

# The Relationship between Dementia and Social Isolation

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January 18, 2023



# Loneliness & Social Isolation

- Loneliness increases with age
  - 43% of older adults aged 65 and older report feeling lonely (Cacioppo et al., 2015; Perissinotto et al., 2012)
- Social isolation & loneliness predict a heightened risk of cognitive decline and dementia among older adults (Evans et al., 2019; Griffin et al., 2020; Shankar et al., 2013; Sutin et al., 2020).
- Loneliness is associated with decline in cognitive functioning over a 10-year period and a 40% increased risk of dementia (Sutin et al., 2020)



# Structural Barriers: Loneliness & Social Isolation

Transportation

Distance

Financial constraints

Lack of Internet access

Challenges in using technology for social purposes



*National Academies of Sciences,  
Engineering, and Medicine  
Consensus Report (2020)*

# Person-Level Barriers: Loneliness & Social Isolation

Poor Health (Chronic Illness, Pain)

Hearing and Vision Impairments

Mental Health Challenges

Mobility Constraints

Life Changes: Retirement, Loss, Grief

Living Alone

Race: Minority Backgrounds



*National Academies of Sciences,  
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# Potential Interventions

Cognitive  
Behavioral  
Therapy

Primary Care  
referrals

Support Groups &  
Community-Based  
Interventions

Technology Based  
Interventions

# **The Role of Social Technology Use in the Relationship between Social Isolation and Dementia**

# Can Technology Influence the Relationship between Social Isolation and Cognitive Decline?

- In 2017 67% of older adults report using the Internet (Anderson & Perrin, 2017)
- Internet-based social technology use is associated with lower loneliness, greater well-being, & lower depressive symptoms (Chopik, 2016; Zhang et al., 2021)
- An 8-week social tech intervention led to working memory improvements at post-test (Myhre et al., 2017)
- Social technology use may mitigate the negative effects of social isolation on cognitive decline



## Cognitive Functioning

- Modified Telephone Interview for Cognitive Status (TICS), a valid and reliable measure of cognitive functioning that has strong sensitivity for identifying dementia (Castanho et al., 2014; Seo et al., 2011)
- TICS includes: Immediate and delayed memory recall, backwards count test of attention, and serial sevens subtraction task

## Social Technology Use

“On average, how often do you communicate by Skype, Facebook, or other social media with any of your (children, other family members, friends) not counting any who live with you?”

## Methods

## Loneliness

- 11-item shortened version (Hughes et al., 2004) of the UCLA Loneliness Scale was used to assess subjective feelings of loneliness and social isolation

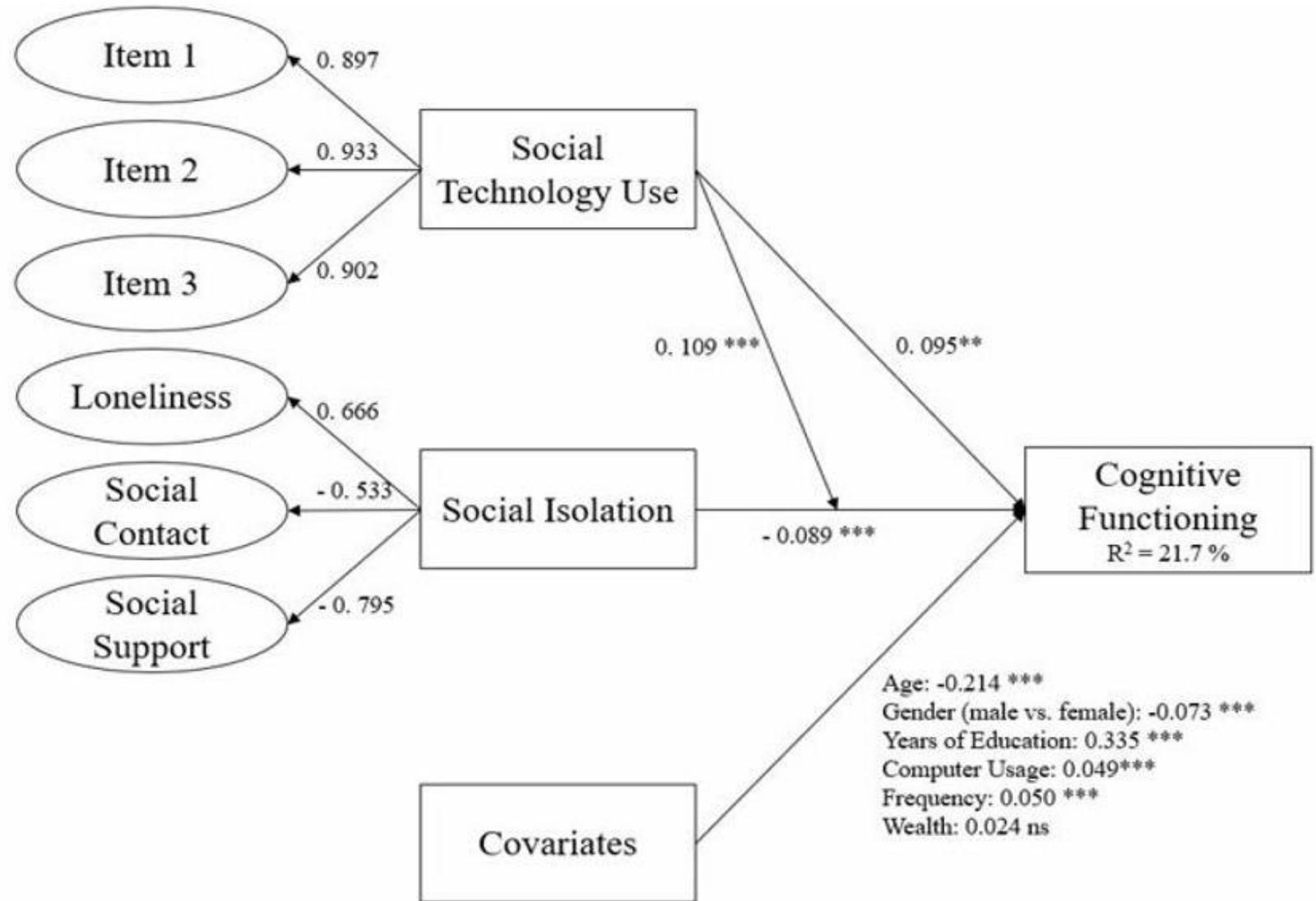
## Demographics

- Race, Age, Gender, Education, Wealth, Computer Use Frequency, Rurality (Beale Rural-Urban Continuum Codes)

# Results

## Key Finding:

Social tech use is associated with greater cognitive functioning among more socially isolated older adults



# Conclusions

- Overall, greater social tech use is associated with better cognitive functioning among socially isolated individuals



- Rural-urban and racial differences also emerged:
  1. Rural older adults who use social technology MORE experience less loneliness than urban older adults
  2. The benefits of social tech on cognitive functioning are significant for Black but not White older adults

# Implications

- Social isolation is a modifiable risk factor that occurs late in life and has rapid, detrimental effects on cognitive decline
  - Social isolation may be a more problematic risk factor for rural older adults than minority groups, and social technology may help address this barrier
- Social technology may offer a means to mitigate cognitive decline
- Future research should be aimed at developing and implementing such interventions
- The potential benefit of such technology may be particularly promising among Black older adults

THANK YOU

