A Practical Approach to Assessing and Mitigating Loneliness and Isolation in Older Adults

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Loneliness and social isolation are strongly associated with several adverse health outcomes in older persons including death and functional impairments. The strength of these associations has been compared with smoking. Accordingly, loneliness and isolation have significant public health implications.

Despite the adverse impacts of loneliness and social isolation on quality of life, and their strong association with health outcomes, the evaluation of loneliness and isolation have not been integrated into medical care. The risks for loneliness may be of particular concern to persons with serious illness as patients and caregivers cope with the experience of loss, loss of independence, and increasing care needs. To date, there has been no uniform way of evaluating and documenting loneliness and social isolation as a part of a review of a patient's social determinants of health.

This article provides a framework for healthcare systems, providers, and community members working with older adults to (1) understand loneliness, isolation, and its counterpart social connection; (2) describe the different ways loneliness affects health; and (3) create a framework for asking about and documenting these experiences. Finally, because the lack of studies assessing whether targeting loneliness can improve health outcomes is a major gap, we provide guidance on the future of interventions. **J Am Geriatr Soc 67:657–662, 2019.**

Key words: loneliness; isolation; older adults; serious illness

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EPIDEMIOLOGY

The prevalence of loneliness has been estimated to be 43% in community-dwelling older adults,[1] and loneliness is a significant risk factor for premature mortality and is comparable with the effects of smoking.[2] Former US surgeon general Vivek Murthy noted that there is an epidemic of loneliness[3,4] in the United States. Yet our medical communities have not placed an emphasis on recognizing loneliness and, in turn, have not provided patients with solutions to address it. But this lack of action cannot be blamed on healthcare providers alone. Although evidence of the health effects of loneliness date to the 1980s, this information only recently reached the medical literature. In 1980, the first studies started exploring the effects of loneliness on immune function and stress, premature death, and its prevalence in people with serious illness.[5–8] The validity of the Revised-UCLA loneliness scale was also established in the same year.[9] The UCLA loneliness scale has become the gold standard for measures of loneliness. Despite the breadth of evidence, this literature is difficult to disentangle because the terms *loneliness* and *isolation* are often used interchangeably, and for the provider, when reviewing the literature, it can be difficult to understand what is being measured and how to respond. Although loneliness and isolation are related experiences, each represents a different concept, and interventions may require distinctive approaches (Table 1). Loneliness is defined as the *subjective* feeling of being alone (perceived isolation). It also relates to the distress that results from discrepancies between ideal and perceived social relationships.[10] In contrast, social isolation refers to a complete or near-complete lack of contact with society, and it relates to a *quantifiable* number of relationships (actual isolation). Lastly, social connectedness refers to a multifactorial construct that represents the structural (eg, network size, marital status), functional (eg, perceived social support), and quality (eg, positive or negative) aspects of social relationships.[11] On a continuum of low to high, isolation, loneliness, and relationship strain would be examples of low social connectedness.[12]

HEALTH EFFECTS OF LONELINESS AND SOCIAL ISOLATION

Loneliness has received widespread national and international attention in the public press and in the medical

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Table 1. What you need to know

1. What Is Loneliness?[10]	-The *subjective* feeling of being alone (perceived isolation) -The distress that results from discrepancies between ideal and perceived social relationships.
2. What Is Social Isolation?	-Refers to a complete or near-complete lack of contact with society. -Relates to a *quantifiable* number of relationships (actual isolation).
3. What Is Social Connectedness?	-A multifactorial construct that represents the structural (eg, network size, marital status), functional (eg, perceived social support), and quality (eg, positive or negative) aspects of social relationships.[11] On a continuum of low to high, isolation, loneliness, and relationship strain would be examples of low social connectedness.[12]

literature. The relationship between loneliness health outcomes, particularly mortality, is as great as many traditional medical risk factors.[11,13] For example, a recent meta-analysis demonstrated that loneliness has a greater impact on health than obesity, physical inactivity, and air pollution.[11] In addition, a commonly cited statistic is that lacking social connection is as dangerous as smoking 15 cigarettes per day.[2] The distress experienced by those who are lonely may trigger biological changes that are attributed to evolutionary fight-or-flight responses. These responses and their health effects have been studied for decades and have set the foundation for much of what we understand about loneliness.[14–20] Hawkley and Cacioppo specifically examined four potential mechanisms by which loneliness affects health: health behaviors, cardiovascular activation, cortisol levels, and sleep. Hawkley's additional research suggests there is a loneliness regulatory loop that can explain the cognitive, behavioral, and physiologic consequences of loneliness. For example, the theory is that as social beings, people rely on secure surroundings to survive. If there is perceived isolation or loneliness, this increased threat and desire to connect can create physiologic changes that in turn increase morbidity and mortality.[18] Ultimately, it is important for healthcare providers to recognize that the health effects of loneliness extend deeply into many aspects of adult health including increased risks of frailty, cardiac diseases, dementia, diabetes, loss of function, and early death.[1,21–36]

