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Assessing suicide risk in older adults

Abstract: Suicide in older adults is continuing to rise and, as the older population increases, so will the rate of suicide. By learning more about the risk factors, assessment areas to explore, and ways to improve treatment, primary care providers can help decrease the incidence of suicidal behaviors in this population.

By Barbara Suzy Diggle-Fox, PhD, GNP, ANP-BC

It is projected that by 2025 there will be 1.2 billion individuals who are age 60 and older.[1] Suicide is a major health issue for older adults in the United States.[2] The rate of suicides for all ages is approximately 1 in 12 and for older adults it is 1 in 4.[3] It is estimated that a geriatric individual will commit suicide every 90 minutes.[2] The CDC has found that the suicide rate for males age 75 and older was 36 per 100,000 in 2014; overall, for both women and men age 75 and older, it was 16.3 per 100,000.[2]

In general, older adults have a higher average of suicide completion than any other age range; it is estimated that 25% of older adults worldwide who attempt suicide succeed (both male and female).[3] The older generation has a history of fewer suicide attempts but more completed suicides.[4] Rates of suicide in older adults may be underreported because of the negative stigma of dying from their own actions. For example, if an older adult dies from an overdose, the case may be documented as an accident.[5] If a suicide note is not found, sometimes it is not clear whether the death was intentional or not. It may be difficult to determine the cause.

There are two major barriers to decreasing suicide: the reluctance to admit there is a problem and the accessibility of mental healthcare.[6,7] Another factor contributing to the problem is that many older adults do not want to show psychological weakness during visits with their primary care provider (PCP).[8] Therefore, the decrease in negative attitudes by older adults relating to mental health issues could lead to increased assistance from healthcare providers, family, friends, and society.

PCPs are in an ideal position to screen for at-risk individuals. PCPs are able to identify depression in older adults or other suicidal risk factors and offer (as well as

Keywords: depression, geriatrics, mental health, primary care providers, suicide, suicide prevention in older adults

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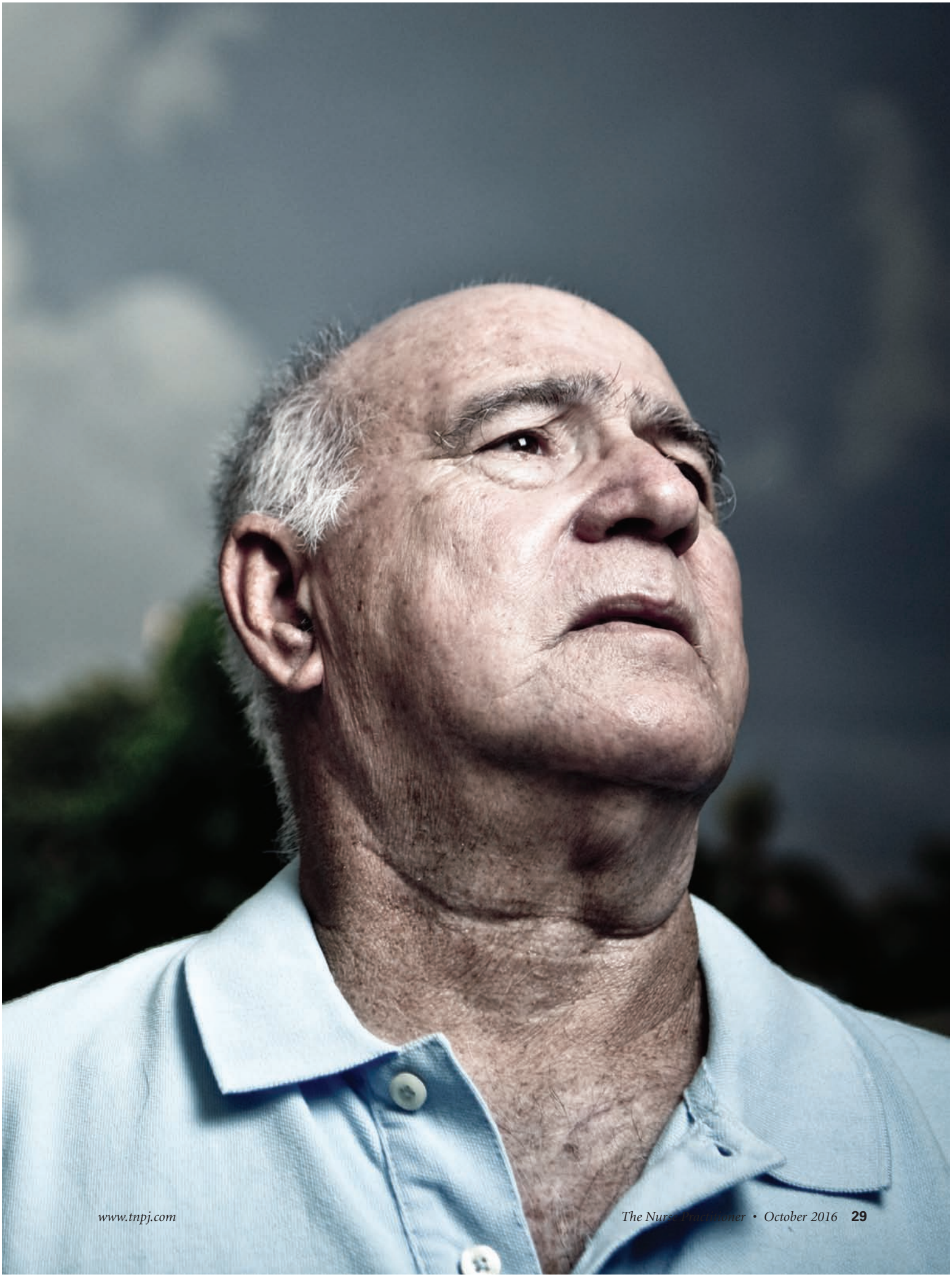

