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A Season of Self-destruction—The Current Suicide Epidemic in Older Adults

Evidence to Consider Before Writing the Prescription

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SUICIDE IN THE UNITED STATES

Suicide rates have increased significantly since 1999 in 44 states, with rates exceeding 30% in 25 states. In 2016, the United States experienced 45 000 suicides (15.6/100 000). In addition, emergency department visits for nonfatal self-harm, a major risk of suicide, have increased 42% since 2001. Suicide rates have increased for both men and women, in all racial and ethnic groups, with the largest absolute rate increase in adults aged 45 to 64 years. Almost half of the suicide deaths did not have a known mental health condition. However, these persons experienced greater relationship problems and/or loss, life stressors (civil and legal, eviction or loss of home), and recent or impending crisis. Persons with mental health conditions had similar circumstantial stressors, with nearly half receiving treatment when they died and two-thirds having a history of mental health or substance use disorders.[1]

Living location appears to also be a significant factor. For example, suicide rate for District of Columbia (2014–2016) was 6.9, compared with Montana with a 29.2 per 100 000 persons. From the National Violent Reporting Death Reporting System data for 27 states in 2015 (for groups with and without known mental health condition), male gender, white/non-Hispanic race/ethnicity, and history of military service are significant factors associated with suicide. Nearly 49% of suicides used a firearm, and for 28.9%, the method was hanging, strangulation, or suffocation. Nearly 15% used poisoning. The substance classes causing death included over-the-counter medications (34%), followed by opioids (31.4%), antidepressants (34.6%), and benzodiazepines (20.8%).[1] Suicide attempts (SAs) are particularly significant for white males (48.7/100 000), which is 4 times the nation's age-adjusted rate of 11.1 per 100 000.[2] In 2013, suicide exceeded motor vehicle accidents as the leading cause of injury death in the United States.[3]

Increasing rates are due in part to the rise in suicide by hanging/suffocation (52%) and to poisoning (19%). Suicide by hanging/suffocation increased 104% for those aged 45 to 59 years and increased steadily in all age groups except for persons older than 70 years. The largest increase in poisoning (85%) occurred in persons aged 60 to 69 years. Case fatality rates for suicide by hanging/suffocation for 2000–2010 ranged from 69% to 84%, similar to rates for suicide by a firearm.[3]

Mechanisms for asphyxiation in 16 states are also part of the National Violent Reporting Death Reporting System report. For 2005 to 2014, the rate of suicide by asphyxiation increased by 45.7%—from 2.45 to 3.57 per 100 000 persons, with 25 270 asphyxiation suicides. Most decedents were male (79.9%), white, non-Hispanic (76.8%), and 90.7% involved hanging (n = 22 931). The 3 most commonly used means for hanging were power or extension cords (n = 1834), bedding (n = 873), and animal ropes (n = 578). The most common anchor points were trees (n = 2215), beams (n = 2014), and closets (n = 209), and 75.9% occurred in a home or apartment.[4]

Responding to the increasing risk of suicide for older adults, as well as the rise in hanging/suffocation and self-poisoning, is difficult. Risk assessment tools and evidence-based interventions to prevent suicide are scarce. Limited evidence suggests the most effective depression and suicidal screening as well as prevention and therapy takes place within a primary care setting. While pharmacotherapy, psychotherapy, counseling, education, and group activities all have benefits, these benefits appear somewhat less robust compared with these interventions provided within primary care setting. A word of caution is needed here; the evidence supporting primary care screening and intervention is weak at best. Well-designed trials are needed to really evaluate effectiveness of any screening and intervention(s).[5]

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CLUES FOR RISK OF SUICIDE

Depression is often missed or underdiagnosed. When depression presents with late-in-life anxiety disorders, the risk of suicide is even greater. Other risk factors for suicide include psychiatric and neurocognitive disorders, disability, functional decline, social exclusion, bereavement, cognitive disorders, illness, and physical and emotional pain. Suicidal patients report low social support (family and friends) and lack of perceived belonging, with chronic interpersonal difficulties. Add to these risks the older person's attenuated responses to *all* classes of antidepressants related to physiological changes associated with advancing age.[2]

The older patient reporting that he/she is thinking about death requires further discussion and evaluation. Assess whether these thoughts are normative reflections related to aging or a *passive death wish* or represent a *serious active intention* to commit suicide. Normative reflections do not include the belief that one would be better off dead. For persons with passive ideation, they may believe they would be better off dead, but have *no plans* to harm self.[6,7]