Persons with serious illness, life-limiting illness, or specific chronic health conditions may experience heightened risks for loneliness or unique circumstances because of their conditions. For example, among a sample of adults living with human immunodeficiency virus (HIV), 58% reported symptoms of loneliness, and they reported higher rates of substance use and poor health-related quality of life.[37] In this same study, 70% of respondents identified as homosexual that may raise the risk of loneliness; some studies report higher rates of loneliness compared with heterosexual peers.[38] For many, the stress of HIV or another serious illness can result in feelings of loneliness, and there are specific issues of loss in long-term HIV survivors.

For those diagnosed with cancer, studies suggest that the degree of social support and family presence, length of diagnosis, and changes in physical function can all relate to varying experiences of loneliness.[39] In many large oncology practices, social work and psychological support are part of the interdisciplinary treatment plans for patients, and it is not clear that loneliness is routinely assessed. These findings suggest that there is an opportunity to focus specifically on the experience of loneliness in these patients. In people with chronic conditions such as heart failure, loneliness may be associated with increased healthcare utilization, which presents an additional area to explore.[40] Lastly, in older adults, the loss of peers and spouses creates unique scenarios that place adults at higher risk of loneliness, and ways to remedy this may not be as simple as increasing social support.[41]

More generally, for patients with a range of life-limiting illnesses, the loneliness most often described is that of existential loneliness. Although the experience of existential loneliness can vary between individuals, it may be important for providers working in palliative care settings to understand that loneliness is a distressing symptom in need of addressing, and that it may be a distinct experience that can impact the health and well-being of the individual and, at times, the caregiver.[42,43] Similarly, for people residing in a nursing home at the end of life, an increased awareness of the prevalence and effects of loneliness may help staff to better support patients at the end of life.[44] The data on loneliness on nursing homes placement risk are mixed, but some studies do suggest that loneliness may be a modifiable risk factor that can be used to reduce nursing home admission.[45]

Healthcare systems focusing entirely on traditional risk factors, such as hyperlipidemia and hypertension, may miss opportunities to impact factors that have as great an impact on health. Vast resources, such as new pay-for-performance measures, are expanded on these traditional risk factors, but equal resources are not extended to what are often labeled "social risk factors or social determinants of health." Although there is a need for research to assess whether interventions focused on social risk factors improve health outcomes, existing epidemiological evidence provides hope that interventions focused on reducing loneliness and isolation, as well as fostering social connection, might have a substantial impact on health outcomes.

CLINICAL USE

Loneliness and isolation are not the same, but both carry significant risks to health, and they can either exist separately or together. It is important to avoid assuming that because someone is not lonely that they are not socially isolated. Similarly, a person may not be socially isolated, but they can still feel lonely. For example, it is well described that one can "feel lonely in a crowd." Although loneliness and isolation may co-occur in some individuals, this is not always the case. When looking only at living alone as a proxy for social isolation, a 2012 study examining the health effects of loneliness demonstrated that most participants who identified as lonely were living with others, and more than 60% of those who were lonely were married.[1] Evidence based on meta-analytic data[2] clearly supports the

importance of assessing each factor because the risks may be additive.

In the healthcare environment, discussing and asking about loneliness using validated instruments may allow providers to find more effective ways to connect with patients and improve health. For example, it may be difficult to motivate some patients to better control their diabetes or hypertension by explaining their relationship to heart disease. Yet older adults are often especially concerned about losing independence and cognition, and they may be highly motivated to address contributing factors such as loneliness and isolation.[1,29,46,47] In addition, the link between social isolation/loneliness and cardiovascular health may be an additional way to provide upstream guidance to patients by focusing on their social connections.

A key issue in screening for isolation and loneliness involves deciding where this information will be located in electronic health records (EHRs). In 2014, the Institute of Medicine (IOM) convened a multidisciplinary team to establish an evidence-based consensus on a psychosocial "vital sign" for inclusion in EHRs.[48,49] The IOM identified "Social Connections and Social Isolation" as a crucial domain for inclusion, with evidence supporting its inclusion equivalent to that of race, education, physical activity, tobacco use, and neighborhood characteristics. The IOM recommended the inclusion of an assessment such as the four-component Berkman-Syme Social Network Index (Supplementary Table S1 and Table 2) in *all* EHRs.[50] It is important to know that there are many other measures of social isolation and networks.