encourage) treatment when indicated. However, some PCPs may not feel competent in screening for suicide risk.[9,10]

Most individuals who are suicidal visit their PCP shortly before they attempt suicide, any time from 1 week to 6 months prior to their act of suicide. Most often, such visits are within 3 months.[11,12] Nonetheless, many patients do not receive any care relating to mental health issues during this visit.[13] Patients may prefer to discuss their suicide ideation with their significant others rather than with their PCPs.[4]

There is a lack of knowledge relating to geriatric suicide.[14] In addition, many suicide research studies have excluded older populations.[15] Consequently, there has not been as much progress in suicide prevention in older adults as opposed to the positive progress that has been made in diseases such as cancer, heart disease, and stroke.[15]

Known risk factors

Mental health disorders, such as depression, schizophrenic-related disorders, bipolar personality disorder, anxiety disorders, obsessive-compulsive disorder, and psychotic disorders, are all risk factors.[14] It is estimated that over 6 million individuals in the United States age 65 and over have been diagnosed with depression.[15] By 2020, depression in older adults may be the second most common etiology of death or disability, following cardiovascular diseases.[1]

However, it is important to note that many older adults who committed or attempted suicide were not actually diagnosed as having a mental health illness.[14,15] Signs and symptoms of depression in older adults may not be identified because patients may not exhibit them.[15,16] Although some depressive symptoms may be present, they do not reach the threshold for diagnosis and therefore, are not treated; this is known as subclinical or subsyndromal depression.[15,16]

In addition, older adults may have signs and symptoms suggesting depression that may actually be from comorbid conditions such as hypothyroidism. Moreover, the older population may have some of the common signs and symptoms of depression, such as insomnia, weight increase or decrease, and fatigue; however, these signs and symptoms may be associated with their comorbidities such as heart, lung, kidney diseases, and diabetes mellitus and may not be symptoms of depression.[17,18]

Many older adults are prescribed hypnotics and/or sedatives, particularly if they have difficulty with sleeping, anxiety, or depression.[19] These medications are frequently found to be a method for suicide and therefore, constitute a risk factor. Neurotransmitters, such as norepinephrine and serotonin, which are in the area of the brain where antidepressant medications work, are also associated with pain. Lower levels of norepinephrine and serotonin can lead to increased signs and symptoms of depression and increased perception of pain, which may lead to an increased risk of suicide.[18]

