8-2020

An Assessment of the Utilization of Geriatric Depression Screenings in Primary Care Providers

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Clinical Research Project

Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Nursing, College of Nursing and Health Sciences

Mississippi University for Women

Columbus, Mississippi

August 2020

Graduate Committee Approval

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ACKNOWLEDGEMENTS

This manuscript is dedicated to my loving husband, Jeremy, who has been my greatest source of encouragement for the last year. I appreciate your faith, love, and hard work more than you will ever know. To my children, I hope you can see that anything is possible with hard work and determination. I love you and thank you for being patient and understanding. Dr. Pearson, thank you for being frank. Nannie, this is for Pop, who always knew where I was destined to be.

"But be watchful in all things, endure affliction, do the work of an evangelist, fulfill your ministry… I have fought the good fight, I have finished the race, I have kept the faith."
2 Timothy 4:5-7

-Ashleigh Flora

I wish to dedicate my research to my husband, Trae, and our families. Without them, none of this endeavor would have been possible. Their physical and emotional support during this year has been invaluable, and it is because of their prayers and sacrificial love that I was successful throughout the pursuit of such a long awaited and desired personal and professional goal. To all of those who were my "village" during this journey, stepping up and helping me, especially with the pandemic, words cannot express my praise and appreciation to you. There is no doubt in my mind that I would not be where I am today without each and every one of you.

I also owe a huge thanks to Dr. Pearson, who kept my head on straight during this journey. Without her encouragement and support, I would not have made it through. Whether it was an anxiety ridden day or great fear before a test, she was always there to encourage me and speak life into me, even with a simple bible verse. Her small tokens of support turned my discouraged days into days of optimism and hope, and I will never forget her sincere support and proclamation of Godly love evidenced by her actions.

Last, but not least, I owe it all to Jesus Christ who, this year more than ever, kept me grounded, taught me patience, and that He is in control. I am where I am because of His faithfulness in this journey for me and my classmates, and I am humbled that He chose us to care for His people.

"Do not be anxious about anything, but in every situation, by prayer and petition with thanksgiving, let your requests be known to God." -Philippians 4:6

-Shelby Reeves

I want to take this time to thank my husband Randle, and my family for their support during this roller coaster ride of the last year. To my children, I love you and thank you for being so

understanding through this year. I have learned many things this year from all of my awesome preceptors who took the time to teach me and I am so grateful for each of you. Dr. Pearson, thank you for always being my shining light and telling me I could do this. Your positive scriptures and encouraging words will follow me forever. Through all of this, I hope my children see that there is nothing they can't accomplish no matter what circumstances come their way. Hard work and dedication always prevails.

Thank you too my Lord and Savior Jesus Christ for never allowing me to give up on myself. If it wasn't for him I would not be here today waiting to graduate. I have always tried to remind myself that he will never give us more than we can handle.

"I can do all things through Christ who strengthens me" - Philippians 4:13

-Tiffine Prisock

I wish to dedicate this manuscript to my husband, J.P., as without you I would not be where I am today. Thank you for the constant encouragement, prayer, and sacrifice you have made to allow me to chase my dreams. I would also like to acknowledge the following people for their advice, knowledge and assistance with this research project: Dr. Sally Pearson, Dr. Beth Turner, and Dr Carey Mccarter. Your time and patiences were invaluable to me.

"Commit to the Lord whatever you do, and he will establish your plans." Proverbs 16:3
-Devi Moon

I want to dedicate this research project to my parents and my fiance, Jared. I can truly say that I would not be where I am today without their unwavering support. In the moments that I doubted myself, they have been there to encourage, advise, listen, and love me when I needed it the most. I would also like to thank my advisor, Dr. Sally Pearson, for investing in my future as a nurse practitioner. Lastly, I would like to give the glory and honor to Jesus; without Him, I am nothing! He has given me the patience, strength, and endurance I needed for this endeavor.

But he said to me, "My grace is sufficient for you, for my power is made perfect in weakness." Therefore I will boast all the more gladly about my weaknesses, so that Christ's power may rest on me. - 2 Corinthians 12:9

- Rachel Romero

Abstract

The purpose of this study was to determine the practices of primary care providers in relation to screening and treating geriatric depression. According to the Geriatric Mental Health Foundation (GMHF), depression and suicide are significant public health issues for older adults, noting that depression is one of the most common mental disorders experienced by elders. Research indicates the issue of geriatric depression is poorly approached by providers and patients do not receive appropriate care. Depression cannot be measured with lab or diagnostic tests; the only way to assess depression is to screen patients by asking questions. When screening for depression, understanding that follow-up with treatment is equally as important as the diagnosis is imperative. Currently, the United States Preventative Services Task Force (USPSTF) has very narrow guidelines that recommend screening for depression in the general adult population, with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up.

Permission to conduct the study was initially obtained from the Institutional Review Board at Mississippi University for Women. Providers were asked to complete a multi-question survey created by the researchers, indicating current depression screening practices, which was available on both Survey Monkey and on paper. Upon obtaining 100 surveys, 99 were included in data analysis and 97% of respondents identified as a nurse practitioner.

Upon analysis of the statistical data, the research questions were reviewed and are as follows:

1) Do primary care providers perform depression screening on geriatric patients?

2) What barriers exist to performing depression screening on geriatric patients?

3) If geriatric patients are identified as at risk for depression, what interventions are being utilized by primary care providers to address this issue?

The data indicated 40% of the surveyed providers reported screening every geriatric patient for depression, but the vast majority do not automatically screen geriatric patients for depression. Data also indicated barriers to screening every geriatric patient for depression included time constraints, patient declination, the screening being deemed unnecessary, or lack of reimbursement. Approximately one-third of providers admitted to not having time to screen patients for depression. Fifteen percent of providers identified the patient declining being screened as a barrier. Twelve percent of providers felt the screening was unnecessary, and researchers were unsure of the criteria utilized by the provider to deem depression screening unnecessary.

The researchers determined in the third question what interventions were implemented by providers upon the patients having a score indicative of depression. The options available were medication(s), psychiatry, therapy, or multiple combinations of the three options. The research indicated no statistically significant pattern of treatment is being followed by providers, although medication alone or with other options was used by a majority of respondents.

The researchers determined primary care practitioners are not adequately screening and treating geriatric depression.

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CHAPTER I

Dimensions of the Problem

Introduction to the Problem

Depression affects almost 10% of the adult population in the United States but often goes unrecognized and untreated (Haefner, Daly & Russell, 2017). The World Health Organization (WHO) predicts depression to soon be the second leading cause of disability. Recognizing signs and symptoms of depression then lacking confidence to treat the disorder are limitations many primary care providers acknowledge. Approximately 20% of adults will be affected by a mood disorder needing treatment, and 8% of the world's population will have a major depressive episode. The American Foundation for Suicide Prevention estimates 19 million Americans, or about 9.5% of the U.S. population, experience depression at any given time, and more Americans suffer from depression than heart disease, cancer, or HIV/AIDS (Haefner et al., 2017).

Seven percent of Americans over the age of 12 have depression, and females have higher rates of depression than males in every age group (Pratt & Brody, 2014). The rate of depression increased by age, from 5.7% among youth aged 12 to 17 years to 9.8% among adults aged 40 to 59 years; however, adults aged 60 years and over had a significantly lower rate of depression (5.4%) than those aged 18 to 59 years. The highest rate of depression, 12.3%, was found in women aged 40 to 59 years. The lowest rates of depression were for males aged 12 to 17 years (4.0%) and males 60 years and over (3.4%). Almost 43% of persons with depression reported serious difficulties in work, home, and social activities. Rates of difficulty with work, home, or

social activities related to depressive symptoms increased as the severity of symptoms increased, from 45.7% among persons with mild depressive symptoms to 88% among individuals with severe depressive symptoms. Rates of serious difficulty with work, home, or social activities related to depressive symptoms also increased as symptom severity increased, from 3.9% among persons with mild depressive symptoms to 15.8% among persons with moderate symptoms, and 42.8% among those with severe symptoms. Only 35% of individuals with severe symptoms reported having contact with a mental health professional in the previous year. Rates of seeing a mental health professional increased as severity of depressive symptoms increased in all race groups. Less than 20% of Americans with moderate depressive symptoms reported having seen a mental health professional in the last year. About 5% of persons with no depressive symptoms and 13% of persons with mild symptoms have also seen a mental health professional in the past year. Hispanic persons with mild depressive symptoms were less likely to have seen a mental health professional than non-Hispanic black or non-Hispanic white persons with the same level of symptoms. Among persons with moderate or severe depressive symptoms, no significant differences were observed in the rate of seeing a mental health professional by race and origin (Pratt & Brody, 2014). According to the Mississippi State Department of Mental Health (2017), 21% of Mississippians have been diagnosed with depression.

