

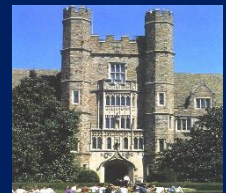
Social Isolation and Loneliness A Public Health Problem

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**This presentation is based on a National Academies
Consensus Committee Report released in 2020.**

**Surgeon General Vivek Murthy's Advisory Raises Alarm about the
Devastating Impact of the Epidemic of Loneliness and Isolation in the
United States (March 2023)**

British Establish a Minister of Loneliness (2018)

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

CONSENSUS STUDY REPORT



Social Determinants of Health and Mental Health

- Over the 20th and 21st century, factors such as **socioeconomic position, race/ethnicity, gender, sexual orientation** and others have populated the literature with ever increasing evidence of their importance to health. (Hollingshead and Redlich, 1958; NASEM, 2020)
- Significant disparities in mortality have been found for different **occupations, different education and income strata**. (Sachs-Ericsson et al, 2005)
- Many commentators have noted that these inequities in health were **often avoidable**, arising from the circumstances in which people grow, live, work, and age, and the systems put in place to deal with illness. These circumstances, in turn, are shaped by political, social and economic forces. (CSDH, 2008)

We have known the risks for years. What can mental health professionals do?

Working Definitions

- ***Social connection*** is an overarching term that encompasses other commonly used terms describing structural, functional and quality aspects of human relationships and interactions.
- ***Social isolation*** is the objective lack or limited extent of social contacts with others, e.g., marital status, living alone or with others.
- ***Loneliness*** is the perception of social isolation or the subject feeling of being lonely.
- ***Solitude*** is the voluntary withdrawal from social interaction, such as meditation

Social Isolation and Loneliness are related yet different constructs. We can be lonely without being socially isolated (Riesman, et al: The Lonely Crowd, 1950) and we can be isolated without being lonely (Wenger et al, 2004)

The Evidence – not simply a problem for older adults

- In a 2020 report from the National Health and Aging Trends Study, prior to the COVID outbreak, investigators found that **24%** of community-dwelling adults age 65 and older in the United States (approximately 7.7 million people) were **socially isolated** and **4% (1.3 million people) were severely socially isolated**. (Cudjoe et al, 2020)
- Between 1985 and 2016 the number of people saying there is no one with whom they discuss important matters nearly tripled. The **mean network size decreased by about a third, from 2.94 in 1985 to 2.08 in 2004** (McPherson et al, 2016)

Epidemiology

The AARP foundation undertook a survey and found that 35% of adults age 45+ in the United States reported feeling lonely. (Anderson, 2018)

Putman, in his widely distributed book, *Bowling Alone* in 2001, described the decline in all forms of in person intercourse and how this disrupts civil engagement across age groups (**emphasized importance of social capital**).

Who is at risk for Social Isolation and Loneliness

- **unmarried**
- **male**
- **low education**
- **low income**
- **Individuals who identify as LGBTQ**
- **Sensory impaired such as hearing impairment**
- **Cognitive impairment**
- **Other psychiatric disorders (bi-directional)**
- **Physical health problems and functional impairment (bi-directional)**
- **Divorce**
- **Caregivers**
- **Etc.**

Adverse Health Outcomes Secondary to Social Isolation and Loneliness

Social isolation has been associated with a significantly increased risk of premature mortality from all causes (**risk rivals smoking and obesity**) (Berkman and Syme, 1979; Blazer, 1982)

Social isolation has been associated with an approximately **50 percent increased risk of developing dementia** (Penninkilampi et al, 2018)

Poor social relationships (characterized by social isolation or loneliness) have been associated with a **29 percent increased risk of incident coronary heart disease and a 32 percent increased risk of stroke.** (Grant et al, 2009)

Adverse Mental Health Outcomes

- Major Cognitive Disorder*
- Depression
- Anxiety Disorders

Major Cognitive Disorder

- Among cognitively normal adults, increased perceptions of loneliness have been associated with higher levels of brain amyloid and regional accumulation of tau protein, linking loneliness with pathological changes of early Alzheimer's disease. (Donovan NJ, , 2016)

Measurement of Social Isolation and Loneliness

Assessing Social Isolation

The Berkman Syme Social Network Index, 1979

1. In a typical week, how many times do you talk on the telephone with family ,friends, or neighbors?

2. How often do you get together with friends or relatives?

3. How often do you attend church or religious services?

4. How often do you attend meetings of the clubs or organizations you belong to?

• **NOTE: Marital status is assessed separately and included in scoring.**

UCLA Loneliness Scale

1. First, how often do you feel that you lack companionship: Hardly ever (1), some of the time (2), or often (3)?
2. How often do you feel left out: Hardly ever (1), some of the time (2), or often (3)?
3. How often do you feel isolated from others: Hardly ever (1), some of the time (2), or often (3)?