Losses

Having control over a part of one's environment, body, and situation is essential for most individuals' quality of life, including the geriatric population.[20] Many risk factors for suicide in older adults are related to losses in areas of sense perception, such as hearing and vision. Often, such losses are associated with a decrease in independence. For example, the individual may have to surrender his or her driver's license. Society tends to associate an individual's value with the ability to be productive, and these losses can lead to decreased self-esteem.[20]

In addition, all older adults gradually lose friends, family members, and significant others. They often lose their confidante or life partner through divorce, death, or separation in living arrangements.[21] Consequently, many older adults must make changes in their living arrangements and leave their communities where they have social connections, such as a religious organization. Others are isolated or home bound, and they may not have or perceive to not have significant social connections.[22,23]

Physical ailments

Many physical ailments have a connection to suicide within older adults (for example, chronic pain or newly diagnosed severe medical illnesses, including lung and kidney diseases). Patients with cancer appear to be more at risk for suicide in the first year of their diagnosis, and patients on dialysis are more at risk in the first 3 months.[15,24] The period of adjustment with a new situation makes the individual vulnerable for possible suicide.

Suicidal ideation

It is estimated that 6% to 20% of older adults with known suicidal ideation actually attempt suicide.[21] In addition, there is an increase of suicidal ideation when the individual has low self-esteem, a troubled marriage, or difficulty accessing healthcare.[25] Suicidal ideation in older adults is not uncommon because the individual may be coming to terms with the end of his or her life.[3,26]

Dementia, cognitive impairments, and suicide

It was been found that, early in the diagnosis and stages of dementia, there tends to be an increase in suicidal behaviors.[26] This may occur secondary to the individual's awareness of the dementia diagnosis, not wanting to lose independence, and fearing the possibility of being a burden. Later, when dementia progresses, the risk of suicide decreases.[26] Therefore, it is important to support, counsel,

educate, and screen patients and their families with an early dementia diagnosis.

Changes with aging, such as vascular and degenerative changes, may increase the risk of cognitive decline.[27] Patients who have attempted suicide and have a diagnosis of depression have demonstrated more learning and decision-making disabilities as well as decreased executive function than patients who were depressed but not suicidal.[27]

Religious, cultural, and social aspects

Cultural aspects are always important to consider when assessing for possible suicidal behavior. A study involving Irish older adults considered an individual's deliberate self-harm, using examples such as overdosing and cutting, which seemed to increase with age.[28] However, in Ireland, the rate of suicide in older adults is below the national average.[28] In China, older adults have higher status, yet China also has one of the highest rates of geriatric suicide.[29]

One reason for the high suicide rate in older adults in China is a low birth rate and children move away from parents; therefore, these older adults have less support from their children.[29] In some cultures, people strongly believe that suicide may put shame on significant others and, as a result, suicide is not seen as an option.[29]

Older adults who are affiliated with a religion express more reason to live.[30] Both religion and socialization are measures that increase one's resilience, perhaps by acting as a buffer to suicide.[30] Some studies have observed a decrease in the rate of suicide in religious individuals.[31] These data indicate that suicide assessment should include the individuals' religious beliefs and their connection to their religious institution, congregation, and fellowship.

When individuals are being screened for support, providers must inquire whether people in their lives are getting along, are physically nearby, and are supportive. Having a partner, children, and friends does not necessarily mean the individual experiences support. The risk of depression is increased or depression is exacerbated if individuals do not feel they have social connections. Overall, family support is vital in decreasing the incidence of suicide.[12,25,31]

Gender

Historically, men tend to hide their emotions, as it is not considered masculine to express one's feelings.[5] It has also been found that women are more likely to seek help. Men who are suicidal often tend to lose interest in what they like to do or "feel down." Moreover, men with visual, neurologic, or malignant impairments have an increased risk of suicidal behaviors. They frequently have more relationship problems or somatic symptoms, such as aches and pains.[32]