Depression is the most common mental health problem in the elderly and places a significant burden on patients, families, and communities (Weise, 2011). Prevalence studies suggest 14% to 20% of the elderly living in the community experience depressive symptoms, with higher rates among hospitalized and long-term care resident elderly (Weise, 2011). Depression is one of the most common mental disorders experienced by elders (Geriatric Mental Health Foundation [GMHF], 2008). Major depressive disorders affect 65,000 Americans aged 65

years and older. That statistic fails to include elders suffering from generalized depressive symptoms or milder diagnoses of depression. Fortunately, depression is treatable by a variety of means; however, only 10% of individuals affected received treatment. The current geriatric population seems to be experiencing depressive disorders at significantly higher rates than previous groups, and the depression rate is anticipated to triple over the next 80 years. Depressed older adults tend to use health services at high rates, engage in poor health behaviors, and are more likely to attempt suicide. Older adults have the highest rate of suicide of any age group, accounting for over 20% of suicides annually (GMHF, 2008).

Background of the Problem

Depression is a chronic health issue in the United States, particularly in the elderly population; however, the issue of geriatric depression is poorly approached by providers and patients do not receive appropriate care. For older adults, risk factors of depression include disability, poor health status, complicated grief, chronic sleep disturbance, loneliness, and a history of depression. The presence or absence of risk factors alone cannot distinguish patients with depression from patients without depression (Siu & USPSTF, 2016). At least one of the risk factors could unknowingly be affecting any patient who enters the clinic, which is why screening cannot be based on appearance, attitude, current emotion, or another temporary status that could easily cause depression to be missed. Even more startling, over 45% of adults who commit suicide see a physicians within a few months of death, and more than one-third visit a provider within the week of suicide. For this reason, accurate assessment of depression is critical (Ahmedani et al., 2014).

Depression can cause mental, physical, emotional, and functional distress that may remain latent unless specifically identified by a health professional (National Institute of Mental

Health [NIMH], 2016). The symptoms may be vague at first and present gradually over time. The effects of depression can range from overt mental manifestations to physical symptoms of an illness, thus making diagnosing depression a challenge. Signs and symptoms of depression will vary with each individual but can include persistent sadness, anxiety, or "empty" feelings. Symptoms can also include feelings of hopelessness, guilt, pessimism, worthlessness, helplessness, irritability, restlessness, loss of interest in activities or hobbies once pleasurable, decreased interest in sex, fatigue, difficulty concentrating, poor detail recall, insomnia, early-morning wakefulness, excessive sleeping, overeating, appetite loss, thoughts of suicide, suicide attempts, pain, headaches, and digestive problems (NIMH, 2011).

When screening for depression, providers must understand the treatment is equally as important as the diagnosis. Unutzer et. al (2006) performed a research study to determine the effect of a primary care-based collaborative care program for depression on suicidal ideation in older adults. In a randomized, controlled trial of 18 diverse primary care clinics, 1,801 adults aged 60 years and older with major depression or dysthymia were randomized into two groups of a collaborative care model. The first group had access to a depression care manager who supported antidepressant medication management prescribed by the primary care physician and offered a learning course, "Problem Solving Treatment in Primary Care," for a period of 12 months. The control group received care as usual. Participants had independent assessments of depression and suicidal ideation at baseline and three, six, 12, 18, and 24 months using the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (SCID). At baseline, 139 (15.3%) intervention participants and 119 (13.3%) control subjects reported thoughts of suicide. Intervention participants had significantly lower rates of suicidal ideation than controls at six months (7.5% vs 12.1%), 12 months (9.8% vs 15.5%), and

even after intervention resources were no longer available at 18 months (8.0% vs 13.3%) and 24 months (10.1% vs 13.9%). The research helps confirm the importance of depression treatment (Unutzer, 2006).

Depression cannot be measured with lab or diagnostic tests; the only way to assess depression is to screen patients by asking questions. Tools used in the primary care setting should be brief, accurate, easy to read and use, self-evaluating, free of charge, and easily integrated into daily practice (Haefner et al., 2017). Barriers to screening include time constraints of appointment times and the uncertainty of whom and when to screen. Primary care providers (PCPs) play a major role in addressing the issue because PCPs are the first contact in the healthcare system. In primary care, mental health symptoms often go undetected despite the clues present (Haefner et al., 2017).

Currently, the United States Preventive Services Task Force (USPSTF) has written guidelines that recommend screening for depression in the general adult population, including pregnant and postpartum women, to be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up. There are several commonly used depression screening instruments including the Geriatric Depression Scale, Patient Health Questionnaire (PHQ) in various forms, Beck Depression Inventory (BDI), Major Depression Inventory (MDI), and Self Rated Depression Scale (SDS), later called the Zung Self-Rated Depression Scale (ZSDS). Further recommendation involves all positive screens resulting in additional assessment that takes into consideration the severity of the depression along with coexisting psychological problems such as anxiety, panic attacks, substance abuse, alternate diagnoses, and chronic medical conditions (Siu & USPSTF, 2016). There is not necessarily one specific tool designated as the most appropriate tool to utilize in screening patients. Upon

screening and a patient having a positive screen, they should be adequately treated and followed up on. Treatment recommendations for geriatric depression varies slightly between various organizations, but overall the importance of both pharmacological and psychotherapeutic interventions, either individually or in combination, are preferred.

Statement of the Problem

Depression screening may not be occurring in primary care settings, and in turn, patients may not be receiving the care needed. For better health and quality of life, evaluation, prevention, and treatment of late-life depression in elderly patients is essential. The researchers believe providers are not following guidelines set forth by the USPSTF to regularly screen all geriatric patients for depression with a tool of choice.

While there are many instruments available to measure depression, the Geriatric Depression Scale (GDS), first created in 1982 has been tested and used extensively in the older population. There is both a short form and a long form of the GDS; the Short Form consists of 15 items, and the Long Form consists of 30 items. Questions from the Long Form GDS evidenced in studies as having the highest correlation with depressive symptoms were utilized in creating the Short Form. Participants respond to statements by answering "yes" or "no" in reference to feelings over the past week. Of the 15 items on the Short Form, 10 indicated the presence of depression when answered positively, while the rest indicated depression when answered negatively. Scores of zero to four are considered normal, depending on age, education, and complaints. A score of five to eight indicates mild depression, nine to 11 indicates moderate depression, and 12 to 15 indicates severe depression (Greenberg, 2019).

The PHQ-9 is the first self-reporting questionnaire designed for use in primary care and utilizes the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) diagnostic criteria

for depression. The PHQ-9 can be used as a diagnostic tool for both minor and major depression and is a self-administered, nine-item questionnaire specific to depression, developed as a self-report version of the Primary Care Evaluation of Mental Disorders (PRIME-MD). Each response to the nine items of the PHQ-9 are given a numerical value, with 0 representing "not at all," 1 representing "several days," 2 representing "more than half the days," and 3 representing "nearly every day." The sum of the nine questions are then totaled, with a score ranging from 0 to 27. A score of 0 indicates no depressive symptoms and a score of 27 indicates all symptoms occurring nearly daily. Major depression is diagnosed if five or more of the nine symptoms have been present at least more than half the days in the past two weeks and one of the symptoms involves either depression or anhedonia. Minor depression is diagnosed if two to four symptoms have been present at least more than half the days in the past two weeks and one of the symptoms is either depressed mood or anhedonia. The PHQ-2 is an abbreviated version of the PHQ-9 and inquires only about depressed mood and anhedonia (Phelon et al., 2010).

The Beck Depression Inventory (BDI) is a self-administered, multiple choice, 21-item tool designed to detect the presence of depression in adolescents and adults by measuring characteristic attitudes and symptoms of depression. Each item corresponds to a specific category of depressive symptoms and is purposed to describe a specific manifestation of depressive behavior. Each category has a graded series of four statements that are ranked to reflect severity from zero to four. Totaling the scores of all 21 questions produces a score indicative of both the presence and severity of depression (Beck et al., 1961).

The Major Depression Inventory (MDI) is a self-rating scale used for the diagnosis or measurement of depression, according to both DSM-IV major depression and ICD-10 moderate to severe depression criteria (Zung, 1965). There are 10 items, or symptoms, listed in a specific

order, and the patient is to self report either a "present or absent" option. The selected symptoms must have been present nearly every day during the past two weeks. For the diagnosis of major depression, either the first or second item should be among the five of nine items present. Items four and five are combined and only the highest answer category is considered. As a measuring tool, the items are given a value (0 to 5) and summed up to a theoretical score of 0 to 50. The cutoff score is 26 for the diagnosis of major depression (Zung, 1965).

Developed in 1965, the Zung Self-Rated Depression Scale (SDS), originally called the Self-Rating Depression Scale, is another quick and inclusive self-administered depression screening tool. The tool is a 20-item screening test where half the 20 items are positively worded and half are negatively worded. The scale has been used as a depression screening tool in general practice and in clinical research to monitor treatment. The SDS has a key for scoring with scores ranging from 1 to 4. Ultimately, scores greater than 50 indicate mild depression, scores greater than 60 indicate moderate depression, and scores greater than 70 indicate severe depression (Zung, 1965). Other depression screening tools exist, targeting specific populations, such as hospitalized or dementia- diagnosed patients, which are not covered in this study.

