Exploring the Issue of Social Isolation Among Older Adults in Northeast Tennessee: A Brief Report

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Abstract

This study used a systems thinking perspective to explore socio-ecological risk factors and potential solutions to address social isolation among older adults aged 65 years and older in Northeast Tennessee. Four community health professionals working in the aging sector were individually interviewed in March and April 2024 to capture their insights into this issue. Thematic analysis was used to organize the findings according to three levels of the Social Ecological Model. Individual-level factors included health and well-being, skills and abilities, and motivation for engagement. Family support emerged as a common theme for interpersonal-level factors. Community-level factors comprised social/cultural influences, built environment infrastructure, and faith-based and non-governmental organizational engagement. The findings highlighted several risk factors for social isolation and leverage points to address the issue. This exploratory study can serve as a starting point for further investigation into the issue of social isolation among older adults in the region.

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Introduction

Social isolation is defined as "objectively having few social relationships, social roles, or group memberships, and infrequent social interactions" (Office of the U.S. Surgeon General (OSG), 2023. p. 7). In 2023, the U.S. Surgeon General released a landmark report calling social isolation a national epidemic that requires the same attention as smoking, obesity, and the substance use crisis (OSG, 2023). Individuals 65 years and older have the greatest risk of social isolation (Kannan & Veazie, 2023), with nearly one-quarter experiencing isolation and four percent experiencing severe isolation (National Academies of Sciences Engineering and Medicine (NASEM), 2020). Social isolation increases the risk of premature mortality by 29% and is linked to increased risk of falls, malnutrition, chronic disease, dementia, depression, functional decline, and decreased quality of life (Freedman & Nicolle, 2020; Holt-Lunstad, 2021; NASEM, 2020).

Risk factors for social isolation can be categorized into medical, social, or sociodemographic factors. Examples of risk factors include functional or cognitive impairment, living alone or far from family, living in a long-term care facility, and increased age (Freedman & Nicolle, 2020). Vision impairment is also a risk factor for severe social isolation (Almidani et al., 2024). Additionally, living in rural areas contributes to the risk of social isolation. Rural areas are unique because they often have a higher proportion of older adults who age in place and are disproportionately

burdened with age-related chronic disease compared to their urban counterparts (Hash et al. 2024). Most rural communities cannot support healthy aging due to inadequate resources and infrastructure, and geographic isolation (Hash et al. 2024; Henning-Smith et al., 2022; Pollard, Srygley & Jacobsen, 2023).

Tennessee ranks in the bottom tier (40th) for states with older adults at risk of social isolation, indicating these individuals are some of the highest-risk older adults in the country (Tennessee Commission on Aging and Disability, 2023). This is concerning because Tennesseans aged 60 years and older are the fastest-growing segment of the state's population, currently numbering 1.6 million people (The United Health Foundation, 2024). Additionally, older adults in Northeast Tennessee experience a higher chronic disease burden and poverty level, and have more limited access to transportation options compared to their counterparts across the state (Hash et al., 2024). These factors further exacerbate the risk of social isolation.

Given the urgency of addressing social isolation among older adults, it is important to frame the issue from the perspective of local experts in the aging sector who directly provide services and support to older adults. This study aimed to explore the barriers and potential solutions to social isolation in older adults in Northeast Tennessee. The study explored the issue through a systems thinking lens and applied the Social Ecological Model (SEM) framework to explore the individual, interpersonal, and community-level factors contributing to isolation and potential leverage points for intervention (McLeroy et al., 1988; Meadows, 2008). A systems thinking approach enables us to identify interconnections, understand parts, and ask "what if" questions about public health issues while constructing imaginative system re-design (Meadows, 2008). By applying systems thinking in conjunction with SEM, we can gain a better understanding of the drivers of social isolation at multiple levels and explore innovative approaches as potential solutions.