While depression may be the greatest risk for suicide in older adults, depression is not required for suicidal ideation. Factors associated with suicidal ideation include loss of a spouse and beginning complex treatment for a serious illness, unemployment related to disability, smoking, living alone, limited social contacts, not practicing a religion, and Veteran status. All of these elements should be assessed for carefully as part of screening for depression and/or suicidal ideation.[6] A final warning. Compared with young persons, elderly express suicidal ideation much less. Research is so needed to uncover all the barriers that prevent expression of suicidal intent in the elderly.[5]

PRACTICAL RESPONSES TO RISKS OF SUICIDE

Individuals who reveal a passive suicidal ideation require further evaluation within a week to further assess the presence of depression and other psychiatric disorders. When an antidepressant has been initiated or dosage was changed, patients should be seen more frequently by the primary care clinician, with suicide risk assessed at each visit. Any patient who describes a specific plan and/or desire for self-harm requires immediate emergency room psychiatric evaluation and possible inpatient hospitalization. These patients should be referred to a mental health specialist for treatment.[7]

And what about prescribing? In a cohort database study of 238 963 patients aged 20 to 64 years with a first diagnosis of depression, outcomes related to pharmacological therapy were examined. Outcomes included falls, fractures, upper gastrointestinal bleeds, traffic accidents, adverse drug reactions, and all-cause mortality during follow-up. Selective serotonin reuptake inhibitors had associated higher rates of fracture than tricyclic agents and related antidepressants but lower mortality and adverse drug reaction rates than the other antidepressant drug classes.[8]

Before beginning any antidepressant therapy, rule out other possible causes of depression and sadness. Hypothyroidism, anemia, and folate deficiencies are not common but can be easily tested for. Mood disorders are common in autoimmune disease, fibromyalgia, and chronic pain and respond well to antidepressant therapy. Consider also Cushing syndrome, polycystic ovaries, parkinsonism, multiple sclerosis, stroke, epilepsy, dementia, and cardiovascular disease often have associated depression. The decision to begin therapy depends on severity, chronicity, and adherence to behavioral interventions. Evaluation of drug outcomes should be over 8 to 12 weeks, with a partial response expected within 3 weeks. Patients must be closely monitored for emergence of suicidal ideation especially early in treatment.[9] Identifying risk of drug-drug interactions is also important before prescribing and during monitoring.

MOVING FORWARD

In 2015, more than 43 million Americans experienced a mental health problem, 20 million had a substance abuse disorder, and more than 8 million lived with both. These estimates are probably low, related to stigma and lack of treatment options. During the next decade, conservative estimates project more than 1.6 million deaths will occur related to drugs, alcohol, and suicide, a 60% increase compared with 2006-2015 in which 1 million persons died.[10]

Reducing supply and access to opioids, drugs, and alcohol are part of the solution to this epidemic. However, what is also needed is accessible and available crisis intervention services, sustained antibullying education in schools, resilience education across the life span, support services for veterans, and deeper integration of mental health into primary and acute care settings.[10]

In a recent study of 142 men and 99 women aged 20 to 85 years, subjects were divided into 3 groups: the medically serious suicide attempt (MSSA) group admitted to a general or psychiatric hospital for an SA, the medically nonserious suicide attempt (MNSSA) group who had made

Table 1. Statements by Patients Suggesting Significant Mental Pain[11]

Factor	Statements
Irreversibility of pain	"I feel the pain will never go away."
	"This situation will never change."
	"I will never be able to reduce my pain."
Emptiness	"I can't find meaning in my life."
	"I have no desires" or "I have no goals."
Cognitive confusion	"I can't concentrate."
	"I have difficulty in thinking."
	"I feel confused."

Table 2. National Resilience Strategy to Prevent Suicide[12]

Number	Strategy
1	Improve pain management and treatment
2	Stop opioid crisis—responsible opioid prescribing, prescriber education, safe disposal of unused drug, expansion of availability of rescue drugs. Multigenerational response to address effects of opioid crisis on children
3	Preservation of family by helping mothers achieve sobriety and reduce state custody placement
4	Prevent suicides by expansion of crisis intervention services, such as Zero Suicide Model
5	Expand provider networks with focus on the whole health of persons to provide medication-assisted treatment for mental healthcare and substance abuse disorders
6	Promote resilience in children, families, and communities
7	Begin again substance abuse and mental health education in schools

SAs warranting emergency room attention and/or hospitalization but did not meet criteria for a medically serious attempt. The third group, the psychiatric control group had no history of attempted suicide and no reported suicide intent.[11]