Purpose of the Research Project

The purpose of this study is to determine whether primary care providers screen all patients within the geriatric age range, and if so, what screening method is utilized, as well as what interventions are prescribed as a result of a depressive diagnosis. Additionally, if providers are not screening all geriatric patients for depression, the researchers sought to determine what barriers prevent providers from doing so. The idea of a successful study would result in a positive change in the future of geriatric patients by increasing the occurrence of screening

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geriatric patients to assist in appropriate and prompt diagnosis and treatment of depression and improving quality of life.

Significance of the Research

This study will be useful to providers to determine if the current existing screening methods are adequate to effectively and efficiently screen for geriatric depression and provide needed care. This study has the potential to help primary care providers gain insight into common barriers to screening all geriatric patients, how to perform screenings according to guidelines, and how to focus screening toward intervention, treatment, and awareness of the growing issue of potentially life-altering geriatric depression. The first step to improvement is realizing there is a problem, and the problem identified in this study is the failure to effectively screen all geriatrics for depression.

It can easily be assumed that depressed geriatrics have poorer quality of life and increased risk of suicide in comparison to the nondepressed. The only way to effectively treat depression is to first diagnose the disorder, and without effective screening, diagnoses are missed, causing patients to go untreated. The researchers are certain that by increasing awareness of the lack of effective depression screening and subsequent lack of treatment, changes can be made to avoid barriers to screening, to screen more effectively, to diagnose appropriately, treat adequately, and improve patient outcomes.

Conceptual Framework

Orem's Self-Care Deficit Theory guided this research project. The theory recognizes and addresses when an individual is not able to adequately carry out self-care and supportive care is needed (Younas, 2017). In addition to the self-care deficit, the theory also encompasses overall well-being and enables the nurse to recognize if the patient is with a sound mind and ability to

manage self-care. The need for evaluation of providers assessing depression in the elderly is crucial to bring awareness to the deficit. Depression in the elderly is a chronic issue that can affect self-care and is relatable to Orem's Self-Care Deficit Theory (Younas, 2017).

Self-care involves individuals managing personal care to maintain life, health, development, and wellness (Denyes et al., 2001). Adequate nursing assessment and knowledge is necessary to recognize a deficit and bridge the gap for the patient upon identification of a self-care deficit. The Self-Care Deficit Theory encompasses four theories, including self-care, self-care deficit, nursing systems, and dependent care. In identifying self-care, a health care provider is essentially identifying the individual's mental stability. In the evaluation of depression, a health care provider's goal is to identify the problem and assess a patient's ability to perform self-care. The provider needs to ask if the patient is not performing self-care because the individual is depressed. For better health and quality of life, evaluation, prevention, and treatment of late-life depression in elderly patients is essential (Denyes et al., 2001).

The Self-Care Deficit Theory is relevant to this research project in many ways. First, the theory emphasizes assessment of overall well-being, and the depression scale in the elderly is a key factor in being able to assess the patient as a whole. Secondly, Orem's Self-Care Deficit Theory recognizes where a gap in the patient's self-care lies and helps bridge the gap. As a primary care provider, diagnosing a patient with depression and starting appropriate intervention is bridging the gap. Lastly, the assessment of the caregiver by the provider and the ability to identify high demands in caring for a dependent elderly patient and the strains care can cause on the mental stability of the patient and the caregiver is crucial in the well-being of the patient. In examining all aspects of the self-care deficit model and assessing each patient for depression, the

provider is giving the practice a more organized body of knowledge to better assess and care for each patient.

Research Questions

1)   Do primary care providers perform depression screenings on geriatric patients?

2)   What barriers exist to performing depression screenings on geriatric patients?

3)   If geriatric patients are identified as at risk for depression, what interventions are utilized by primary care providers to address the issue?

Definition of Terms

For this study, there were several terms that needed to be defined as they apply to the study. The theoretical and operational definitions follow, respectively.

Primary Care Providers

Theoretical. Health care professionals who provide services in collaborative teams, but are ultimately responsible for the patient (American Academy of Family Physicians [AAFP], 2017).

Operational. Nurse practitioners, physician assistants, Doctors of Osteopathy (D.O) or Medical Doctors (M.D.) who manage chronic conditions and/or work in primary care clinics.

Depression Screening

Theoretical. Utilizing a tool to discover the existence of depression, with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up if depression is diagnosed (Maurer et al., 2018).

Operational. Patient Health Questionnaire-2 (PHQ-2), Patient Health Questionnaire-9 (PHQ-9), Geriatric Depression Scale (GDS), Beck Depression Inventory (BDI), Center for

Epidemiological Scale for Depression (CES-D), Major Depression Inventory (MDI), Zung Depression Scale (SDS) are commonly used tools to assess for depression in the elderly, and utilization of the tools was researched as a part of this study.

Barriers

Theoretical. Something that impedes an intention (Merriam-Webster, 2019).

Operational. Unfortunate situations that lead to failure of ability to initiate or complete depression screening in elderly patients.

Geriatric Patient

Theoretical. An age group that is not easy to define. "Older" is preferred over "elderly" but both are equally imprecise. Over 65 years is the age often used. (Besdine, 2019).

Operational. Persons at least 65 years of age or older who require medical treatment.

At-Risk for Depression

Theoretical. Being capable of developing or being affected by a mood disorder that causes a persistent feeling of sadness and loss of interest. Major depressive disorder or clinical depression affects how an individual feels, thinks and behaves (Mayo Clinic, 2018).

Operational. An individual is defined as depressed or showing signs that could progress into being depressed, as evidenced by self reporting or defined as having an "at risk" score on a specific depression screening tool. The "at risk" scores are individually defined depending on which screening tool is being utilized.

Assumptions

There are several assumptions the researchers had at the time of development and initiation of the study. First, the researchers assumed providers surveyed are honest, both in admission of being a provider who fits the criteria for taking part in the survey and with answers

on the survey. Without this component, the study's results would be greatly inaccurate when generalized to the current medical field. Second, the study assumed researchers would obtain adequate responses on the survey. There was no way to control the number of responses, and researchers assumed in the forefront that participation would be adequate enough for results. Third, the researchers speculated results would be generalizable.

Limitations of the Study

Limitations in this study included, but were not limited to, the lack of time available for completion of the study, availability of the electronic survey to providers with readily available internet access, and the small inclusion of a provider seeing a certain type of patient. The time constraint involved having less than a year to develop, initiate, and complete the study. The lack of time caused hindrance for the researchers because getting the most accurate results from a study takes time, both to conduct and facilitate adequate initiation of surveys. With more time, the researchers could have distributed more paper surveys to additional concrete clinics, but with such a small amount of time, the electronic method was most appropriate and likely limited response and results. The internet availability could deter some providers from participation. Not all individuals have internet access, especially in parts of the rural south, which is a portion of the targeted population. The inclusion criteria included being a nurse practitioner, physician, or physician's assistant who sees and manages primary care for patients over the age of 65 in the southeast region of the United States. The criteria could have left out a lot of room for generalization, but the surveyed population was limited due to time constraints.

CHAPTER II

Review of Literature

The purpose of this study is to determine if primary care providers are screening for depression in elderly patients. The most current literature was reviewed and analyzed to determine the latest guidelines and recommendations regarding primary care providers' practice in assessing depression in the elderly. Literature structured on Orem's Self-Care Deficit Theory was utilized as a guide for this research. This chapter will examine and describe the most recent literature accumulated outlining depression scale assessment tools, effects of undiagnosed and untreated depression in the elderly, and barriers for screening in the primary care setting.

Literature Related to Conceptual Framework

Nursing theorists help guide research and nursing practice. Orem is a well-known theorist recognized for the Self-Care Deficit Theory. Orem developed the theory to elaborate on vitality and importance of self-care in individuals. The theory was initially developed to recognize and address when an individual was unable to independently carry out self-care, warranting nursing care and support and prioritizing overall well-being in individuals. In the aging population, several factors come into the assessment of an occurring self-care deficit, such as depression, dementia, and physical limitations. In order to lay a concrete foundation for the current research, researchers appropriately chose the Self-Care Deficit Theory as a framework. The need for evaluation of providers assessing depression in the elderly is crucial to bringing awareness to the deficit, as well as increasing evidence-based practice and developing better habits for the future as healthcare providers. This will decrease the occurrence of undiagnosed depression leading to better outcomes and improved, more satisfactory quality of life. Depression in the elderly is a chronic issue that can affect self-care and is most relatable to Orem's Self-Care Deficit Theory.

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Many groups have used Orem to guide research. Self-care ability could be explained by three reinforcing factors, including self-care agency, being active, and feeling satisfied; along with four risk factors of receiving help, age, perceived helplessness, and close contacts with other people (Soderhamn & Cliffordson, 2001). The aim of the study was to investigate, through secondary analysis, the structure of self-care in a group of elderly individuals. The structure of Orem's theory guided research to explain the self-care deficit in the group of elderly (Soderhamn & Cliffordson, 2001).

