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Impacts of Social Isolation on Subjective Brain Health Among LGBTQ+ Adults Aged 45 and Older

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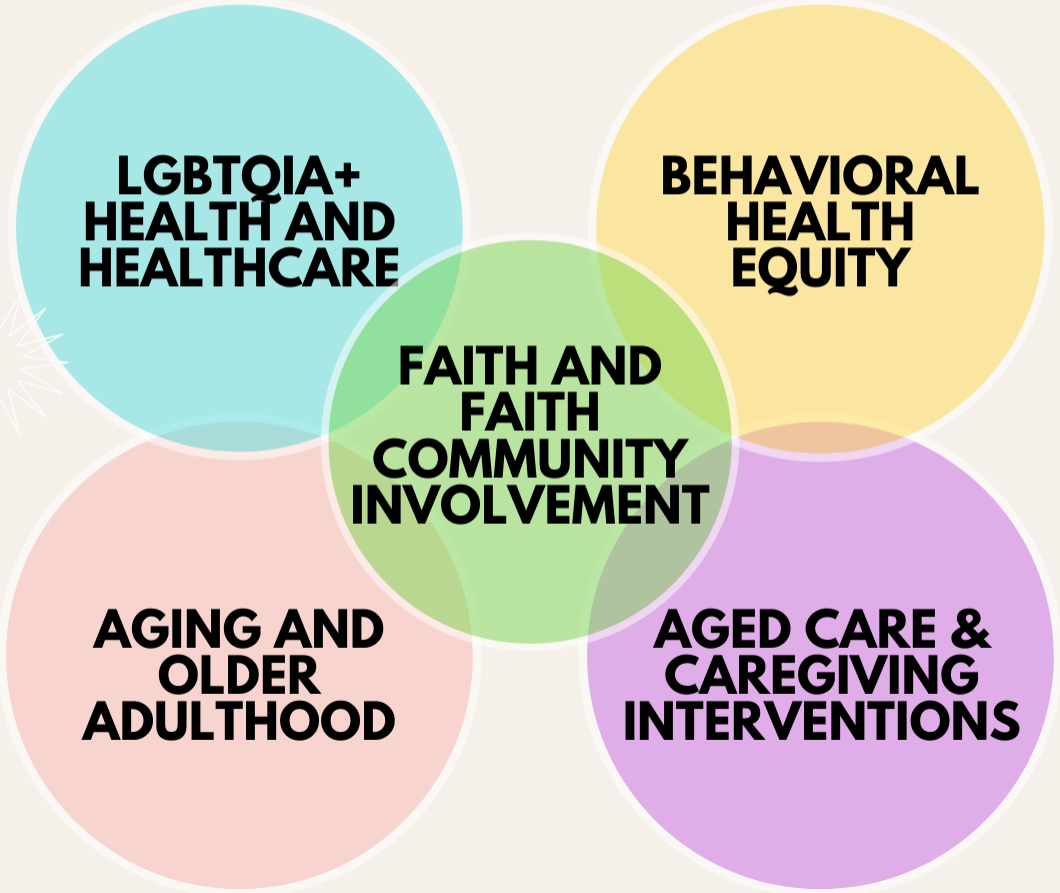
Academic Background

RESEARCH PROGRAM



Learning Objectives

Objective 1

Identify key drivers that contribute to social isolation in midlife and older LGBTQ+ populations

Objective 2

Describe the relationship between social isolation and subjective brain health among LGBTQ+ midlife and older adults in the U.S.

Objective 3

Analyze impacts of social isolation on brain health disparities among LGBTQ+ communities, and discuss evidence-based strategies for addressing these disparities

Objective 1:

Identify key drivers that contribute to social isolation in midlife and older LGBTQ+ populations