Risk factors for suicide in older adults[15,24,29]

Demographic factors
- Male gender
- Increased age
- Change in dwelling or daily routine
- Isolated or homebound

Mental health history
- History of being abused
- History of self-harm
- Anger, violence, aggression, or revenge
- Prior suicide attempts
- Current or past history of mental health treatment

Substance abuse
- Drugs
- Alcohol
- Cigarettes

Somatic disease
- Acquiring a new diagnosis
- Incontinence
- Seizure disorder
- Respiratory disease

Problem solving
- Decrease in decision-making capability
- Lack of motivation
- Decrease in executive functioning
- Increased impulsivity

Recent changes
- Body image
- Appetite (decrease or increase)
- Independence: decrease in activities of daily living, financial changes, loss of driver's license or ability to drive
- Roles: caregiver, retired, veteran—particularly if served in combat
- Lack of interest in personal care

Feelings
- Loneliness
- Hopelessness, helplessness, powerlessness

Alterations
- Sleeping (decrease or increase)
- Concentration
- Communication difficulties

Men over age 50 are generally more deliberate, use more dangerous and lethal methods, have an increased frequency of suicide, and are quick with their decision to commit suicide.[33] Older women tend to become more deliberate with their suicidal behaviors when they feel they are losing their independence and believe they are or will become a burden to others.[33] More preventive services are geared toward women than for men, even though more men attempt and complete suicide.[14,34]

Older White males have the highest rate of suicide.[35] In 2005, 85% of older adults who died by suicide were men.[36] It is vital that preventive programs work harder to focus their measures on men as well as women (see *Risk factors for suicide in older adults*).

Screening

Depression may be difficult to assess in older adults given time constraints, comorbidities, long histories, and potential impaired communication. Patients may also have other issues, such as medication adverse reactions and multiple somatic complaints. The patient's medications may cause signs and symptoms of depression (such as calcium channel blockers, anti-Parkinson agents, benzodiazepines, beta-blockers, hypnotic agents, certain cancer medications, interferon, corticosteroids, hormones, respiratory or gastrointestinal medications, and digoxin).[37,38]

PCPs should assess patients for physical illnesses, such as hypothyroidism; patients with this disorder may also exhibit signs and symptoms of depression. Hypothyroidism often causes a feeling of weakness and lack of motivation similar to depression.[39]

Focused screening

PCPs must ask the patient if he or she is suicidal, as older adults frequently do not bring up the topic. However, many patients will be grateful that someone noticed them and that they are not alone. Asking about suicide does not place this idea in one's head.[40]

It has been suggested that every clinical evaluation assess for suicide ideation.[41] The Patient Health Questionnaire (PHQ-2) is a two-question depression screen. If this is found to be positive, the PHQ-9 can be added.[42] It has also been recommended that the following questions from the Columbia Suicide Severity Rating Scale be asked:

- Are you feeling hopeless about the present or future? If yes ask:
- Have you had thoughts about taking your life? If yes ask:
- When did you have these thoughts and do you have a plan to take your life?
- Have you ever had a suicide attempt?[4]

The patient who has any of the following warning signs of impending suicide should not be left alone: change in how they speak of death; alterations in patterns of daily activities; mood swings; or differences in usual medication, alcohol, or other recreational drug usage. The latter may be indicative of hoarding medication to collect enough for an overdose.

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When an individual is considered at high risk for suicide, thorough screening is necessary by asking specific questions, such as frequency of suicidal thoughts; plan; history of suicidal attempts; number of times attempted; history of hurting themselves without suicide attempts; and whether any previous attempts made use of weapons or supplies, such as ropes or medications. Patients at high risk for suicide need immediate intervention, which may include admission to a hospital or mental health facility. It is also recommended that the individual discuss and sign a contract with a plan to not act out suicidal behaviors if he or she has such suicidal feelings again. This will include names and numbers of individuals to call when he or she has suicidal feelings.