Self-care agency is a complex, well-developed theory that enables adults and maturing adolescents to see and understand the factors that must be controlled or managed in order to regulate functioning and development and the ability to decide and perform proper care measures that contribute to daily self-care needs (Orem, 1995). Therapeutic self-care demands consist of a summation of measures of self-care required by individuals to meet self-care requisites concerning conditions and circumstances. When an elder is assessed and deemed depressed, a self-care deficit is concurrently noted. Identifying the occurring self-care deficit and facilitating support is necessary (Orem, 1995). In researching the use of depression scales in the elderly, an awareness is brought to both the readers and the researchers (Denyes et al., 2001)

Studies Regarding Tools Used for Geriatric Depression Screenings

Haefner et al. (2017) completed a study with the purpose of determining the effectiveness of the Patient Health Questionnaire (PHQ-9) in screening patients for depression versus generalized patient self-reporting. During the lifespan, 20% of adults will be affected by a mood disorder, with 8% of the population experiencing a major depressive episode (Haefner et al., 2017). In 2013, 9.5% of the American population experienced depression at any given time, which is more than HIV/AIDS, heart disease, or cancer. Although depression is common and

prevalence is only expected to rise in the future, depression is a diagnosis that often goes missed and is undertreated. The most recent guidelines by the USPSTF state depression should be screened at yearly wellness visits, and compliance with screening has increased due to Medicare and other third parties recognizing the underdiagnosis of the chronic illness and reimbursing screening as an incentive (Haefner et al., 2017). Screening is a vital responsibility that primary care providers should accept and take full advantage of to positively affect the present depressive state and prevent future generations from experiencing a cognitive decline related to depressive symptoms. The Neuman Systems Model is the framework used for the study, due to emphasizing the holistic outlook on wellness and nursing. The model promotes an open relationship between patient and provider, which encourages early recognition and intervention for stressors. Facilitating optimal quality of life is a focus in the framework is the basis for identifying precipitating factors for depression at the primary care level.

The purpose of the study by Haefner et al. (2017) was to identify if the PHQ-9 was a better screening tool for depression than the standard personal reporting method of depression identification. The probable reason for depression being under-diagnosed is because depression cannot be measured in a lab test or on a machine; depression is a completely subjective determination to be made, requiring appropriate and adequate, thorough screening to be appropriately recognized. The study supports improvement of care at the primary level, and in order to improve management of depression, the most accurate screening tool must be utilized.

Conduction of the study involved a sample of 100 patients in a mid-Michigan suburban area primary care clinic who were at least 20 years old, not currently diagnosed with depression, not currently taking an antidepressant, and not in a post-partum window of zero to six months. Two separate chart reviews were completed, including one review of 100 charts of patients

utilizing a self-reporting method of depression, and the other review of patients who completed the PHQ-2, which is the first two questions of the PHQ-9 screening tool. If patients taking the PHQ-2 scored a 3 or higher, indicating depressive symptoms, the patients were to go on and complete the remaining seven questions of the PHQ-9. The primary care provider reviewed the results and made recommendations (Haefner et al., 2017).

The study determined 11 patients ultimately had depressive symptoms as evidenced by PHQ-9 scores greater than 10. More women than men demonstrated depressive symptoms, which is consistent with historical evidence that women are 70% more likely to experience depression than men. Most participants were of white ethnicity, with an average age of 60 years. It is also determined African Americans are less likely to express depressive symptoms than white patients. The study concluded that PHQ-9 is more reliable than self-reporting (Haefner et al., 2017).

The main limitation of this study was the sample utilized for the research. The researchers limited the population to which results can be generalized by reviewing charts of only one clinic's patients. The number of white patients whose charts were reviewed far surpassed the number of African Americans utilized, which limits the generalization as well. The charts reviewed included more women than men, which could have made results not completely accurate. Strengths included randomization for sample selection and making sure all of the reviewed charts belonged to patients who were not treated for depression and had never had depression.

The study is applicable to the current research for several reasons. Being a recent article, some of the statistics used still hold true and support current research. The PHQ-9 is still widely used, meets current guidelines, and will be part of the current researchers' study. The article

supports the use of the PHQ-9 screening tool and defines the tool as being more reliable than self-reporting alone, which justifies use in primary care today as an option for screening for depression. The study mentions including a follow-up visit if a screened patient meets criteria for depression and treatment is pursued. Part of the current researchers' study will incorporate follow-up in the survey given to providers. There are other instruments for assessing depression, such as the Geriatric Depression Scale, both five and 15 item versions, as well as The Center for Epidemiologic Studies-Depression scale and the Cornell Scale for Depression in Dementia, which will all be options on the current researchers' survey. The current researchers' study will, in one way or another, be following up on recommendations by the researchers in this article by seeing how providers have utilized the research in practice since publication in 2017.

A second study addressing tools used in the depression scale titled, "Psychiatric assessment and screening for the elderly in primary care: Design, implementation, and preliminary results," was reviewed. The study revealed that further assessment was needed to determine if providers in the primary care setting are assessing for depression appropriately in the elderly (Abrams et al., 2015). The authors performed a study for the purpose of integrating collaborative care models (CCMs) to give elderly patients better access to mental health services. The CCM gives providers proper tools, a protocol, and guidelines for frequency of depression screening for established patients based on if the initial screening is positive or negative. A central feature of PASSE-PC is case-finding that uses on-site screening for symptoms of depression and anxiety, followed by targeted psychiatric treatment when indicated (Abrams et al., 2015).

The study was conducted at the Irving S. Wright Center on Aging, the outpatient group practice of the Weill Cornell Medical College's Division of Geriatrics and Palliative Medicine

(Abrams et al., 2015). The practice provides primary care to an older patient population (mean age is mid-80s) that is mostly Medicare-insured, female, and non-Hispanic white. All patients received primary care from the Wright Center on Aging. Consistent with requirements for enrollment at the Wright Center, subjects were considered for inclusion if individuals were 50 years of age or older and were receiving, or planned to receive, primary medical care at the practice. Excluded were patients who, based on clinical impression, had sensory or cognitive impairments severe enough to preclude meaningful participation in screening for anxiety or depression. Patients with positive initial screens (PHQ-9 score > 5 or GAD-7 score > 5) were rescreened every three months or at the next medical visit closest to a 3-month interval. Patients with negative initial screens were rescreened yearly or sooner at the discretion of the PCP. A database was created that included a unique identification number for each subject, demographics (age, gender, insurance status), dates of screening and rescreenings, PHQ-9 and GAD-7 scores, and disposition. The total number of subjects screened during the study period was 1505, comprising 38.2% of the 3,940 unique patients seen at the practice during the study. The clinical yield from screening was substantial, as indicated by the rates of subjects screening positive for depression (37.1%) and anxiety (26.9%), as well as the high mean scores on both screening instruments (Abrams et al., 2015).

This study is very relevant to the current project for several reasons. The results from the screening classified age, female gender, and living alone as links to depression and anxiety, and revealed a high frequency of suicidal ideation (Abrams et al., 2015). The findings support the current study by illustrating the importance of screening for depression in the primary care clinic.

Usage of the Patient Health Questionnaire-9

Phelon et al. (2017) performed a correlational research study to determine the diagnostic performance of the Patient Health Questionnaire-9 (PHQ-9) compared to the 15-item Geriatric Depression Scale (GDS). Depression in the elderly population was associated with an increased risk of mortality, healthcare utilization, functional decline, and poorer quality of life (Phelon et al., 2017). The study determined screening and detection in older adults in primary care is imperative, as a correct diagnosis is required for proper, effective treatment. Additionally, the researchers argued that primary care providers are at a disadvantage in recognizing depression in the elderly when depression symptoms and comorbid medical illness symptoms overlap, potentially leading to underreporting of depressive symptoms by older adults. According to the researchers, the PHQ-9 is the first self-reporting questionnaire designed for use in primary care that reflects the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (DSM-IV) diagnostic criteria for depression. The PHQ-9 can be used as a diagnostic tool for major and minor depression; whereas other tools, such as the GDS, can only be used for screening because the tools do not adhere to the DSM depression diagnostic criteria, and additional evaluation is required to establish a diagnosis of depression with a positive screening. The PHQ-9 had not been validated with elderly in U.S primary care prior to this study (Phelon et al., 2017).

Phelon et al. (2017) identified two hypotheses. First, researchers hypothesized the PHQ-9 would have test performance characteristics at least comparable to the GDS (Phelon et al., 2017). Secondly, the PHQ-9 would have less ease of use than other tools, specifically the PHQ-2. The authors did not identify a central theory that guided the research. The research was conducted between November 2006 and August 2007 in two university-affiliated primary care clinics in Seattle, Washington. The sample consisted of 227 established patients aged 65 years or

older presenting to the clinics for care, omitting patients with severe dementia, unstable medical condition, or non-English speaking. Of the 227 patients who fit the criteria, 121 patients were willing to speak with the researchers, and 71 agreed to participate in the research. The mean age was 78 years (Phelon et al., 2017).