LGBTQ+ people experience earlier onset, more severe disease

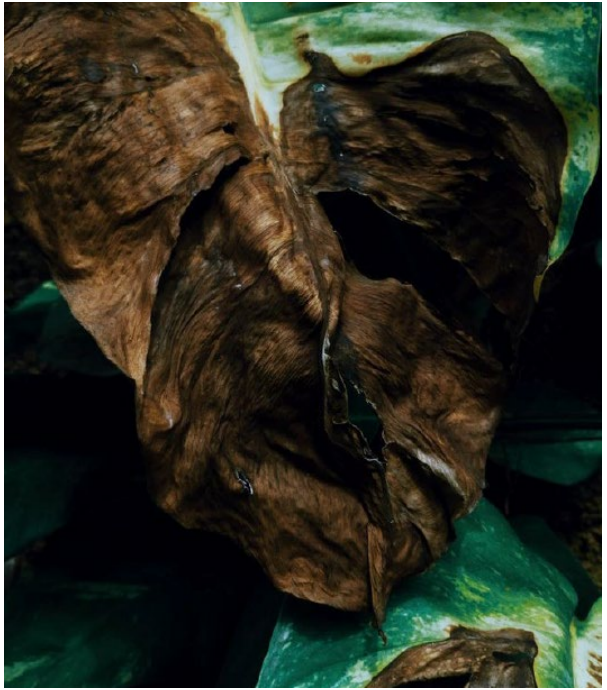
- Substantial disparities in arthritis, type 2 diabetes, cardiovascular risk, mental health, suicidality, and multiple morbidity
- Evidence suggestive of disparities in aging related diseases, like Alzheimer's and other dementias
- Elevated risk of chronic fatigue, chronic pain, and sleep disorders
- Substantial disparities in cancer risk, especially cervical, breast, lung, prostate, skin, anal, colorectal, oropharyngeal
- Earlier all-cause mortality
- Health disparities vary widely across LGBTQ+ subgroups

Disparities in cognition and cognitive decline among LGBTQ+ adults

- LGBTQ+ adults report higher prevalence and more severe cognitive decline
- Difference in subjective cognitive decline (SCD) is 17% vs 11% for sexual minority women and 15% vs 10% for sexual minority men compared to nationally representative heterosexual samples
- Despite higher need for help with independent activities, 28% of sexual minority women who need help don’t get help
- Compared to cisgender adults, transgender adults have a higher likelihood of reporting SCD, with trans women exhibiting 1.6 times higher odds of SCD than trans men

Stress and biological processes driving health disparities

- Minority stress, structural stigma, hypervigilance
- Sleep disruption
- Biological aging
- Metabolic dysfunction
- Vascular changes
- HIV- and HIV-treatment related changes
- Hormone replacement therapy is an evolving area
  - Testosterone and estrogen may influence later-life cognition, but research is very limited



Disparities in social support and networks among LGBTQ+ adults aged 45+

- Higher likelihood of living alone, being unmarried/unpartnered, and having no children or kin
- **Smaller or less immediate family networks; greater reliance on “chosen families”**
- **Gaps in caregiver support quality and availability**
- Increased risk of social isolation and loneliness
- Disparities are more pronounced in rural and under-resourced areas
- COVID-19 further intensified support disparities

Key drivers of health and social support disparities among LGBTQ+ adults aged 45+

- **Historical and systemic discrimination**
  - Lifetime exposure to stigma, marginalization, and violence
  - Anti-LGBTQ+ policies limiting legal protections and resources
- **Barriers to care services, support, and resources**
  - Ongoing crisis in formal LGBTQ+ and transgender healthcare education and training
  - Erasure of LGBTQ+ populations in research and clinical trials
- **Economic and social capital insecurities**
  - Higher poverty rates, especially among trans people and bi+ women
  - Difficulty accessing resources (e.g., food security, caregiver support) that resource-rich social networks normally provide

Additional challenges contributing to poorer outcomes for LGBTQ+ adults aged 45+

- Baby Boomers are often referred to as the first “out” generation
  - Limited/no models of aging
  - Frequently, aging is unexpected, unplanned for (“I never expected to live past 40 and now I’m 60. What do I do?”)
- Targeted LGBTQ+ older adult supports are limited
  - Mainstream support organizations are sometimes risky, may be faith-based, individual staff may be non-affirming
  - Often aging without a partner/spouse or child
  - Support networks will look different, involve more friends, community members, and formal/paid help

Objective 2

Analyze the associations between social isolation and subjective brain health, wellness, disability, and chronic disease outcomes among LGBTQ+ adults aged 45+

Impacts of Social Isolation on Subjective Brain Health Among LGBTQ+ Midlife and Older Adults