Findings revealed that those who attempted suicide had deeper experiences of emptiness and loss of control, compared with the psychiatric control group. The MSSA group experienced pain as more irreversible compared with the MNSSA group, which suggests that this manifestation of mental pain may be a distinguishing factor separating MSSA from MNSSA suicide risk. Investigators also found a correlation between the experience of emptiness and the medical lethality of the attempt. The extent of a person's mental pain expressed as emptiness and loss of control are powerful factors in the decision to commit suicide. Table 1 describes statements made by patients that should be taken seriously when assessing for mental pain during screening for depression and risk of suicide.[11]

A summary of evidence-based interventions to increase national resilience and reduce suicide is described in Table 2. These interventions emerged from an analysis of the Centers for Disease Control and Prevention data by The Berkeley Research Group supported by grants from the Well Being Trust and Robert Wood Johnson Foundation. The document calls for a national resilience strategy with focused approaches on prevention, early identification of risk, and evidence-based treatments to prevent suicide.[12]

Eighty-three percent of those who die by suicide were seen a healthcare provider in the year before the suicide, and only 29% were seen in outpatient behavioral health settings. The Zero Suicide Model launched by the National Action Alliance for Suicide Prevention and supported by Substance Abuse and Mental Health Services Administration is a powerful tool to identify persons at risk in primary care and behavioral healthcare. Interventions include transitioning care for at-risk persons with "warm" handoffs and supportive contacts. This framework uses evidence-based tool kits, training, and embedded workflows.[13–15]

Limited evidence suggests this model is effective. For example, at Henry Ford Hospital in Detroit, every patient, every visit, is screened using the following questions: How often have you felt down in the past 2 weeks and how often have you felt little pleasure in doing things? Persons with higher scores are further assessed for sleep disturbances, changes in appetite, and any thoughts of self-harm with assignment to appropriate care. Other services provided include drop-in group therapy, counseling on how to reduce access to lethal means, and belief that every person with history of a mental health need is at risk of suicide. Finally, medication-assisted treatments to reduce and/or prevent withdrawal and cravings and sustain recovery are supported.[16]

At the 2018 American Medical Association meeting, National Meeting, Resolution 312 was adopted. The resolution

Table 3. Web-Based Resources for Suicide Prevention, Intervention, and Support

Website	Organization	Resources
https://suicidepreventionlifeline.org/	National Suicide Prevention Lifeline	How to help someone else (https://suicidepreventionlifeline.org/help-someone-else/)
		1-800-273-8255 24 h/d; 1-800-799-4899 for deaf/hearing impaired
		Chat available
http://zerosuicide.sprc.org/	Zero Suicide in Health and Behavior Health Care	Resources, tool kits, champions
https://www.nimh.nih.gov/health/publications/suicide-faq/index.shtml	Suicide in America	Publication for practice, teaching PDF available for download; resources, evidence, contacts
https://www.americannursetoday.com/saving-lives-preventing-suicide/	American Nurse Today *Journal of the American Nurses Association*	"Saving Lives by Preventing Suicide"[19]
		Screening strategies with a variety of tools and very helpful references and links for practice

states that the American Medical Association will engage with appropriate agencies to facilitate development of research and training to address suicide risk of patients, medical students, residents, practicing physicians, and other healthcare professionals using an evidence-based multidisciplinary approach. In addition to curriculum development, Resolution 312 also encourages physicians to discuss with patients and families gun safety and reducing family member access as part of prevention strategies for alcoholism, drug abuse, and suicide.[17,18]

FINAL THOUGHTS

Suicide by hanging is nearly as lethal as a firearm, and 9 of 10 SAs using a gun result in death.[10] For now, there are no evidence-based interventions to reduce death by hanging. Suggested preventive actions in addition to screening and treatment include installing breakaway closet bars, lowering the height of anchor points in the living environment, reducing access to lethal means, and increasing knowledge of risk factors.[3,4]

Significant increases in suicide in older persons as well as increased suicide by hanging/suffocation and poisoning call for research to provide an evidence base for suicide prevention.[3] Table 3 provides valuable resources available now for practice and to support of patients and families. Included are links to the National Suicide Prevention Lifeline, The Zero Suicide in Health and Behavioral Health Care Model, and how to obtain information at the Suicide in America website for education, practice, and referral. A link is also provided to *American Nurse Today* to find nursing resources, screening tools, web links, and extensive references.[19]

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