A PILLAR OF HEALTH

During the past several years, and particularly during the COVID-19 pandemic, there have been rising concerns about social isolation and loneliness as public health issues. Notably, the National Academies of Sciences, Engineering, and Medicine (NASEM) published a consensus report on the medical and healthcare relevance of social isolation and loneliness. The committee concluded that there is substantial evidence that social isolation and loneliness are associated with a greater incidence of major psychological, cognitive, and physical morbidities, with the strongest evidence found for risk for premature mortality. Conversely, several meta-analyses and large-scale prospective epidemiologic studies document the protective effects of social connection. For example, a meta-analysis of 148 independent studies demonstrates that those who are more socially connected had a 50% increase in survival odds relative to those scoring lower on measures of social connection. Controlling for age, initial health status, and a variety of other potential confounding factors, there is a robust body of evidence establishing social connection as an independent protective factor and social isolation and loneliness as risk factors for premature mortality from all causes.

Socially isolated patients (those with inadequate social resources) experience poorer clinical outcomes, including increased hospitalization and higher medical costs. Social isolation significantly predicts a greater risk for coronary heart disease and stroke, type 2 diabetes, and susceptibility to viruses and upper respiratory illnesses. Furthermore, there is evidence of the mechanisms by which social connection may influence morbidity and mortality, including psychological factors such as perceived stress and depression; behavioral factors such as sleep, physical activity, and smoking; and biological factors such as inflammation. Put simply, one’s social well-being can significantly influence chronic disease morbidity and mortality. However, few healthcare professionals discuss this with their patients. Explicit acknowledgment of the health effects of social connection/isolation within the medical community, establishing a biopsychosocial/emotional approach to health, is a potentially important step in addressing this gap.

THE CONTINUUM OF SOCIAL CONNECTION

These chronic health and mortality findings are based on scientific evidence accrued utilizing diverse conceptualization and measurement approaches, including the structure (existence of relationships and social roles), function (actual or perceived support or inclusion), and quality (positive and negative affective qualities) of relationships. Each aspect consistently predicts morbidity and mortality, but they are not highly correlated, suggesting each may be contributing to risk and protection independently. When multidimensional assessments that encompass the structure, function, and quality of social relationships were considered, the odds of survival were 91%, relative to 50% when these components were averaged. Thus, on the basis of converging evidence, the umbrella term “social connection” refers to a multifactorial construct used to predict health risk (when low) and protection (when high).

On the basis of aggregate data, the evidence supports a continuum from risk to protection. Data from four nationally representative samples document a dose-response effect of social connection on physiologic regulation, including blood pressure, body mass, and inflammation, and health disorders across the life course from adolescence to older age. These data suggest a causal continuity of influence on biomarkers of disease, with early emergence and persistence during the life course. Insufficient social connection, whether it is because of poor quality or infrequent contact, can lead to physiologic dysregulation and, over time, poorer health. Thus, disrupt-
ing the physiologic dysregulation associated with social dis-
connection, or maintaining regulation associated with posi-
tive social connection, may be key to delaying or preventing
chronic disease later in life. Like other lifestyle factors, one’s
level of social connection can become a chronic pattern that
can put a patient on a path to better or poorer health.

ROLE OF PHYSICIANS

Is it possible to prevent, treat, or even reverse diseases and
health problems by enhancing positive social connection?
Evidence has amassed on the strong causal associations
between social relationships and mortality as well as other
health outcomes.1,14,15 and there is emerging evidence of
impacts on healthcare utilization.1 Nonetheless, important
questions remain as to how we can translate this evidence
to promote health. Although efforts to promote health go
beyond the medical community, physicians can take an
active role. Indeed, the NASEM consensus committee rec-
ommends that physicians include assessing and promoting
social connection as part of ongoing primary, secondary, and
tertiary prevention and care.1

When benchmarking the magnitude of effects of social
connection on mortality risk, the effects are comparable
with and in some cases exceed those of other lifestyle fac-
tors such as smoking cessation, alcohol consumption, body
mass index, and physical activity, as well as medical inter-
ventions such as antihypertensive medications and flu vac-
cinations.2,13 However, the public tends to underestimate the
importance of social factors relative to these other factors16—
factors physicians routinely discuss with patients. Thus, it is
important to educate patients on the importance of social
connections for health—emphasizing evidence demonstrat-
ing that it is an important health risk factor.1 Such education
may include practical evidence-based steps individuals can
take to apply this in their lifestyle (eg, joining social groups,
mindfulness practices, volunteering). Education and aware-
ness are needed to buoy preventive efforts because preven-
tion may be more effective than trying to reverse the severe
health consequences resulting from long-standing patterns.
Social connection also significantly influences other lifestyle
factors (eg, nutrition, physical activity, sleep) implicated in
chronic disease development and progression,17 via social
encouragement, social control, and social norms that guide
behavior. Thus, promoting positive social connection and
supports has the potential to help patients achieve other
treatment goals.

Just as physicians routinely assess other risk factors,
assessment of patients’ level of social connection is needed.
The Institute of Medicine identified social connection/isola-
tion as one of the 10 domains most crucial to influencing
health outcomes and treatment effectiveness and recom-
mended the inclusion of social connection/isolation in the
electronic health record (EHR).18 Routine assessment, using
validated instruments (eg, PROMIS,19 the UCLA Loneliness
Scale,20 or the Social Network Index),21 allows for identifica-
tion of early risk and any changes may be tracked over time.

By identifying patients at risk, mitigation steps can be
taken to disrupt or reverse further progression. Physicians
and other healthcare professionals can discuss with a patient
factors that may have contributed to changes in social con-
nection and tailor their approaches to the patient’s back-
ground, needs, and desires.1 There are many examples of
coordination between the healthcare system and commu-

nity-based social care providers included in the National
Academies’ report Integrating Social Care into the Delivery of
Health Care.17 Referrals should also take into account barri-
ers to access. For example, physicians often explain the ben-
fits of exercise but struggle getting patients to actually exer-
cise. Just as patients may not have access to a pool or prefer
walking to swimming, patients may lack access to existing
social supports or community-based social programs, and
patients may prefer some social programs over others. Thus,
tailored approaches that address underlying causal factors
are needed. Physicians may access Commit to Connect,
housed within the Department of Health and Human Ser-

vices’ Administration for Community Living, to identify best
practices and evidence-based interventions.22 Further, data
from 106 randomized clinical trials and more than 40,000
patients revealed that patients who received psychosocial
support in addition to treatment as usual were 20% more
likely to survive and 29% more likely to survive longer than
patients who just received standard medical treatment.23 This
suggests support providers to patients within clinical settings
significantly improves treatments outcomes.

CONCLUSION

Lifestyle and behavior are widely recognized as the prime
drivers of chronic disease, and the degree of social connect-
ion is just as influential yet is currently underappreciated by
most patients as relevant to health. Thus, promoting positive
connection in clinical care settings is recommended across
the life course, from pediatrics to geriatrics. It may be pos-
sible to improve prevention and treatment of the leading
chronic diseases and increase life expectancy by enhancing
positive social connection.

REFERENCES

1. National Academies of Sciences, Engineering, and Medicine. Social Isolation and
   Loneliness in Older Adults: Opportunities for the Health Care System. Washington,
2. Leigh-Hunt N, Buggsley D, Bash K, et al. An overview of systematic reviews on
   the public health consequences of social isolation and loneliness. Public Health.