Methods

This study was developed for an academic assignment as part of a doctoral-level systems thinking course. Although the current study is based on a small sample size, it served as an exploratory approach to identify factors contributing to social isolation in older adults in Northeast Tennessee and possible solutions. The goal of the study was to gain preliminary insights from multi-sector views, yielding information-rich insights from diverse perspectives. In March and April of 2024, we recruited public health professionals in the aging sector to participate in individual semi-structured interviews aimed at exploring the issue of social isolation in the eight counties of Johnson, Sullivan, Carter, Washington, Unicoi, Greene, Hawkins, and Hancock, which make up Northeast Tennessee. A purposive sample of four subject matter experts working in the aging sector in Northeast Tennessee were recruited to participate. Three of the participants were professional contacts of the first author. The fourth participant was identified by a professional contact of the first author. Each participant had several years of experience addressing social isolation in their profession. Participant One was a researcher and caregiver. Participant Two oversaw social services for older people throughout the eight counties of Northeast Tennessee. Participant Three was a local senior community program director. Participant Four was a certified nursing assistant with more than 15 years of experience in skilled nursing and assisted living facilities.

We developed a semi-structured interview guide to explore their experiences and

observations regarding social isolation among older adults, potential contributing factors, their thoughts on addressing the issue, and recommendations for strategies to mitigate risk. The first author conducted semi-structured interviews via Zoom and recorded each session, which lasted between 25 to 85 minutes. The protocol was reviewed by the East Tennessee State University Institutional Review Board (IRB number c0424.9e), and informed consent was obtained from participants before the start of the interviews.

Analysis

The first author transcribed the interview recordings using Zoom and checked for accuracy against the original recordings. Two research members (AR and JLS) developed a list of *a priori* codes to explore contributing factors and potential strategies to address social isolation among older adults in the region. Next, they read the transcripts to familiarize themselves with the data. The two research team members then coded the transcripts independently and discussed any differences in coding. In the final step, AR and JLS manually analyzed the coded transcripts using Braun and Clarke's thematic analysis (Braun & Clarke, 2006) and used Microsoft Excel to manage the coded content. The Social Ecological Model was then selected as the framework to guide the organization of the codes and resultant themes. Applying the SEM framework, themes were organized by individual, interpersonal, and community levels of influence.

Results

Participant interviews centered on individual-level determinants within SEM, such as personal health and well-being, physical limitations, a lack of confidence about engaging in social activities, a lack of motivation for engagement, and how these factors contribute to isolation (Table 1). A common theme among the interviews was that older adults may feel restricted by their physical health. Participant Two talked about older adults in a fall prevention program, discussing their fear of falling as a barrier to leaving the house at times: "They don't get out a lot because of their fear of falling."

All four participants cited a lack of family support as a contributing factor on the interpersonal level. Three of the four participants also noted such life events as the death of a spouse, children moving away, or the loss of family or friends as contributing influences. Participant Four discussed the particularly challenging environment of residential care facilities. Although these individuals may be housed with many people, they experience limited socialization. Additionally, families sometimes leave the care of the older adult solely to the facility with minimal interaction on their part.

Contributing factors to social isolation at the community level were more complex and included social and cultural influences, built environment infrastructure, and faith-based (FBO) and non-governmental organizational (NGO) engagement. Three of the four participants cited various transportation issues affecting older adults who cannot drive themselves. Availability, access, cost, and quality were some of the logistical barriers related to transportation. Participant One described the challenge of socially isolated older adults who can no longer drive: "Their family may be unavailable or not even in this region, and then there's limited to no transportation access." Participants mentioned changes in how society views aging and related social norms in American culture. Participant One discussed their observation of rural communities moving away from the natural connectedness in farming communities to a more individualistic society: "We've lost some of

Table 1.
Major data themes and selected quotes regarding social isolation risk factors from study participants, organized using the Social-Ecological Model.