SOURCE: Hughes et al., 2004

Evidence Based Interventions (and potential pathways for the future)

Indirect Interventions

- Hearing aids to mitigate the impact of hearing loss on SI/L. (Expensive but cost is coming down, usability going up.)
- Enhancing physical mobility or access to transportation (Age Friendly Communities)
- Social Prescribing.

Social Prescribing

- Providing or referring to resources or support for older adults who have recently relocated or who are bereaved is an example of social prescribing, a common practice in which practitioners help patients access non-clinical sources of support within the community.
- Social prescribing is referring or connecting persons to non-clinical sources in the community. This may be either an indirect or direct means of reducing social isolation and loneliness, either by facilitating patient engagement in voluntary organizations (e.g., Experience Corps) and community groups broadly or by facilitating specific referrals to community organizations which directly address social isolation and loneliness.

Holt-Lundstad et al, 2021 :Effects of psychosocial support interventions on survival in inpatient and outpatient healthcare settings: A meta-analysis of 106 randomized controlled trials

Investigators evaluated studies reporting disease-related or all-cause mortality for over 40,000 subjects

Psychosocial support in medical settings generally promote survival and increase survival time to an extent comparable with rehabilitation programs.

Cognitive Behavioral Therapies

- Psychotherapeutic approaches to reduce SI/L have included cognitive behavioral therapy and mindfulness-based approaches, with some studies showing efficacy for reducing loneliness and improving social interactions.
- Research suggests that lonely individuals interpret social interactions more negatively and are more likely to perceive social threat compared to those who are not lonely. Lonely individuals have also been found to score lower on tests of executive function compared to their non-lonely peers. It is hypothesized that these cognitive-emotional biases may lead to a cycle of worsening withdrawal and loneliness. (Cacioppo et al, 2015)

Tele Health Approaches

- A recent study compared a 5 week, **tele-delivered behavioral activation intervention** for homebound lonely older adults to a tele-delivered friendly visit and found greater improvements in social interaction, perceived social support and loneliness in the tele-delivered behavioral activation group at 6 and 12 weeks. (Choi et al, 2020)

Technology and Robotics

- Cotten and colleagues (2013) examined the usage of information technologies among older adults in assisted and independent living communities in Alabama and found that **Internet use was associated with lower levels of loneliness.**
- Tsai and Tsai (2011) used **videoconferencing software (such as Zoom)** to connect nursing home residents with remote family members during a 3-month intervention deployed in 16 nursing homes in Taiwan. The program had a long-term effect in **alleviating depressive symptoms and loneliness for nursing home residents,** and it also improved long-term emotional social support and short term appraisal support.

However!

- However, many older adults do not use or do not have available social media and other technologies. (They have trouble turning on and tuning their smart TVs!)
- Training efforts have been started across the country. The CHIPs (Computers for Homebound and Isolated Persons) program sought to create an online community for individuals who were homebound and to connect seniors with others in similar circumstances (Bradley and Poppen, 2003). A one year follow up showed that the participants' level of satisfaction in the amount of contact with others increased significantly
- Technologies have been made more user friendly (touch screens).

Social Robots

- A *social robot* is defined as an artificial agent (often embodied with anthropomorphic or zoomorphic features) that interacts with humans by following the social norms and behaviors attached to its role (Broekens et al., 2009)
- Pu and colleagues (2019) in their meta-analysis of randomized controlled trials examining the effectiveness of social robots for older adults reported that social robot interactions have the potential to “improve engagement, interaction, and stress indicators, as well as reduce loneliness and the use of medications among older adults”.
- One of the most common and frequently examined social robots is **PARO**, a robotic baby harp seal.

PARO



Ethical Considerations with Technology and Robotics

- These technologies and robotics are usually designed without consideration of their ethical implications.
- Some considerations:
 - Can they be used by people with disabilities (e.g., the hearing impaired)?
 - Can they lead to loss of autonomy and decision making capacity?
 - Are they used at times without informed consent?
 - Do they exacerbate rather than hinder social isolation?
 - Are they safely used by older adults (consider a power cord)?
 - Do they de-emphasize the importance of actual in-person social interaction?

Conclusions

Covid-19 changed everything (brought loneliness out of the closet), and nothing

- **Older adults are at high risk for morbidity and mortality due to COVID-19, be institutionalized, and, on that basis, are likely to experience prolonged isolation.**
- **In communities where “stay-at-home” instructions have been imposed, older persons, especially those in residential or long term care facilities, may be restricted from interacting with spouses, family and friends who live within or outside these communities. These older adults may face extreme isolation and they have caught the attention of the news media.**

Conclusions

- Many older adults do not have access to email, social media or video-conferencing which have been widely implemented to compensate for the lack of in-person social contacts.
- Furthermore (as noted before), **the adequacy of these technologies is unstudied and their advantages maybe offset by missing aspects of human interaction such as touch and three-dimensional perspective.**