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Study overview

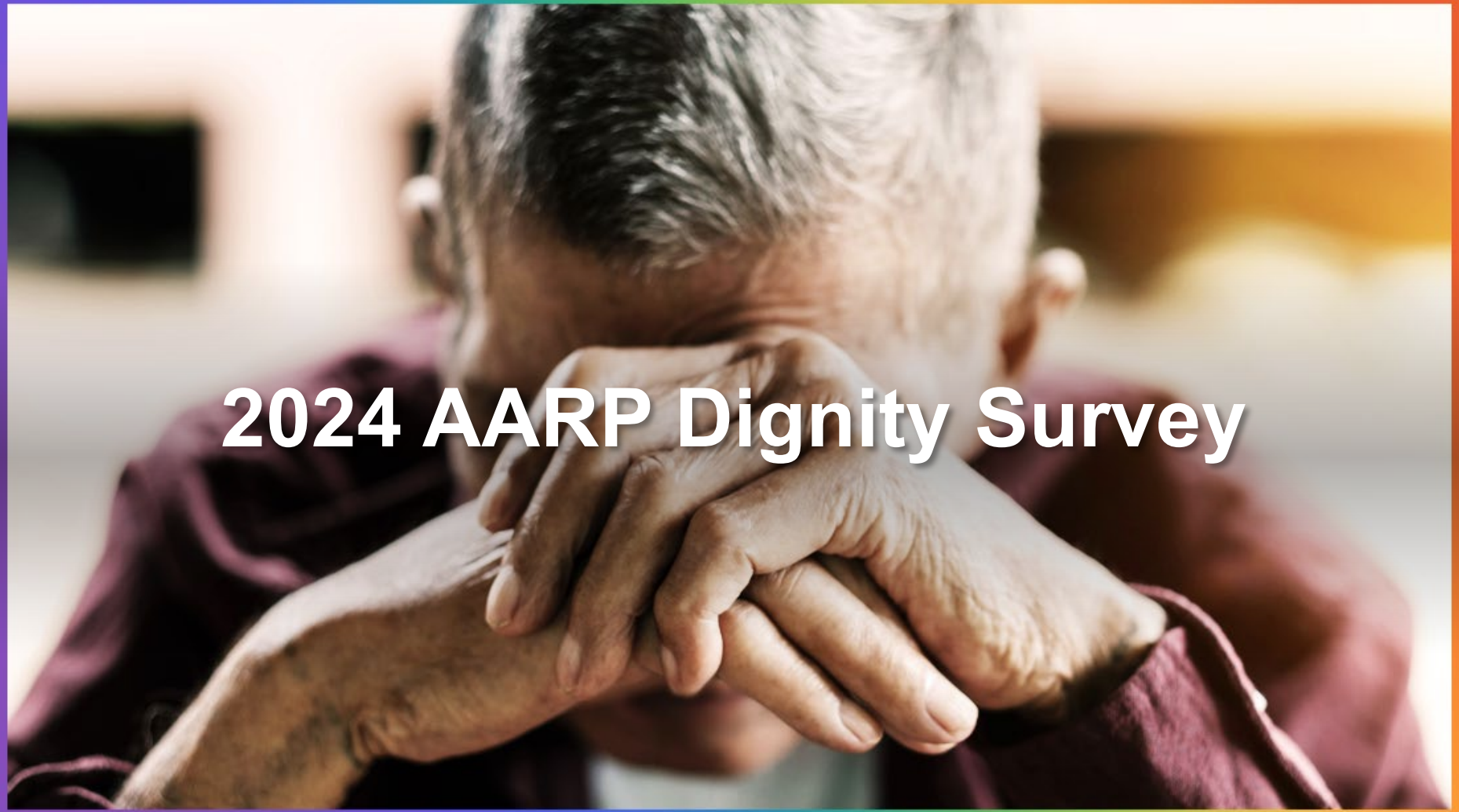
Data: AARP Dignity 2024 Survey (N=2,212), which sampled LGBTQ+ adults aged 45+ in the U.S.

Descriptive statistics to summarize sample characteristics

Chi-square tests and logistic regression models to examine associations between social isolation and outcomes, including:

- Subjective brain health
- Wellness
- Disability and Chronic Disease

Moderation analyses to examine interaction effects between social isolation and age group in predicting health outcomes


2024 AARP Dignity Survey

Social isolation

Assessed using the validated 3-item UCLA Loneliness Scale

“In general, how often do you feel the following?”
I lack companionship
I feel left out
I feel isolated from others
1 = Often or Sometimes; 0 = Rarely, Never, or Not sure

Combined variables as…
0 = 0 No Social Isolation; 1/3 = 1 Social Isolation

Subjective brain health

SBH indicators

“How would you describe each of the following at this point in time? Would you say it is excellent, very good, good, fair, or poor? “

Ability to remember or recall things

Ability to make decisions

Engage in problem solving

Ability to focus or pay attention

Ability to learn new things

Brain health index score

0 "Good, Fair, or Poor"

1 "Excellent or Very Good"

Self-reported cognitive disability

0 “No”; 1 “Yes”

SBH composite index

0/4 = “Good, Fair, or Poor” SBH

5/6 = “Excellent or Very Good” SBH

Importance of brain health

“How important do you think it is to maintain your brain health?”