SEM Level	Major data themes	Select quotes
Individual	Health and well-being	"There was a lot of discussion about mobility issues, fall risk, and concerns about even just getting outside of their own home."
	Skills and abilities	"People tend to outlive their ability to drive by anywhere from 7 to 10 years." "They don't feel confident about going to activities in the community, even if it's something that they used to be a part of. They just lose that sense of purpose and sense of confidence and their ability to navigate those situations by their self."
	Motivation for engagement	"If they've had a fall or they've had a friend who's had a bad fall, you know, cause all of them, you know. If I fall and break my hip, I'm done." "They don't realize what all goes on at our senior centers, you know. And so sometimes just getting them."
Interpersonal	Family support	"Usually they (family) bring them and that's it. We don't see them anymore." "Once they become adapted to a long-term care facility, the patients seem to lose contact with all family." "So many of them live alone, you know. We even tell our volunteers that do our meal delivery routes. You know you may be the only person that they talk to all day long." "Their family may be unavailable or not even in this region."

Community	Social/cultural influence;	"So we've lost some of that like social fabric. And this is not unique to rural communities. This is really a phenomenon across the United States. And so I think that really, in terms of you know those deep social connections that people once had. You know, neighbors knowing neighbors. Neighbors supporting neighbors." "The very older population mindset of I don't want a handout." " Families are spread so far, and so they don't have that." "Older adults might need assistance, but they won't necessarily ask for it. You know it's not that they're embarrassed. It's maybe even that like it's not even they don't even see that as something that you do and so you just maintain on your own."
	Infrastructure	"Technology is a huge barrier to addressing social isolation." "We're not staffed enough to really socialize with them."

Table 2.
Major data themes and selected quotes regarding potential solutions to address social isolation.

SEM Level	Major data themes	Select quotes
Individual	Health and well-being	"I think intervening earlier, trying to establish healthy habits and opportunities for healthy habits and healthy lifestyles for our population is important, because that mitigates the development of the comorbidities, such as diabetes and neuropathy. Things like that, that might limit that person's mobility and increase their falls risk."
	Skills and abilities	"As like a preventative measure, I would say, just as before you get to the old age, I guess. Just make sure you have that connection with your community. Whether it be with a church or just some sort of organization."
	Motivation for engagement	"Activities that they were interested in rather than just telling us what types of activities. How about asking us what we would like?"
Interpersonal	Family support	"Just coming and having activities…It doesn't always have to be family. It could be anybody."
Community	Social/cultural influence	"Community involvement" "Take time out of your week to go visit someone you don't know, cause you might learn something. You might learn something that you never would have, if you wouldn't have met that person. Some of them have the best stories ever." "I think, that we need to make it more normal to go to a long-term care facility to see these people."
	Infrastructure	"I think transportation is a big key to that in terms of, you know, if you think of it like systems level solutions, I do think our region really needs to look seriously at that. We do have some options. But I think it's, you know, more of a piecemeal approach." "Educating the population about regional aging and what that looks like."

	FBO and NGO engagement	"Church can really play a significant role in offsetting some of this social isolation that we feel that we see in some of these populations."

Table 3.
Potential Strategies to Address Social Isolation Across Multiple Sectors

Suggested Multi-Sector Strategies for Reducing Social Isolation in Older Adults
• Healthcare professionals should screen older adults for social isolation risk factors and connect at-risk individuals to community resources (Smith et al., 2023). • Community leaders should work with older adults and experts to create age-friendly, inclusive environments. • Meal delivery staff might be key contact points for isolated seniors, offering opportunities to link them to mental health services, food banks, civic organizations, faith-based services, congregate dining, senior centers, and vision rehabilitation and independent living services for people who are blind/low vision and/or disabled. • Politicians should be educated on older adult issues so they can influence funding to be directed to relevant services. • Housing developers must consider older adults' physical and social needs, designing affordable and accessible housing options that support social engagement. • Transportation officials should plan accessible routes and stops that meet mobility restrictions, ensuring equitable community access. • Communities without public transportation could partner with civic and faith-based organizations to provide transportation options.

that social fabric." Participant Four commented, "The generations have changed. And now it's, let's take Mom or Dad. They'll be taken care of 24/7 in a long-term care facility, and we don't have to do it anymore."