Although the IOM report focused on measures of social connection and isolation, loneliness was considered a subcomponent of these measures, and several different measures of loneliness have been used to establish its relevance to health and risk for mortality. Loneliness may be easily identified using the UCLA three-item loneliness scale (Supplementary Table S1).[26,31,36,46,51–54] Efforts are underway to incorporate this loneliness screen into EHRs. For example, Caremore, United, and Cigna each have made efforts to screen for loneliness. A key to successful screening efforts will be the development of composite and brief measures that can be more readily adapted to busy clinical environments. It is notable that there are *International Classification of Diseases, Tenth Revision*, codes that can be used for isolation and loneliness (z60.4 and z65.8) and thus for documentation and tracking of symptoms.

Table 2. Practice Pointers

1.	Don't assume you know who is or who is not lonely.
2.	Consider screening using short and validated measures like the **three-item loneliness screen** and the IOM-recommended **Berkman-Syme Social Network Index** and document this in your electronic health record.
3.	Think about how and why someone may be isolated or lonely, and focus your advice on the mechanism. For example, if the approach is to increase opportunities for social support, give quantifiable and measurable prescriptions.[58]
4.	Ask the patient what he or she thinks would be a solution to their loneliness or social isolation, and familiarize yourself with some of the community programs and resources for older adults in your area. The Area Agencies on Aging are often a good place to start, as is the AARP Connect 2 Affect website.
5.	Advocate for your older adult patients and for policies that support the integration of social services, given that social risk factors have known impacts on health and ultimately healthcare costs.[66]

CLINICAL ASSESSMENT: WHAT TO DO IF RISK IS IDENTIFIED

The experience of loneliness and isolation are complex, and the ways in which someone may become lonely or isolated involve multiple causal mechanisms. Therefore, interventions designed to address each one need to be tailored based on the mechanism of the problem. For instance, simply increasing social contact may reduce isolation but not necessarily reduce loneliness. While we await studies that assess whether reducing loneliness and isolation can improve health outcomes, intervention still seems wise given the distress caused by these syndromes. As healthcare providers, our approach to addressing these can be characterized as individual or structural interventions as well as prevention. We focus on pragmatic strategies that are not resource intensive.

INTERVENTIONS FOCUSED ON THE INDIVIDUAL

The first step in developing a plan for patients that focuses on the individual is understanding what factors are contributing to a person feeling lonely or isolated. The second step is making a recommendation that entails understanding what aspect of isolation loneliness a given intervention is targeting. Masi et al[55] suggest it is helpful to characterize interventions based on what the intervention targets. The four ways to categorize interventions are to help with improvement of social skills, enhance social support, increase opportunities for social interactions, and address maladaptive social cognition (Table 3).

Each one of these categories may have a variety of approaches. For example, interventions focused on the need to improve social skills may include psychotherapy for people who have had difficulties in social situations or have a history of failed relationships. To enhance social support, health professionals first need to know what is missing in a person's life as well as the resources available in the community such as friendly visitors, telephone-based support programs such as the Friendship Line in San Francisco or the Daily Call Sheet in Los Angeles, social groups at centers for older adults, or courses that teach how to use technology to connect with family and friends. For some, it could be accessing healthcare benefits such as Medicaid-covered in-home support services that are in place to promote independence and assistance with activities of daily living but could, as a by-product, offer social support.

Increasing opportunities for social interactions could be as simple as obtaining hearing aids for those with hearing impairment or advising patients on what resources are available in their community for social interactions. Some of the recommendations may involve exploring other barriers to socialization such as transportation or options for

Table 3. Categories of interventions focused on the individual

1.	Improvement of social skills
2.	Enhancing social support
3.	Increasing opportunities for social interactions
4.	Addressing maladaptive social cognition

patients who are homebound. For example, Well Connected (formerly Senior Center Without Walls) provides a telephone-based program for older adults who are potentially homebound around the country. Addressing maladaptive social cognition may be more complicated. In simple terms, maladaptive social cognition is addressed in cognitive behavioral therapy that helps individuals identify their maladaptive beliefs that may be affecting the way they interact with others. The healthcare provider may also need to involve a behavioral health specialist to help individuals identify and cope with negative emotions or experiences related to a life change that could ultimately lead to loneliness.