0 “All other responses”

1 “Extremely important”

Concern about future brain health

“How concerned are you about brain health declining in the future?”

0 “All other responses”

1 “Very Concerned” or “Extremely Concerned”

Wellness, disability, and chronic disease

Well-being indicators

"How would you describe each of the following at this point in time? Would you say it is excellent, very good, good, fair, or poor?"

Life satisfaction
Happiness
Overall quality of life

0 "Good, Fair, or Poor"
1 "Excellent or Very Good"

Well-being composite index
0–2 = "Good/Fair/Poor Well-being"
3 = "Very Good/Excellent Well-being"

Self-reported disability / chronic disease

"Do you have a disability or chronic disease?"

Disability
Chronic disease
Both disability and chronic disease

0 "No";1 "Yes"

Visual disability 0 "No"; 1 "Yes"

Hearing disability 0 "No"; 1 "Yes"

Physical mobility disability 0 "No"; 1 "Yes"

Covariates

- **Age range** (age 45-54, age 55-64, age 65-74, age 75+)
- **Gender identity** (trans and non-binary individuals, cisgender men, cisgender women)
- **Sexual orientation** (lesbian, gay, bi+, queer, other individuals)
- **Race/ethnicity** (Black, non-Hispanic/Latino, Hispanic/Latino (any race), White, Non-Hispanic/Latino, other race/ethnicity)
- **Household income** ($25,000, $25,000–$100,000, over $100,000)
- **Martial/partner status** (not married/partnered, married/partnered)
- **Employment status** (retired, full-time employment, another employment status)

Results

Descriptive Statistics

In the AARP Dignity 2024 Survey sample, 63.0% (3 in 5) of LGBTQ+ adults 45+ reported experiences with social isolation.

Socially isolated respondents were more likely to be:

- **Aged 45–54** than those aged 55–64 (67.9% vs. 63.2%, $p<0.01$), 65–74 (67.9% vs. 59.8%, $p<0.01$), and 75+ (67.9% vs. 56.2%, $p<0.01$)
- **TGNB individuals** than cisgender women (75.2% vs. 59.9%, $p<0.001$) and cisgender men (75.2% vs. 61.7%, $p<0.001$)
- **Multiracial or multiethnic** compared to respondents of a single race or ethnicity (71.4% vs. 62.4%, $p<0.05$)
- **Not married or partnered** (79.3% vs. 50.7%, $p<0.001$)
- **With household incomes below $25,000** than $25,000–$100,000 (79.3% vs. 67.4%, $p<0.001$), over $100,000 (79.3% vs. 49.8%, $p<0.001$), or prefer not to answer (79.3% vs. 61.0%, $p<0.001$)

Socially isolated respondents were more likely to report good, fair, or poor:

- **Ability to remember or recall things** (71.0% vs. very good or excellent 55.1%, $p<0.001$)
- **Ability to make decisions** (80.6% vs. 57.1%, $p<0.001$)
- **Engage in problem solving** (77.4% vs. 58.2%, $p<0.001$)
- **Ability to focus and pay attention** (74.9% vs. 54.3%, $p<0.001$)
- **Ability to learn new things** (74.3% vs. 57.5%, $p<0.001$)
- **Overall SBH** (75.5% vs. 55.0%, $p<0.001$)
- **SBH index scores** (74.8% vs. 57.3%, $p<0.001$).

Socially isolated respondents were more likely to self-report:

- **Good, fair, or poor life satisfaction** (82.6% vs. 43.3%, p<0.001)
- **Good, fair, or poor happiness** (82.4% vs. 41.3%, p<0.001)
- **Good, fair, or poor overall quality of life** (82.6% vs. 47.4%, p<0.001)
- **Good, fair, or poor wellness** (index) (80.1% vs. 36.6%, p<0.001)
- **Having a disability** (79.4% vs. 58.2%, p<0.001)
- **Having a chronic disease** (71.4% vs. 59.0%, p<0.001)
- **Having a disability and a chronic disease** (81.5% vs. 60.9%, p<0.001).

