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# Social Disconnection as a Global Behavioral Epidemic-A Call to Action About a Major Health Risk Factor

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> "Do you smoke tobacco? How many cigarettes do you smoke a day?"
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> "Do you drink any alcoholic beverages? How often do you have an alcoholic drink?"

Clinicians routinely ask these questions to patients and they have become a part of electronic health records. These questions were much less standardized in the past, partly because there was less consensus among health professionals and a lack of validated measures. Once research reached a consensus on the adverse health effects of these behaviors on health and developed validated brief screening measures, assessing them became a routine part of healthcare. As a result, there are now several treatment options, including behavioral (e.g., smoking cessation programs, Alcoholics Anonymous [AA]) or pharmacological (e.g., nicotine replacement therapies, medications to reduce alcohol use) therapies, as well as specialty treatment referrals (e.g., addiction treatment services).

In recent years, social disconnection, defined as social isolation and loneliness, has been identified as a key determinant of health that is as harmful to health as smoking.[1] Accumulating evidence spanning more than three decades of research suggests that the effect of social disconnection in predicting all-cause mortality rate is comparable in magnitude to that of smoking (15 cigarettes/day) and greater than alcohol consumption (6 drinks/day).[1] In a meta-analysis of 148 studies (n=308,849), the majority of which adjusted for risk factors such as diet, exercise, and health behaviors, individuals with greater social connectedness had a 50% increased likelihood of survival.[1] This association became more robust when considering studies that used complex assessments of social connectedness, demonstrating a 91% increased likelihood of survival.[1]

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Social connectedness is a fundamental aspect of human nature. From an evolutionary perspective, social connection is not only beneficial to the species that receive support, but also evolutionarily adaptive to those who provide it. Neurobiological data further suggest that when an individual experiences social rejection, they experience increased activation in their stress response system, as well as brain regions activated by physical pain, such as the anterior insula and anterior cingulate cortex.[2]

Social disconnection has been deemed an urgent public health problem. For example, 20–34% and 25–29% of older adults reported being lonely in 25 European countries and the US, respectively.[3] To counter this global epidemic, "Ministers of Loneliness" have been appointed in countries such as the UK and Japan.[3] In the US, the National Academies of Sciences, Engineering and Medicine (NASEM) published a Consensus Report declaring that social disconnection is an underappreciated public health risk factor.[4] There are also concerns that social connections may continue to erode over time due to a broad spectrum of social changes, such as the rise in the value of individualism, shift in telecommunication methods, and rapid evolution of the Internet.[5] The magnitude of this problem has been further compounded by the COVID-19 pandemic. This Viewpoint is a call for action to consider social disconnection as seriously as other major health risk factors. Below, we describe five recommendations for education, health policy, research, and clinical practice to address this public health concern.

## 1. Educate the public and medical community about the importance of social connectedness.

As with any other medical condition, the most fundamental and broadest approach should begin with education. This includes educating parents on the importance of social and emotional skills and teaching social-emotional skills in school (e.g. social and emotional learning course developed by experts in psychology and education) from grade school all the way up to training in the health professions (e.g., medical/nursing school, residency, post-graduate education). Such educational initiatives are essential to training health professionals who are well-versed in the importance of social connectedness, as well as strategies that may help promote it.

## 2. Increase health policy efforts to build a public health infrastructure to bolster social connectedness.

Emerging health policy efforts in different nations have supported population-based interventions to bolster social connectedness. For example, in the UK, there are efforts to promote "social prescribing" as a means of improving the health of individuals who present to their primary care physicians.[6] In this setting, clinicians refer individuals with social disconnection to a "link worker" who is trained to provide emotional support. In the US, the Veterans Health Administration offers a virtual social prescription program called Compassionate Contact Corps in which clinicians link veterans experiencing social disconnection with a volunteer worker who contacts them weekly via phone or video calls to provide socialization and companionship. In order to promote national efforts to

bolster social connectedness, the US public health infrastructure needs major expansion, with rigorous evaluation, refinement, and implementation of evidence-based interventions to assess, monitor, and mitigate social disconnection through large-scale collaborative initiatives (e.g., nursing, social work, home health).

## 3. Create opportunities for research funding.

Research grants and resources are needed to support the development of assessment instruments, as well as the evaluation of prevention and treatment efforts to bolster social connectedness. Public and private funding for multi-site national and international studies of social connectedness is critical to advancing the scientific understanding of social disconnection, as well as optimal strategies for assessment, prevention, and treatment.

## 4. Develop and validate measures to assess and monitor social connectedness in healthcare settings.

Addressing social disconnection could start with early detection while gathering patient histories in clinical practice. Paralleling the practice of primary care-based implementation of brief screening measures such as the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C)[7] to assess alcohol use, healthcare providers could administer validated scales to assess and monitor social connectedness. Currently, there are no established, brief standardized measures that capture the full range of social connectedness. Thus, efforts to develop and validate brief and repeatable versions of standardized measures of social connectedness such as the Medical Outcomes Study (MOS) Social Support Scale[8] are critically needed to improve early detection and monitoring. Individuals identified to have low social connectedness may benefit from therapeutic techniques like motivational interviewing or behavioral activation. Furthermore, the multitude of possible risk factors of social disconnection at the individual, interpersonal, community, and systems levels should be acknowledged. Accurate assessment of these factors will help inform the personalization and prognosis of treatment.

## 5. Rigorously evaluate clinical interventions to enhance social connectedness.

There have been several efforts to develop and implement clinical interventions to enhance social connectedness and improve health outcomes.[9] One example is peer-outreach interventions, which have been found to improve social connectedness and depressive symptoms in many different populations and various settings.[5] Despite such efforts, studies of interventions to bolster social connectedness are limited by small sample sizes, lack of control groups, and relatively poor quality. To date, only a few large-scale randomized clinical trials have been conducted in this area.[10] Adequate evaluation of the efficacy and effectiveness of interventions that enhance social connectedness requires the same rigor and methodology that is applied in clinical trials of medications and psychological treatments.

Importantly, addressing social disconnection in healthcare must not shame or stigmatize the suffering individual, but rather encourage clinicians to consider this major risk factor

for adverse health outcomes and mortality. As the world emerges from the COVID-19 pandemic, we have learned firsthand the enormous impact of social disconnection. In addition, unlike some risk factors for adverse health conditions and mortality, it is modifiable. The time for the medical community to address this public health crisis is now.

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**Conflicts of Interest:**

In the past 3 years, Dr. Na has received royalty from Wolters Kluwer. Drs Jeste and Pietrzak report no competing interests.

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