In order to be more thorough with the screening process, all providers must be aware of the various methods that older adults have been found to utilize during their suicide attempts. The following are common methods of suicide: self-shooting, domestic gas, hanging, suffocation, strangulation, cutting, jumping, poisoning, and overdose.[5,29]

Reducing risk

The PCP should collaborate with mental health professionals to facilitate counseling, medication, and other supportive services to reduce suicide risk and incidence. The primary care practice should use a computer to set up reminders to routinely assess suicidal behaviors or risks via call, text, or e-mail for follow-up. It is also important to follow up with patients who do not keep appointments. Approximately 20% to 25% of the very old (85 and older) do not attend follow-up appointments.[21]

It is also important that an assigned individual from the patients' PCP's office call, visit, and/or e-mail high-risk individuals during holidays or special anniversary dates.[3,23] ED visits increase during the above-mentioned vulnerable times, and individuals often describe feelings of increased stress, especially with alcohol intake.[43,44] In addition, patients who are considered high risk should have their records flagged to reassess for suicide risk during each visit or possibly during home visits.

Office waiting rooms could display a video concerning the incidence and reality of depression, signs and symptoms, and how patients may receive help. One study that assessed older individuals at risk for suicide who had been given care managers, with or without home visits along with their usual care, concluded that they had fewer signs and symptoms of depression and suicidal ideation as well as improved quality of life.[12]

Prevention

Suicidal prevention efforts often lack ways to increase resilience and positive aging.[14] PCPs should explore ways to increase resilience in individuals, such as discussing goal planning and the ability to change, grow, and compromise, and to be patient and positive. Individuals who exhibit resilience often express that suicide does not solve any problems and thus, it is not an option.[45] Other important aspects include perceiving that one can manage obstacles and a belief that life has meaning.[46]

It is vital that all patients, providers, and significant others learn that depression is treatable. Family members and healthcare providers must learn not to assume that a patient's signs and symptoms are from aging.[47] For example, feeling down and decreased memory and attention often are signs that many believe to be a normal process of "getting old."

Antidepressants and/or psychotherapy have been found to significantly decrease suicidal ideation.[48] An important finding was that even though the oldest old age group has the highest numbers of suicide, they have the least amount of known treatment with antidepressants.[15] Medications can help treat older adults with depression.[49] Antidepressants, such as selective serotonin reuptake inhibitors, are generally preferred because they have fewer adverse reactions compared with other antidepressants.[16,49-51]

It must be emphasized that older adults have an increased risk of adverse reactions from all medications secondary to physiological changes that occur with aging (for example, decreased kidney clearance and liver metabolism).[52] Close monitoring for 2 months after starting on any new antidepressant drug is essential, even if the patient has been on other antidepressants in the past. The first 2 months of antidepressant treatment is a time when patients are found to be vulnerable and at risk for suicide.[53] Increased suicide attempts have occurred in the first 2 months after initiating an antidepressant.[53]

Interpersonal psychotherapy is a treatment that focuses on relationship discord by focusing on increasing communication and decreasing related intellectual confusion; it helps increase the odds of having a more supportive relationship.[33] It has been found that assisting patients with exploring what brings them joy, happiness, and meaning in life and helping them experience more joy and happiness have been beneficial.[30] Individuals who are active and flexible tend to be happier and experience less stress.[30] When there is a need to adapt and change, the more adaptable one is, the more one can adjust, accommodate, and transition from one role to another and manage challenges.[20]

Life review therapy may help the patient find meaning and inner peace by reviewing an individual's positive and negative life experiences by discussing and exploring them.[24]

Treatments for depression[15,16,24]

Healthy lifestyle
- Well-balanced diet
- Adequate hydration
- Exercise
- Adequate sleep
- Decrease or quit alcohol, smoking, and recreational drugs

Therapies
- Psychotherapy
- Cognitive bibliotherapy
- Antidepressant medication
- Problem solving
- Light treatment
- Pet therapy
- Addiction treatment

Social, physical, and family support
- Adaptive equipment, such as canes, walkers, visual aides, grab bars, adequate lighting, large button smartphones and computers
- Resources to decrease isolation, such as information regarding activities that are in the individual's immediate area

Cognitive bibliotherapy, using either computer programs or documented material, can assist an individual with altering depressive thoughts.[24]

Older adults who are at risk for suicide should have their environment assessed by one of the healthcare team members for possible suicidal weapons, medications, belts, knives, or anything else the patient may use to attempt suicide. If guns are available, patients and their significant others must be educated regarding gun safety (for example, the family can remove the guns or lock them away).