Socially isolated respondents had significantly lower odds of reporting very good or excellent SBH, including:

- Ability to remember or recall things (AOR = 0.521, 95% CI: 0.430–0.630, *p*<0.001)
- Ability to make decisions (AOR = 0.363, 95% CI: 0.284–0.464, *p*<0.001)
- Engage in problem solving (AOR = 0.447, 95% CI: 0.352–0.567, p<0.001)
- Ability to focus or pay attention (AOR = 0.434, 95% CI: 0.355–0.530, p<0.001)
- Ability to learn new things (AOR = 0.469, 95% CI: 0.380–0.579, p<0.001)
- Very good or excellent brain health index scores (AOR=0.488, 95% CI: 0.394–0.604, p<0.001)

Socially isolated respondents had significantly lower odds of reporting very good or excellent non-SBH, including:

- Life satisfaction (AOR=0.197, 95% CI: 0.159–0.242, $p<0.001$)
- Happiness (AOR=0.180, 95% CI: 0.147–0.222, $p<0.001$)
- Overall quality of life (AOR=0.235, 95% CI: 0.190–0.291, $p<0.001$)
- Wellness index scores (AOR=0.174, 95% CI: 0.141–0.213, $p<0.001$)

Socially isolated respondents had significantly higher odds of managing a disability or chronic disease:

Disability (AOR=2.307, 95% CI: 1.780–2.989, $p<0.001$)

Chronic disease (AOR=1.684, 95% CI: 1.369–2.071, $p<0.001$)

Disability AND chronic disease (AOR=2.376, 95% CI: 1.642–3.438, $p<0.001$)

Moderation Analysis

- Moderation analyses examined whether age moderates the relationship between social isolation and health outcomes.
- Adults aged 65–74: Interaction between social isolation and age was significantly associated with very good or excellent ability to remember or recall things (β = 0.526, 95% CI: 0.055–0.998, $p<0.05$) and very good or excellent overall quality of life (β = 0.576, 95% CI: 0.045–1.107, $p<0.05$).
- Adults aged 75+: Interaction between social isolation and age was significantly associated with rating brain health management as extremely or very important (β = −0.987, 95% CI: −1.714–−0.261, $p<0.01$).
- No interaction terms reached statistical significance across other outcomes.

Objective 3:

Analyze impacts of social isolation on brain health disparities among LGBTQ+ communities, and discuss evidence-based strategies for addressing these disparities

Social Isolation as a Brain Health Risk Factor in LGBTQ+ Aging Communities

Clinical Implications

- Routinely assess social isolation and loneliness as part of standard intake
  - Living arrangements, relationship loss history, caregiver availability
  - Quality (not just size) of social networks
- Incorporate isolation into case conceptualization alongside:
  - Depression, anxiety, and trauma exposure
  - Sleep disruption and fatigue
  - Chronic stress and minority stress burden
- Interpret subjective cognitive complaints within a biopsychosocial framework
  - Distinguish stress- and isolation-related inefficiencies from neurodegenerative processes
- Avoid over-pathologizing and look out for lifestyle and social network interventions

Policy Implications

Community-Driven Action: Empower LGBTQ+ Midlife and Older Adult Networks

- Meaningfully involve LGBTQ+ adults—especially from underrepresented subgroups—in LGBTQ-specific, age-specific, and generalized community programming
- Develop peer support networks, including those tailored for transgender, bisexual, rural, and minoritized LGBTQ+ adults
- Support cognitively stimulating, socially inclusive programming
- Promote intergenerational community programs to strengthen resilience and reduce isolation

National Resources

- **Alzheimer's Association**
  - https://www.alz.org/help-support/resources/alzheimers-and-dementia-resources-for-lgbtq-commun
  - 24/7 Helpline: (800) 272-3900
- **SAGE**
  - https://www.sageusa.org/your-rights-resources/
  - https://lgbtagingcenter.org/library/item/recommendations-for-supporting-lgbt-people-living-with-dementia/
- **PFLAG**
  - https://pflag.org/find-resources/
- **LGBT Caregiver Center**
  - https://lgbtqcaregivers.org/

References

Alzheimer's Association, SAGE: Advocacy & Services for LGBT Elders. Issues Brief: LGBT and Dementia.; 2016.

Brooks V. Minority Stress and Lesbian Women. Lexington Books; 1981.

Kessler RC, Andrews G, Colpe LJ, et al. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. Psychol Med. 2002;32(6):959-976. doi:10.1017/s003329170200607 4

Lampe NM, Akré EL, Barbee H, McKay T. LGBTQ+ identity social support and care access among LGBTQ+ caregivers of individuals living with mild cognitive impairment, Alzheimer's disease, and related dementias. Alzheimers Dement. 2025;21(5). doi:10.1002/alz.70188

Thank you for your engagement!

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