During a routine clinical appointment a research assistant administered the PHQ-9 and 15-item GDS to each participant (Phelon et al., 2017). Then, a geriatric psychiatrist or gerontologic psychiatric nurse practitioner trained in Structured Clinical Interview for Depression (SCID) administration conducted a diagnostic interview for depression. Participants also completed a questionnaire to obtain demographic characteristics (age, gender, race) and diagnosed chronic conditions (Phelon et al., 2017).

The results yielded that almost 25% of participants had a PHQ-9 score of 10 or greater, and nearly 20% had a PHQ-2 score of three or greater (Phelon et al., 2017). Fifty percent of participants had a GDS score greater than five. The SCID was positive for major depression in 12% and minor depression in 13%. Thirty percent of participants needed help to complete the demographics questionnaire, 30% needed help to complete the GDS, and 37% needed help to complete the PHQ-9. If assistance was needed due to poor eyesight or difficulty using a pen, the research assistant orally administered the tool (Phelon et al., 2017). This study validates use of both the PHQ-9 and the GDS for geriatric depression screening. For current research, practitioners are not administering adequate screening, and validation of the tools give additional resources and available practices to primary care practitioners.

Use of the BRIGHTEN Program

Emery-Tiburcio et al. (2017) conducted a study to determine whether the BRIGHTEN Program, an individually tailored, interdisciplinary "virtual" team intervention, would equally

meet the needs of a highly diverse sample of older adults with depression. Low socioeconomic status increases risk of depression, and those with less access to treatment show strong evidence of having chronic depression (Emery-Tiburcio et al., 2017). Researchers hypothesized there would be no difference in depression and quality-of-life treatment outcomes regardless of race, ethnicity, or socioeconomic status of participants (Emery-Tiburcio et al., 2017).

Participants were recruited in nine primary care specialty medical clinics (Emery-Tiburcio et al., 2017). The two largest clinics were federally qualified health centers targeting underserved older adults. Referrals were accepted from other providers and were grouped together for data analysis purposes. Criteria included age of 60 years or older, Spanish or English language proficiency, and a score of 2 or more on the Patient Health Questionnaire-4 (PHQ-4). Excluded patients had cognitive impairment, psychosis, or psychotic disorder (Emery-Tiburcio et al., 2017).

The older adults who screened positive on the PHQ-4 met in person with a bilingual social worker program coordinator (Emery-Tiburcio et al., 2017). The results were sent out to a team of different professionals, including a social worker, psychiatrist, physical and occupational therapist, dietician, and chaplain, among others on the BRIGHTEN team. The results of the study indicated no significant differences at baseline assessment, between racial and ethnic groups or education levels on SF-12 Physical Health Composite scores, SF-12 Mental Health Composite scores, or GDS-15 scores. At the six-month follow-up visit, participants demonstrated significant improvements on the SF-12 Mental Health Composite and GDS-15 scores (Emery-Tiburcio et al., 2017).

The BRIGHTEN program is probably as effective in reducing depression symptoms and improving mental health functioning in a highly socioeconomically and ethnically diverse,

community-dwelling older geriatric population (Emery-Tiburcio et al., 2017). Future research will include a randomized controlled trial of BRIGHTEN for minority older adults diagnosed with cardiometabolic syndrome. Additional research exploring implementation and dissemination of behavioral integration into primary care settings is necessary to ensure older adults, particularly minorities, receive the level of care needed. This study supports the opinion that all older adults, no matter the individual's status in life, need assessment and treatment for depression. This knowledge can assist the primary care provider and other team members in caring for patients so the patient can feel better and enjoy life to an optimal level (Emery-Tiburcio et al., 2017).

Studies on the Effects of Depression in Elderly

Jia and Lubetkinn (2017) performed a cross-sectional study to determine how depression affects the quality of life in elderly Americans, citing depression as a major cause of disability. Depression is often associated with other comorbid conditions and may lead to worsening of health outcomes and loss of life (Jia & Lubetkinn, 2017). The researchers stated providers must distinguish between three levels of depression, mild, moderate, and severe, and described worsened depression coincides with worsened outcomes. The study illustrated validation of PHQ-9 criteria to effectively distinguish between the levels of depression and recommended treatments, and researchers hypothesized increased scores on the PHQ-9 reflected worsening depressive symptoms, which would directly correlate with decreased quality of life (Jia & Lubetkinn, 2017).

The research was conducted by examining respondents' health-related quality of life (HRQOL) scores and mortality status using the National Health and Nutrition Examination Survey (NHANES) Linked Mortality File, which is an ongoing survey of random samples from

the non-institutionalized civilian population of the United States (Jia & Lubetkinn, 2017). The

NHANES asked questions about the frequency of symptoms of depression over the past two

weeks, and patients chose one of four possible responses: not at all, several days, more than half

the days, and nearly every day. The NHANES also asked respondents to report numbers of their

physically unhealthy days, mentally unhealthy days, and days with activity limitations during the

past 30 days, in addition to ranking general health from 1, being excellent, to 5, being poor. The

study also used a previously constructed mapping algorithm based on respondents' age and

answers to the four questions to obtain values of a frequently used preference-

based HRQOL measurement, the EQ-5D index, to calculate QALY, providing valid estimates

of EQ-5D, and rendering the bias of estimated scores to be less than 1%. The NHANES also

collected data regarding socioeconomic and demographic characteristics, as well as certain

diseases, which the researchers included in the analyses of outcomes and associations of

variables. The analysis examined age, gender, race, ethnicity, educational achievement, income,

marital status, and number of comorbidities. The NHANES also calculated respondents' family

income to the Federal Poverty Level (FPL) ratio. The researchers used 138% FPL, the Medicaid

income eligibility limit, as the cut-off point for income (Jia & Lubetkinn, 2017).

The researchers focused the sample to include only respondents aged 65 years and older,

yielding a total sample size of 3,680 (Jia & Lubetkinn, 2017). The researchers found 82.1% of

participants had minimal or zero depressive symptoms, 13.8% had mild depression, and 4.1%

had MDD, noting that only eight participants had a PHQ-9 score in the range of severe

depressive disorder (20 or higher) and were combined with those having a PHQ-9 ranging from

15 to 19. Depressive symptoms were noted to be more common among women and those with

lower socio-economic status. As a whole, the study showed even mild depression is associated

with a substantial loss in QALY in the elderly, similar to having diabetes or heart disease (Jia & Lubetkinn, 2017).

Studies on the Effects of Depression and Comorbities

Gallo et al. (2016) performed a longitudinal analysis study of the relationship between depression, multimorbidity, and mortality of older adults in primary care. The objective of the study was to determine if evidence-based depression care management would improve long-term mortality risk among older adults with increasing levels of medical comorbidity (Gallo et al., 2016). Depression is a significant problem in the older adult population and is often overlooked due to other medical conditions that have taken precedence in the eyes of the medical provider. Diabetes, congestive heart failure, and chronic obstructive pulmonary disease are just a few of the major health conditions older adults are faced with regularly. Multi-morbidity is often defined as two or more concurrent medical conditions and has received attention as a focus of intervention because of an association with increased risk for all-cause mortality, functional impairment, and reduced quality of life. Multi-morbidity also poses a large threat to clinicians, which explains why the provider's focus is on treating these diseases, and less time is designated for focusing on mental health (Gallo et al., 2016).

The researchers asked the following: should the treatment of the medical conditions take precedence over the treatment of depression, and is there a way to make the management of depression a part of the patients' care and have depression hold equal importance as treating the patients' other comorbidities (Gallo et al., 2016) Few studies had been conducted to research the relationship between depression and other comorbidities because most studies only focused on one comorbidity at a time, such as depression and diabetes. The article noted that among Medicare beneficiaries with a claim for depression, 90% also have one or more associated

chronic conditions. Patients who have multiple comorbidities, including depression, may be less likely to adhere to medical or behavioral regimens, leading to functional or physical impairment and increased mortality (Gallo et al., 2016).

Throughout the investigation, the researchers studied the relationship between multi-morbidity and mortality among depressed older adults in primary care practices with a depression management program (Gallo et al., 2016). The sample was chosen from 20 primary care practices in New York City, Philadelphia, and Pittsburgh from May 1999 and August 2001, with individual patients clinically followed for two years. There were 1,204 older primary care patients who completed the Charlson Comorbidity Index (CCI) and other interview questions to establish a baseline. In addition, the study used the Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT) and the Centers for Epidemiologic Studies Depression Scale (CES-D) as tools to collect data for the study (Gallo et al., 2016).

It was evident that depressed patients with medical comorbidities were at an increased risk of death until the patients were provided depression care management services, subsequently decreasing the risk of mortality (Gallo et al., 2016). Depression care management programs could lessen the joint effect of multi-morbidity and depression on mortality. As expected, the higher the comorbidity the higher the mortality, but evidence-based depression care management improves glycemic control in patients with co-occurring diabetes and depression. Medical problems such as heart disease, diabetes, and cancer put patients at a significantly increased risk for depression. Treating diseases and managing depression will increase patients' overall mortality, functionality, and disability.

