



# Social Engagement and Cognition: A Key Component of Successful Aging

## What Is Already Known

Social engagement is defined as meaningful and sustained contact with at least one other person that is intrinsically and mutually beneficial pertaining to a common interest, activity, or goal. There is no obligation, and no one is paid for these interactions. Surgeon General Vivek Murthy has focused on the deleterious impacts of loneliness — a related construct to social engagement — on health, including among older adults. Research suggests that loneliness can shorten a person's life by an estimated 15 years — the equivalent of smoking 15 cigarettes per day.

Others have explored whether midlife social engagement may help reduce risk for later-life dementia. Social engagement may protect cognitive function and reduce the risk of cognitive decline throughout the life course and may provide benefits to many individuals, including persons with dementia. Among older individuals with a genetic risk for dementia through APOE- $\epsilon$ 4 (an APOE gene allele associated with increased risk for dementia in some populations), rates of dementia were lower among those who frequently engaged in social activities.

## Background and Evidence Base

Social engagement is considered a key component of successful aging and an integral part of overall health. Although it may have less enduring impacts in midlife, social engagement appears to minimize dementia risk among older adults.

One possible mechanism by which social engagement may facilitate cognitive function and protect against cognitive impairment is through a buildup of cognitive reserve, which refers to increased neuronal connections and more efficient processing in the brain that enable a person to continue to carry out cognitive tasks despite brain changes. Greater cognitive reserve may allow the brain to maintain function and cope with conditions associated with cognitive impairment, such as cerebrovascular disease and atrophy. It evolves over the lifespan and theoretically maybe promoted by interventions at all stages of life.

Of note, social engagement and loneliness can coexist. While loneliness and social isolation (the lack of social

connections) are both associated with increased rates of cognitive decline, social engagement is the converse of social isolation.

## Implications for Public Health

Promotion of social engagement must be culturally compatible and specific. Priority populations or groups that may be at increased risk for social isolation/lower levels of social engagement include:

- Women, who tend to live longer than men, and are more likely to be caregivers or widows.
- Members of underrepresented racial and ethnic communities, who may be at increased risk of social isolation due to the impact of migration and immigration on social ties and subsequent engagement, as well as the effects of discrimination across the lifespan. They also have higher rates of engaging in risky behaviors during social engagement (e.g., smoking).
- Rural residents may be more likely to experience social isolation stemming from poor transportation infrastructure and subpar digital connectivity.
- Lesbian, Gay, Bisexual, and Transgender (LGBT) individuals may be subjected to stigma and/or lack a family support network, leading to less social engagement.

It remains important to understand intersectional populations in relation to social engagement, such as older Black and other men, as they have been largely underincluded in related studies. Also still needed are multi-site collaborations to examine and scale up existing community-based strategies to facilitate and foster social engagement, especially among priority populations (e.g., leveraging the efforts of Outreach, Recruitment, and Engagement Cores in the NIA-funded Alzheimer's Disease Research Centers). Once priority populations are identified, strategies and interventions may be further developed, tailored, and tested accordingly.

For strategies and interventions designed and implemented in the post-COVID era, hybrid formats (i.e., social engagement activities with both an in-person and virtual option) are likely needed for the foreseeable future. In



addition, as this issue has gained traction internationally, programs from other countries are a potential source for adaptation and testing in the United States for evidence of efficacy.

## Discussion

Few randomized clinical trials or intervention studies exist that specifically tease out social engagement as an independent variable related to cognitive function/impairment. Such studies are needed to address directionality of impact (e.g., does social engagement affect cognitive function, or does cognitive impairment affect social engagement), the distinct role of social engagement and its collective impact with physical and cognitive activity, and the importance of social engagement in midlife and from mid- to late-life.

Studies are still needed to determine the most effective types of social engagement, how much social engagement is needed for cognitive benefit, and the best ways to define and measure social engagement. In addition, overlapping concepts are often found in the literature (e.g., social isolation vs. loneliness, social participation vs. social contact), confounding a clear understanding of what interventions might be needed and designed.

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