It is important to explore ways to increase the individual's access or knowledge of equipment that may improve safety and independence, such as computers, audiobooks, grab bars, hearing aids, and other assistive devices. Fundamentally, it is vital to assist older adults with transitions, for example, prior to moving or initiating dialysis or any other life-changing event, to introduce the patient to the specifics and allow the patient to become familiar with the new event or environment (see *Treatments for depression*).

It is important that all PCPs know what suicide prevention support services/resources are in their area to offer their patients and their significant others (see *Suicide prevention resources*).

Implications for practice

The U.S. Census Bureau predicts that the number of individuals age 65 and older will increase by 45 million by 2050.[54] In addition, it is predicted that the number of

Suicide prevention resources

American Association of Suicidology
www.suicidology.org
CDC
www.cdc.gov
National Action Alliance for Suicide Prevention
www.actionallianceforsuicideprevention.org
National Institute of Mental Health
www.nimh.nih.gov
National Suicide Prevention Lifeline
www.suicidepreventionlifeline.org
1-800-273-TALK (8255)
Suicide Awareness Voices of Education
www.save.org
Suicide Prevention Resource Center
www.sprc.org
1-800-273-8255

geriatric internists and psychiatrists will either decrease or be maintained.[52] Suicide in older adults will only continue to rise if society and the healthcare system do not take action. More research is needed in this area.[14,15,55]

There is a gap in the literature regarding why some individuals attempt suicide even when they do not have a diagnosis of depression, and why others do not attempt suicide, even though they may have multiple difficulties or discomforts and possibly a diagnosis of depression. Specific assessment tools are needed to evaluate when suicidal ideation requires immediate attention, as older adults have frequent suicidal ideation.[14,15] Moreover, evaluative tools are needed in primary care, specifically for older adults.[14,15] Practice protocols should incorporate frequent, continual assessment for suicide risk as a routine part of each physical exam and with each patient visit.

To prevent suicide attempts and increase screening and treatment, NPs should increase their knowledge, comfort, and skills regarding geriatrics and suicide risk factors. It is important that NPs know the resources for support in their communities. NPs need to become more involved with suicide research and policy in order to be advocates for their patients and help them receive competent care for their suicidal feelings. Lastly, NPs must, at every visit, talk to older patients and assess if they have suicidal risk factors in addition to letting them know that they are cared for and resources are available to help them.

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Barbara Suzy Diggle-Fox is an assistant professor in the Nursing Department at the New York Institute of Technology, Old Westbury, N.Y.

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Assessing suicide risk in older adults

TEST INSTRUCTIONS

- To take the test online, go to our secure website at **www.nursingcenter.com/ce/NP**.
- On the print form, record your answers in the test answer section of the CE enrollment form on page 36. Each question has only one correct answer. You may make copies of these forms.
- Complete the registration information and course evaluation. Mail the completed form and registration fee of $21.95 to: Lippincott Williams & Wilkins, CE Group, 74 Brick Blvd., Bldg. 4, Suite 206, Brick, NJ 08723. We will mail your certificate in 4 to 6 weeks. For faster service, include a fax number and we will fax your certificate within 2 business days of receiving your enrollment form.
- You will receive your CE certificate of earned contact hours and an answer key to review your results. There is no minimum passing grade.
- Registration deadline is October 31, 2018

DISCOUNTS and CUSTOMER SERVICE

- Send two or more tests in any nursing journal published by Lippincott Williams & Wilkins together and deduct $0.95 from the price of each test.
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