The SEM was also used to frame possible solutions identified by participants (Table 2). At the individual level, fostering healthy habits and building resilience is important in preventing or at least delaying the development of health conditions in older adults that increase their risk of social isolation. Participant One commented, "I think we need to look upstream…try to intervene earlier, in terms of people's health, health risks."

On the interpersonal level, opportunities for engagement were cited as a potential solution. It was cited as important for families to have opportunities for engagement with older adults in residential facilities. Opportunities for older adults to engage with their neighbors and other older adults in the community were also cited as important for both older adults in residential facilities and community-dwelling older adults. Participant Four described the need for community involvement in long-term care centers: "Get our communities involved, get our kids more involved…we just need more community involvement."

At the community level, a lack of adequate infrastructure was highlighted. Participants cited the need for additional transportation options, expanding community programming such as friendly calls and intergenerational programs, and partnering with FBOs for outreach efforts as potential avenues for decreasing social isolation. Programs linking volunteers to socially vulnerable older adults were cited as a potential solution during the COVID-19 pandemic. Participant One shared their experience with one of these programs: "I was assigned two older adults. I have never met them, but I call them regularly … and we have developed a strong relationship. I think those (programs)…can yield a lot of good outcomes." Participant Three also discussed a recently developed neighbor-to-neighbor friendly calling program. FBOs and NGOs were mentioned as valuable resources for filling gaps in support for these individuals. Volunteers from these organizations may provide transportation, lead activities for older adults, or engage in other outreach activities such as partnering with long-term care facilities. Participants noted the importance of shifting responsibility from the individual to the community to achieve greater reach and engender positive social norms.

Discussion

Social isolation is a public health problem that warrants greater attention. Failing to address the issue will contribute to worsening health and lead to a lower quality of life (Freedman & Nicolle, 2020). Reducing the risk factors for isolation by screening all older adults and using early interventions for issues like fall prevention and chronic disease management could make a difference for those older adults by minimizing or preventing isolation.

A recent report by CNBC identified Tennessee as one of the worst states for overall quality of life with a grade of "F", indicating that many aging Tennesseans are already vulnerable (Cohn, 2025). To address this vulnerability, including heightened risk of social isolation, the Tennessee Department of Disability and Aging is leading efforts to develop a multi-year plan to support Tennesseans so they can "age with dignity, purpose, and connection" (Tennessee Department of Health, 2026a). Similarly, the Tennessee Department of Health, Office of Healthy Aging, has launched initiatives designed to build stronger, more resilient communities that can foster engagement and connection across the lifespan (Tennessee

Department of Health, 2026b). The Multi-Sector Plan for Aging Data Dashboard, a joint effort between the Office of Healthy Aging and the Center for Rural Health and Research at East Tennessee State University, complements these efforts by providing policymakers and local communities with access to statewide data on social connection and isolation and related factors (ETSU Center for Rural Health and Research, 2026). These initiatives are designed to address the multi-factorial causes of social isolation in the state (ETSU Center for Rural Health and Research, 2026).

This study aimed to gain a preliminary understanding of social isolation among older adults, particularly in Northeast Tennessee, from individuals working in different sectors. Participants' comments reinforced many of the previously identified risk factors for social isolation (Freedman & Nicolle, 2020). Because opportunities for connection and engagement are not structurally embedded in the design of most communities, addressing the contributing factors for social isolation may be challenging. Individual-level factors may require more personalized interventions to create opportunities for social engagement and address the root causes of social isolation (e.g., finances, disease management, limited social support). Other contributing factors result from a lack of community resources or infrastructure. Interventions addressing these factors will benefit from using a multi-sector, systematic approach (Smith et al., 2023). Given that many of the contributing factors to social isolation are complex and engineered by society, it seems logical to apply a systems level approach to create possible solutions to the issue. By employing systems level approaches, communities can not only design changes that address the issue of social isolation in older adults, but those changes can also positively impact the greater community.