It is important to note that there is a disconnect between what we know about the importance of naturally existing relationships as a way to promote social connections and the types of interventions studied in the existing literature. Many current interventions for loneliness focus on forming connections with strangers,[56–58] and these may only be helpful interventions in those who are completely isolated and without existing relationships. It may be better in some instances to help individuals maintain and preserve their current relationships as a way to prevent loneliness or prevent its worsening. In recent years there has also been an explosion of solutions for loneliness that are technology based. Although there may be some people who benefit from new technology, there is equally serious concern that technology, if improperly used, may lead to higher rates of loneliness. More broadly, it may be too early to form conclusions on whether technology helps or hinders loneliness in older adults given the wide breadth of the type of technology use.[59,60] It may be worth noting that older adults may actually need to worry more about their grandchildren's use of technology because there are alarming data on the use of technology and rising rates of loneliness in younger cohorts.[61]

STRUCTURAL INTERVENTIONS: MOVING FROM THE INDIVIDUAL TO AN INSTITUTIONAL AND PUBLIC HEALTH LEVEL

The magnitude of the prevalence and effects of loneliness on our communities warrant a population health approach. For this to happen, health systems and/or government entities would need to decide to prioritize loneliness and isolation as critical social determinants of health. For example, in the United Kingdom, the Jo Cox Commission on Loneliness[62] highlighted the public health implications of loneliness, creating a national dialogue that led to the appointment of a minister of loneliness. The national strategy to address loneliness also includes the Campaign to End Loneliness[63] that is composed of a public health awareness campaign, a research advisory group, and a telephone-based intervention called the Silver Line.[64] The United States does not yet have a national campaign backed by the government, but there are increasing national efforts that have been led by AARP through their connect2affect initiative.[65]

An additional structural approach includes the ways in which healthcare information is shared among clinicians, across institutions, and within a population health framework. This involves leveraging the power of EHRs to screen systematically for loneliness and isolation as was recommended by the IOM. We must also think about how to protect privacy when we start to screen systematically for loneliness and isolation. Although the Health Insurance Portability and Accountability Act (HIPAA) has been critical in maintaining privacy, there have been unintended consequences. With HIPAA in place, it becomes difficult to connect family members and/or community agencies to patients at risk for loneliness and isolation when there is not an explicit release of information. This means that if a community provider, such as an in-home support services provider or adult protective service provider, encounters isolation or loneliness, this information does not feed back to the primary care provider, missing an opportunity for an intervention.

PREVENTION

From pediatricians to geriatricians, healthcare providers often discuss with patients their lifestyle choices that can have lasting effects on their overall health. Fostering and maintaining healthy relationships should become part of this conversation. Much like one might not only assess current physical activity level but would also advise a patient on ways to be physically active, the same strategy can be applied for social activity. Clinicians can start to encourage being socially active and inform patients how this can prevent problems in the future and help maintain independence. If such conversations become a routine part of care, they can be included in annual assessments or even general health maintenance screenings just like other comparable lifestyle factors. In turn, these measuring and documenting loneliness and isolation screenings could be a pay-for-performance measure, and by doing so, this could identify potential problems earlier, and they can be addressed more effectively.

In summary, there is extensive evidence demonstrating a high prevalence of loneliness and an association with adverse health outcomes. For loneliness, the state of the science may resemble the early epidemiology of tobacco and obesity research in which evidence that intervention improves outcomes came many years after evidence establishing risk. However, because loneliness is distressing to patients and interventions are likely to improve quality of life, it seems ill advised for clinicians and health systems not to do at least conduct some assessment for loneliness and to consider practical interventions that may not require extensive resources.

Ultimately, larger scale trials are needed to evaluate rigorously the wide range of interventions available. In addition, although the IOM has advocated for a specific measure of isolation (Berkman-Syme Social Network Index), consensus guidelines including how best to concisely measure social isolation and how to couple this to accepted loneliness measures are needed. Similarly, guidelines on

how to best integrate these measures into EHRs and clinical practice are needed. Nonetheless, until trials and guidelines are available, the framework of understanding the pathways to loneliness can help healthcare providers document "psychosocial vital signs" and provide concrete advice and "social prescriptions" for their patients. Lastly, as we shift from fee-for-service to pay-for performance measures, this presents a unique opportunity to focus on all the aspects of people's lives that affect their health. Given the prevalence and the significant health effects, it is no longer acceptable to ignore loneliness, and it is time to bring this epidemic to the forefront and start to offer meaningful solutions.

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SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article.

Slides S1 and S2. PowerPoint slides for Tables 1 and 3.
Supplementary Table S1. How should you screen?