Studies on the Barriers of Screening for Depression

A thorough research study was conducted to determine the attitudes of older adults toward depression screening in primary care settings and explore a brief educational pamphlet (Shah et al., 2018). The authors of the study believed depressive symptoms in older primary care patients raised a significant concern for the overall health and wellbeing of the population. Depressive symptoms that go unaddressed and untreated can lead to poor health outcomes, suicide, and mortality. The primary care setting is a logical and important point of intervention because most older adults seek mental health services from a primary care provider if mental health services are sought at all (Shah et al., 2018).

The researchers wanted to determine if the older adult population was open and receptive to being screened for depressive symptoms, so the researchers decided distributing a survey was the best option to assess willingness (Shah et al., 2018). The research study was a cross-sectional, descriptive study based on a survey using a pretest and posttest design. Participants were randomly stratified by sex to condition type using a random number generator. The data collection occurred between May 2004 to September 2005. For inclusion in the study, participants had to be 55 years or older and able to read English. Participants were told researchers were interested in participants' opinions about mood, health, and a mood-screening tool used in health care facilities. The two-page pamphlet was written at an eighth-grade reading level and listed the causes of depression, medications causing depressive side effects, medical risks for depression, treatment options, and the rationale for depression screening in the primary care setting. Most participants were able to read the pamphlet in about five minutes. The participants took a pretest survey, a 15 item version of the Geriatric Depression Scale-Short

Form (GDS-SF), an author developed true/false quiz, and a post-test survey about the GDS-SF content (Shah et al., 2018).

Any participants who screened positively on the completed surveys for depression were referred to the appropriate services and, if necessary, assessed for suicide (Shah et al., 2018). Participants ranged from 55 to 89 years old, were predominantly female (84.2%), and reported an average of 3.4 visits to their primary care provider per year. Although some participants recalled a primary care provider asking about mood, most participants (87.9%) did not recall ever being exposed to a depression screen. According to the GDS-SF completed by the participants, approximately 14.3% identified symptoms consistent with a depression diagnosis, and nearly half reported a prior history of depression (Shah et al., 2018).

In addition to the previous findings, researchers interpreted the willingness of the survey participants to be screened for depression was very high (Shah et al., 2018). Most (93.6%) indicated a willingness to be screened for depression at a primary care provider even if the individuals did not feel depressed. Over half (54.7%) reported willingness to complete a depression screen at every visit, although most (93.5%) were willing to complete annual screenings. The majority of older adults felt comfortable being screened by a nurse or medical professional about depression symptoms. Participants felt depression screening was valuable to health and would consider physician-recommended treatments. Older adults also reported feeling the questions were easy to understand, brief, and were not overly personal. The researchers identified the The Geriatric Depression Scale - Short Form was rated as acceptable and brief by most participants and a very good tool for depression screening in primary care or for further research on geriatric depression (Shah et al., 2018). Older adults are generally very willing to fill out the GDS-SF and discuss depression treatment options. The GDS is an excellent tool for

assessment of depression in older adults, and as the research study has shown, the population is open to talking about mental health (Shah et al., 2018).

Another study pertaining to barriers for screening included one titled, "Depression in primary care: Attitudes of novice advanced practice nurses." In 2016, Huey conducted a quasi-experimental, one group pretest/posttest design study for 163 novice APRNs. The primary intention was to evaluate the influence of an online educational intervention on novice APRNs' attitudes, knowledge, and perspectives in caring for depressed patients in the primary care setting (Huey, 2016). Primary care providers, most specifically novice APRNs, are under-diagnosing and undertreating depression in elderly adults. Novice APRNs have the opportunity and responsibility to change the healthcare issue by increasing knowledge and evidence-based practice on depression. A single group of 163 participants completed a pre-test, participated in an online educational intervention, and ended with a post-test to evaluate factors related to depression attitudes of novice nurse practitioners in the clinical setting and improvement based on education (Huey, 2016).

The main hypothesis identified in the study was that depression in adults is often underdiagnosed and undertreated in primary care (Huey, 2016). Novice APRNs with less than three years of experience struggle with confidence in treating depression due to lack of knowledge on how to optimally treat the condition. Huey's (2016) study initially gathered data from several previous studies relating to the problem and ultimately supported the hypothesis.

The study used a sample of alumna from an APRN program in the generalized mid-Atlantic region of the United States to test the hypothesis (Huey, 2016). The method utilized allowed comparison and relevance to the population due to the diverse geographical region in which the participants resided. To qualify as a participant, individuals must have been practicing

as a nurse practitioner for less than three years at the time of the survey and agree to participate

in and complete an online survey series. The project was conducted during February and May

2016 and involved a pretest based on the R-DAQ questionnaire. The pretest included 22 items,

each with response options ranging from 1 (strongly disagree) to 5 (strongly agree), six multiple

choice demographic questions, and one open-ended question. Three domains were covered

throughout the survey: professional confidence in assessing depression in elderly, therapeutic

optimism about depression, and the clinician's perspective about depression recognition and

management in personal practice. An educational implementation was then utilized following the

pretest, placing emphasis on increasing the knowledge base of screening for and management of

depression in primary care. Finally, a posttest was given to assess the increased knowledge base

and confidence level of the novice APRNs on managing depression (Huey, 2016).

Post-educational test scores were substantially higher than pre-test scores (Huey, 2016).

The conclusion could then be drawn that there is always room for improvement in healthcare.

Screening and management of primary care patients and depression in novice APRNs needed the

continuing education provided in the study. An online educational module was successful in

increasing the knowledge base and confidence of novice APRNs regarding depression

management in personal practice (Huey, 2016).

Strengths in the study included utilizing multiple sources to give several points of view

on the practice and perspective of inexperienced APRNs regarding depression management

(Huey, 2016). Utilizing an online outlet increased participation due to convenience for an array

of participants over multiple geographical areas. The study also supported participation and

encouraged participants to take part, due to an incentive opportunity to improve knowledge

through the educational portion of the survey. The study will be helpful in the current research

being conducted by present researchers because of many reasons. The study supports the fact novice APRNs are lacking in knowledge and confidence in managing depression in primary care and also reinforces the need for continuing education in health care. Making healthcare providers aware of supportive resources in patient management is especially important to provide optimal care. The researcher emphasized the significance of providing education to APRNs to increase confidence and knowledge. Being adequately prepared to treat depression is essential in prevention of progression of depression, which can lead to detrimental outcomes (Huey, 2016). The current researchers can use the study to support the vitality of following guidelines set forth by USPSTF and the World Health Organization. Novice APRNs are only a small piece of the providers who are responsible for providing care to patients with depression, and this study gave an interesting point of view in the area of inexperienced APRNs.

CHAPTER III

Methodology

The purpose of this study was to determine whether primary care providers screen all geriatric patients for depression, and if so, by what method and what interventions were consequently prescribed. If providers are not screening all geriatric patients for depression, what barriers exist? Depression is a common chronic health issue in the United States, particularly in the elderly population. Providers should administer depression screening to all geriatric patients (Siu & USPSTF, 2016). The researchers think providers are not following the general guideline set forth by the USPSTF to screen all geriatric patients.

Design of the Study

A quantitative, descriptive survey design was utilized. Descriptive research is often utilized in the healthcare setting for reporting statistics and occurrences of interest to researchers. This research design was utilized to show that results are not experimental and have not been manipulated by an experimental design (Polit & Beck, 2012). The survey included questions about demographics, role as a healthcare provider, years of experience, and other questions specific to determining if and how providers personally screen patients for geriatric depression. The researchers chose to use a survey to obtain information about providers' self-reported utilization of current guidelines. Utilization of either an online survey or paper survey allowed researchers to obtain results from primary care providers across the country.

Protection of Human Subjects

Permission to conduct the study was initially obtained from the Institutional Review Board at Mississippi University for Women. Upon beginning the study, providers were asked to complete a questionnaire indicating current depression screening practices. During data

collection, anonymity was maintained via non-traceable technology. No personal information or identifiers were included on data collection forms. No data was saved on hard drives. Once data was compiled for analysis, data was stored on a single jump drive that was secured in the researchers' advisor's locked office. Additionally, paper copies of the survey and envelopes for participants to seal responses were distributed to brick and mortar clinics at a professional meeting. Sealed envelopes were collected, transported to the researchers' advisor's locked office and remained sealed until data collection was complete, at which time envelopes were opened and data was included.

Following completion of the research project, all data was deleted from the jump drive, and the jump drive was destroyed. The survey account was deleted, and the data maintained on that site was removed according to the website's policy. Paper surveys were also destroyed.