Holt-Lundstad and colleagues developed the SOCIAL Framework, building upon the SEM to include cross-sector engagement and cross-cutting applications (Holt-Lunstad, 2024). Smith and colleagues also cite the need for systems level or multi-sector approaches to alleviate the issue of social isolation, commenting that many of the opportunities to address social isolation also build community resilience and benefit the whole community, not just older adults (Smith et al., 2023). Holt-Lunstad and colleagues emphasize the need for scientific leadership and collaboration to advance efforts aimed at closing the gap between program planning and implementation to reduce social disconnection (Holt-Lunstad et al., 2025). Table 3 contains practical examples of potential strategies to engage multiple sectors in reducing social isolation and building community resilience.

Some of the more unique responses from participants offer additional avenues to explore regarding society's approach to aging. Participant One emphasized the need for better screenings to identify those at risk of social isolation. This would be a proactive approach to identify those at risk and take steps early to minimize their chances of isolation. Participant Two discussed the impact that FBOs can have on at-risk seniors. Many FBOs already have resources to help reach their members who may be at risk or experiencing social isolation. These efforts could be expanded to involve more of their community, enhancing the community's resilience.

The study's small sample size is a limitation. However, the study was designed to examine the issue of social isolation from the point of view of experts working in different sectors, representing diverse systems perspectives. Given this fundamental purpose and the exploratory nature of the study, these findings provide information-rich context on social isolation among older

adults in Northeast Tennessee. Research suggests that small sample sizes can yield the same codes and themes as larger qualitative studies (Diane & Casey, 2018). Moreover, other published studies have used similar sample sizes (Marinaci, Carpinelli & Savarese, 2021; Marshall & Dugan, 2022). Community partners and local leaders can use these findings to inform subsequent phases of research conducted on a larger scale.

Implications for Health Behavior Research

Americans are living longer than ever before. As such, older adult health and well-being will continue to surface as a key priority in local, state, and national conversations. The COVID-19 pandemic illuminated the deleterious effects of social isolation, particularly for older adults. Issues like social isolation are "wicked" in nature, resulting from the interplay of individual, social, and environmental conditions (Finegood, 2021). Therefore, a systems perspective can serve to identify the interactions among multiple ecological levels of influence and to pinpoint various leverage points in the system for intervention (Holt-Lunstad, 2024). This approach can lead to creative solutions and the identification of partnerships that were not previously considered (Meadows, 2008).

At the most basic level, older adults need more options and opportunities for social engagement. Addressing complex, structural barriers is also important. For example, engineering age-friendly environments in community design and uprooting deeply engrained societal norms that reinforce ageist beliefs will require a sustained, prolonged approach. Communities can proactively confront this issue by leveraging the Surgeon General's recommendations for fostering greater social connection throughout the lifespan, thereby reinforcing the significance and benefits of connection (OSG, 2023).

Further research about social isolation can include gathering insights from a broader array of sectors, caregivers of aging adults, and directly asking older adults about their perceptions and challenges with social isolation. Exploring insights and challenges from other sectors may reveal points of intervention that not only address factors contributing to social isolation but also improve community infrastructure. Caregivers of aging adults may also experience some degree of social isolation, so this group may offer unique perspectives and observations. Including the perspectives of older adults identified as socially isolated would be particularly beneficial, as it could provide key insights from those directly affected and identify potential solutions that may meet their needs.

Discussion Questions:

What other community resources can help address social isolation in older adults in rural communities?

How might community members use grassroots efforts to raise awareness and bring about change for this issue?

What are examples of public policies that may help alleviate social isolation in older adults?

Conflict of Interest Statement

The authors have no conflicts to disclose.

Study Approval Statement

The study protocol was reviewed and approved by the East Tennessee State University Institutional Review Board (IRB number c0424.9e).

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