Setting

The setting for the research study was the United States and associated territories. The research was conducted as an online survey and identical physically distributed survey. The survey questionnaire was distributed through social media postings by the researchers on Facebook. Links to the survey were posted to various professional group sites for physicians, nurse practitioners, and physician assistants to access at a time of convenience. The pages to which the survey were posted were all closed-member groups, reducing the possibility of unqualified subjects completing the survey. Members of the groups were invited to take the survey and share the survey with colleagues.

Population

The population for the research included primary care providers from the following disciplines: primary care nurse practitioners, physician assistants, and physicians. The reasoning for utilization of the population was to prevent irrelevant data to be added to the statistics. Primary care providers were the specific providers who were the focus of the research.

Data Collection

A multi-question questionnaire created by the researchers was created via SurveyMonkey and on paper. Scores were not given, but the answers on the questionnaire were sorted and organized to develop percentages of each answer given. Upon building the answer-based statistics and thorough analysis, eventual conclusions were drawn to form outcomes. The purpose of the research study and the opportunity to participate were advertised on Facebook in multiple closed-member groups composed of medical professionals. The survey was anonymous and completed on a voluntary basis with no monetary incentives. Each individual filling out the survey had no identifying data connected to the provider or place of employment. Each survey implied an informed consent, stating that by taking the voluntary survey, participants were consenting to participation. Additionally, the survey link was emailed to a list of primary care providers. Paper surveys were distributed to brick and mortar clinics and at a professional meeting in North Mississippi.

Methods of Data Analysis

Data was compiled following the closing of the survey. Microsoft Excel was utilized to compile the data obtained, and data was reported using descriptive statistics and percentages. For professional analysis, the data was sent to a statistician for review and reporting and will be presented based on professional expertise.

CHAPTER IV

Results

Depression in the elderly is an increasingly under diagnosed and undertreated issue. The research study investigated one possible contributor: failure to screen geriatric patients for depression. Identification of existing barriers included lack of reimbursement, perceived unnecessity, patients declination, or time constraints for providers. Obtaining information through research can lead to formulation of plans to be put in place, which should result in a decrease in the lack of screening in the future. The information was obtained through anonymous surveys to providers, including physicians, physician assistants, and nurse practitioners in multiple anonymous locations throughout the United States. The surveys were distributed in several ways, from which the participants' chose the preferred method of completion. Upon obtaining 100 surveys, the researchers closed the period for data collection, compiled the data onto a spreadsheet, and submitted the data to a statistician for analysis. The results were obtained and reviewed by the researchers to form opinions and grounds for future research and plans, including the possibility of practice change recommendations. The remainder of this chapter discusses the participants' demographic factors and the statistical findings of the research tool.

Profile of Study Participants

Of the 100 surveys collected, 99 were included in data analysis. One survey was disregarded because the respondent identified as a student nurse practitioner, which did not fit the requirement as a primary healthcare provider. Of the respondents, 97% identified as a nurse practitioner and 3% identified as a physician (MD). No respondents identified as DO physicians or physician assistants.

The respondents had a wide array of experience. Thirty-six percent of respondents had zero to five years of experience as a healthcare provider. Twenty-one percent had six to ten years of experience. Fifteen percent had 11 to 15 years of experience. Seven percent had 16 to 20 years of experience, and 20% had 21 or more years of experience.

Statistical Results

Upon analysis of the statistical data, the research questions were reviewed and are as follows:

1) Do primary care providers perform depression screening on geriatric patients?

2) What barriers exist to performing depression screening on geriatric patients?

3) If geriatric patients are identified as at risk for depression, what interventions are being utilized by primary care providers to address this issue?

Table 1

Current Practices for Screening Geriatric Patients for Depression

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I do not screen geriatric patients for depression	10	10.1	10.1	10.1
	I screen geriatric patients for depression only when the patient or family reports a problem.	17	17.2	17.2	27.3
	I screen geriatric patients for depression only I notice a clinical indicator of depression	30	30.3	30.3	57.6
	I screen every geriatric patient for depression	40	40.4	40.4	98.0

		Frequency	Percent	Valid Percent	Cumulative Percent
	Selected multiple responses or wrote in response	2	2.0	2.0	100.0
	Total	99	100.0	100.0	

As evidenced in Table 1, the data indicated 40% of surveyed providers reported screening every geriatric patient for depression, and 30% reported screening only when there were clinical indicators of depression presenting. Seventeen percent reported screening when the patient or family reported a problem pertaining to depressed symptoms being experienced, 10% reported not screening patients for geriatric depression at all, and the remaining 2% failed to answer the question appropriately.

Table 2

Barriers to Performing a Depression Screening

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	did not answer the question	6	6.1	6.1	6.1
	time constraint	29	29.3	29.3	35.4
	not necessary	12	12.1	12.1	47.5
	not reimbursed	1	1.0	1.0	48.5
	patient declines screening	15	15.2	15.2	63.6
	we screen everyone for depression	36	36.4	36.4	100.0
	Total	99	100.0	100.0	

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Table two assisted the researchers in discovering barriers to screening every geriatric patient for depression and included time constraints, patient declination, screening being deemed unnecessary, or lack of reimbursement. The data has an inconsistency because 6% of respondents failed to answer appropriately. In Table 1, respondents may have reported screening every geriatric patient, but upon moving forward through the survey, only 93 answered correctly in question two to support the answer in question one. Forty percent of respondents in question one and only 36% of providers in question two reported screening every geriatric patient for depression. Despite the inconsistencies seen, researchers were able to identify a time constraint as the most prevalent issue in screening, which affected 29% of providers who correctly answered the question. Approximately one-third of providers admitted to not having time to screen patients for depression. The determination is alarming because of the convenience of time and cost-efficient tools that can be completed by the patient. The barrier of 15% of providers, the patient declining being screened, is the patient's right and cannot be avoided. The researchers felt as though this is both an unavoidable and legitimate barrier. Twelve percent of providers felt the screening was unnecessary, and the researchers were unsure of the criteria utilized by the provider to deem screening unnecessary.

Table 3
What Interventions Do You Implement or Order

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	N/A, I do not screen	7	7.1	7.1	7.1
	medicine	18	18.2	18.2	25.3
	psychiatrist	7	7.1	7.1	32.3

	Frequency	Percent	Valid Percent	Cumulative Percent
therapist	5	5.1	5.1	37.4
all of the above	20	20.2	20.2	57.6
none of the above	3	3.0	3.0	60.6
medicine and psychiatrist	18	18.2	18.2	78.8
psychiatrist and therapist	6	6.1	6.1	84.8
medicine and therapist	10	10.1	10.1	94.9
multiple choices and/or write in	5	5.1	5.1	100.0
Total	99	100.0	100.0	

The third question researchers sought to answer inquired as to what interventions were implemented by providers upon the patients having a score indicative of depression. The options available were medication(s), psychiatry, therapy, or multiple combinations of the three options. As shown in Table 3, of the 99 surveys analyzed, 20% of providers implemented medication, psychiatry, and therapy. Eighteen percent utilized only medication, 18% reported using medication along with psychiatry, and 10% utilized medication and therapy. Seven percent referred to psychiatry alone, while 5% referred to therapy alone. Six percent utilized therapy and psychiatry. Three percent reported utilization of none of the methods, and 5% of respondents wrote in answers.

Table 4

What Screening Tool is Used

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	N/A, I do not screen	7	7.1	7.1	7.1
	PHQ2	11	11.1	11.1	18.2
	PHQ9	43	43.4	43.4	61.6
	GDS	5	5.1	5.1	66.7
	BDI	2	2.0	2.0	68.7
	MDI	2	2.0	2.0	70.7
	SDS	1	1.0	1.0	71.7
	I do not use a screening tool	21	21.2	21.2	92.9
	selected multiple answers or wrote in answer	7	7.1	7.1	100.0
	Total	99	100.0	100.0	

The researchers also asked respondents what tools were most frequently used to screen geriatric patients. The PHQ-9 was the most popular screening tool according to 43% of respondents. The PHQ-2 was used by 11%, and the geriatric depression scale was used by 5%. The remaining screenings were the Major Depression Inventory (MDI), the Beck Depression Inventory (BDI), and the Self-rating Depression Scale (SDS) which were used by 2%, 2%, and 1%, respectively. Of the 99 respondents, 21% reported screening without use of a screening tool, seven reported not screening, and the remaining seven were not categorized due to incorrectly answering the question.

CHAPTER V

Implications

Introduction

Depression in the elderly is not a normal part of aging, yet depression continues to occur and is often overlooked and undertreated. Failure to screen for geriatric depression in primary care results in patients not receiving optimal standard of care and treatment. For better health and quality of life, adequate and comprehensive evaluation and treatment of late-life depression is essential. Researchers believed providers were not following the guidelines set forth by the United States Preventative Services Task Force (USPSTF) to regularly screen all geriatric patients. The guidelines state the USPSTF recommends screening for depression in the general adult population, including pregnant and postpartum women, and specific systems should be put in place to ensure accurate diagnosis, effective treatment, and continual follow-up (Siu & USPSTF, 2016).

According to guidelines, older adults with risk factors for depression include experiencing disability and poor health status related to medical illness, complicated grief, chronic sleep disturbance, loneliness, a history of depression, and positive findings on a commonly used depression screening instrument. All positive screening results should lead to additional work up of depression and comorbid psychological problems such as anxiety, panic attacks, substance abuse, alternate diagnoses, and medical conditions (Siu & USPSTF, 2016). Review of American Psychiatric Association, GMHF, National Institute of Mental Health, and the CDC guidelines do not recommend any specific depression scale to assess for depression, but do encourage regular generalized screening.

Treatment recommendations for geriatric depression vary slightly between various mental health, gerontological, and healthcare organizations; however, all indicate the importance

of both pharmacological and psychotherapeutic interventions. The USPSTF guidelines discuss that effective treatment of depression in adults generally includes antidepressants and/or psychotherapy (Sui & USPSTF, 2016). This research study investigated one possible causative factor of ineffective treatment as failure to screen in the first place. The most common examples of screening tools utilized included the PHQ-2, PHQ-9, and the Geriatric Depression Scale (GDS), which has been tested and used extensively with the older population. The GDS is a brief, 30-item questionnaire in which participants are asked to respond by answering yes or no in reference to how respondents felt over the past week. There has also been a short form developed based from the 30 item GDS, but with only 15 questions. Points are given depending on positive or negative scores. Patients are ranked based on a scoring system as normal, mildly depressed, moderately depressed, or severely depressed (Greenberg, 2019). Another screening tool, the BDI (Beck Depression Inventory), was designed to detect the presence of depression in adolescents and adults, as well as measure the characteristic attitudes and symptoms of depression. The Major Depression Inventory (MDI) is a self-rating scale used for the diagnosis or measurement of depression, according to both DSM-IV major depression and ICD-10 moderate to severe depression criteria. The symptoms questioned should have been present nearly every day during the past two weeks. Upon screening patients, providers could discover indicators of depression and intervene appropriately.

Since geriatric depression is still prevalent, evidently there was a lack of screening due to barriers. This led the researchers to seek identification of existing barriers, such as lack of reimbursement, screening being considered unnecessary, declination of screening, or constrained time. A quantitative, descriptive survey design was utilized, which included questions regarding demographics, healthcare role, years of experience, self-reported utilization of screening tools,

and barriers which withheld screening. The researchers suspected that identification of barriers would lead to the formulation of plans to put in place to avoid or eradicate barriers, resulting in a decrease in the lack of screening, and ultimately an increase in the recognition and treatment of geriatric depression.

Summary and Discussion of the Findings

This research addressed two potential variables in screening practices:

1) What are the current practices for screening geriatric patients for depression, and

2) Based on personal current practice in screening geriatric patients for depression, what screening tool is used most frequently?

When reviewing the current practices for screening geriatric patients, only 40% of providers screened every patient for depression, and 43% of respondents identified using the PHQ-9 screening tool. The research also addressed treatment practices following positive depression screenings. Three modalities were used by the majority of respondents that included medication, psychiatric treatment, therapy referrals, or a combination of the three. The findings from Table 4 indicate 18.2% of those surveyed preferred to use medication alone. Based on the findings of this study, a streamlined course of treatment is not standard and is highly individualized. Further studies would be helpful in determining what limitations providers and patients are facing. Limitations the individual may face could include, but are not limited to, inadequate insurance coverage, transportation, or stigma associated with psychiatric evaluation and treatment.

Limitations of the Study

Limitations of this study included a time constraint, as the researchers had less than one year to complete this study from start to finish, which led to a secondary limitation of a small

and localized demographic group of providers. The participants included 100 respondents, the majority of which were located at a nurse practitioner conference, where only 93% correctly answered the survey. The presumption by the researchers was that participants either did not understand the survey questions correctly or did not take the time to ensure proper participation. Another limitation was researchers failed to ask who actually screens the patients, the nurse or the provider. This is a limitation of accurate data results because who performs the screening and who makes the decision to do so is unknown. The researchers also failed to ask questions related to the providers' knowledge of current guidelines. Some providers are possibly unaware of guidelines, and others may be highly educated on depression guidelines, but this differential was not presented based on failure to ask this question on the survey.

Conclusions

Based on the final results, only 40% of the providers surveyed reported screening every geriatric patient for depression, while the other 60% did not screen every geriatric patient for depression. Based on the findings, the majority of providers do not screen because of what the provider considers a time restraint. The remaining providers only screen if a family member verbalizes a need or if the provider themselves notice an indicator of potential depression in the geriatric patient. After reviewing the results, researchers infer that many geriatric patients go unnoticed when they have depression, especially if they do not exhibit symptoms during the short time in the providers' presence. If every clinic screened all geriatric patients, the geriatric's quality of life could be improved because depression could be diagnosed and treated. Similarly no standardized treatment method was widely implemented. Researchers think providers would benefit from more distinguishable guidelines and recommendations for treatment of geraitric depression.

Implications

  Multiple implications were drawn from this research into geriatric depression screening. The first implication was primary care providers should screen for geriatric depression in every geriatric patient who gives consent to be screened. Depression affects a large portion of the geriatric population, and is the responsibility of the healthcare provider to assess for and treat depression accordingly. The research study showed that while many primary care providers screened patients for depression, some providers did not.

  In addition, providers need clearer treatment guidelines to effectively treat geriatric depression. Optimal treatment goals could involve utilization of medicine along with psychiatric treatment or therapy referral. Educating providers regarding available screening tools and methods would increase the provider's knowledge base for identifying geriatric depression. This improvement would increase the provider's likelihood of compliance and standard of care.

Recommendations

  Based on the findings of this research project, the student researchers had recommendations for research on the topic of geriatric depression screening. Further research could be conducted on how providers could better manage the time of the patients' visit to allot appropriate time to screen for depression since time constraint was the biggest reason providers did not screen for geriatric depression. In addition, the student researchers recommend further research on how to screen for depression more efficiently in the geriatric population. The researchers believe multiple options available to providers for screening would not affect the provider's ability to perform timely visits. For example, a type-written screening tool could be provided to patients upon arriving at the clinic, along with data update forms or other pertinent paperwork. The same tool could easily be administered verbally or on a type-written form

during nurse intake while vital signs are obtained. Screening tools could also be easily added to electronic health record systems to prompt providers to perform the screening. Many clinics are using newer technologies, such as iPads or smart devices, upon arrival to obtain a history, a review of systems, and perform screenings. Many geriatric patients are not as familiar with newer technologies, and this could potentially slow screening processes. Further research could be beneficial in determining patient understanding and use of various screening technologies. Lastly, researchers also recommend investigating why many geriatric patients decline to be screened for depression.

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IRB letter goes here

Geriatric Depression Screening Survey

This survey is only applicable to primary care providers that routinely see patients age 65 or older. If you are not a primary care provider, or do not see patients age 65 or older, please do not complete this survey. If you agree to take this survey, your answers serve as your consent. Please circle the letter of the answer that most applies to you and/or your practice. Thank you in advance for your time and honesty.

Questions: for the purpose of this study, a geriatric patient is defined as a person age 65 years or older.

1.Please select your role as a healthcare provider:
    a. MD
    b. DO
    c. NP
    d. PA

2. How many years have you have practiced as a primary care provider?
    a. 0-5
    b. 6-10
    c. 11-15
    d. 16-20
    e. 21+

3. What are your current practices for screening geriatric patients for depression?
    a. I do not screen geriatrics for depression.
    b. I screen:
        ___geriatric patients for depression only when the patient or family reports a problem.
        ___geriatric patients for depression only when I notice a clinical indicator of depression.
        ___every geriatric patient for depression.
    **With answer A, please skip to number 6.
    **With answer B, please continue to number 4.

4. Based on your personal current practice in screening geriatric patients for depression, what screening tool is used most frequently?

a. Patient Health Questionnaire-2 (PHQ-2)
b. Patient Health Questionnaire-9 (PHQ-9)
c. Geriatric Depression Scale (GDS)
d. Beck Depression Inventory (BDI)
e. Center for Epidemiological Scale for Depression (CES-D)
f. Major Depression Inventory (MDI)
g. Zung Depression Scale (SDS)
h. I do not use any tool.

5. Based on your personal current practice, if a screening tool indicates depression or at risk for depression to develop, what interventions do you implement or order?
   a. I prescribe a medication.
   b. I refer or recommend the patient see a psychiatrist.
   c. I refer or recommend the patient see a therapist.
   d. All of the above.
   e. None of the above.
   f. A and B only
   g. B and C only
   h. A and C only

6. Based on your current clinical practice, if you are not currently, or do not routinely screen all geriatric patients for depression, what barriers are there to performing a depression screening?
   a. We do not screen every geriatric patient for depression because:
      ___of time constraints.
      ___ it is not necessary.
      ___we are not reimbursed for it.
      ___they don't want to be screened/decline screening when offered.
   b. We screen every geriatric patient for depression