

Social Isolation and Healthcare Utilization in Older Adults Living With Dementia and Mild Cognitive Impairment in the United States

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Abstract

Background and Objectives: Social isolation is commonly experienced by older people and is associated with adverse health outcomes. Little is known about the influence of social isolation on the risk of acute care utilization among people living with mild cognitive impairment (MCI) or dementia. Our objective was to investigate the impact of social isolation on the risk of death, hospitalization, and emergency department (ED) use among people living with MCI or dementia who are followed in our Community Internal Medicine practice at Mayo Clinic, Rochester, Minnesota.

Research Design and Methods: We included people living with MCI or dementia, 55 years and older, who had a clinic visit between June 1, 2019, and June 30, 2021, and who had completed questions about social connections. The risk of death, hospitalization, and ED use was examined by levels of social connection (socially isolated, moderately isolated, moderately integrated, or socially integrated).

Results: Of 2,320 people included (1,010 with MCI and 1,310 with dementia), 455 (19.6%) were classified as socially isolated and 591 (25.5%) were moderately isolated. Compared with those who were socially integrated, people who were socially isolated were at higher risk of death, hospitalization, and ED visits ($p < .001$).

Discussion and Implications: Social isolation is associated with an increased risk of acute health care utilization and death in people living with MCI or dementia. Interventions to address social isolation in this population are needed.

Keywords: Cognitive disorders, Emergency department, Hospitalization, Social connection

Translational Significance: Social isolation is common among older adults, especially those living with dementia. Understanding the link between social isolation and acute health outcomes among people living with mild cognitive impairment or dementia is important as it may offer an opportunity for intervention. In this study, social isolation is associated with a significantly greater risk of emergency department use, hospitalization, and death. These findings highlight the importance of promoting and maintaining social connections among older adults living with mild cognitive impairment or dementia.

Background and Objectives

Social isolation, the objective state of having few social relationships or infrequent social contact, is experienced by approximately one in four older adults in the United States (National Academies of Sciences, Engineering, and Medicine, 2020). It is common in those living with chronic illness (Steptoe et al., 2013). It is especially common among older adults living with dementia and their care partners (Kotwal et al., 2024; Kovaleva et al., 2018). The importance of social

connection was highlighted by the U.S. Surgeon General in 2023 (Surgeon General of the United States, 2023). Although social connection encompasses the structure, function, and quality of an individual's relationships and interactions, in research, this is often quantified in terms of measuring social isolation or loneliness (Surgeon General of the United States, 2023). The consequences of social isolation are significant. In non-dementia-specific cohorts, social isolation has been shown to be associated with worse health outcomes including an increased risk for cardiovascular disease and stroke (Cene

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et al., 2022; Valtorta et al., 2016), worse mortality outcomes (Holt-Lunstad et al., 2015; Imamura et al., 2024), depression (Teo et al., 2015), and cognitive decline (Joyce et al., 2021). Additionally, social isolation has been shown to increase the risk of hospital readmission but with mixed effects on risk of hospitalization and emergency department (ED) use (Chamberlain et al., 2022; Longman et al., 2012; Mosen et al., 2021; Rodríguez-Artalejo et al., 2006; Valtorta et al., 2018). In contrast, having a social connection structure has been shown to have positive health outcomes including lower risk of mild cognitive impairment (MCI) and dementia, lower mortality risk, and lower risk of a prolonged nursing home stay for older adults (Livingston et al., 2020; Mahalingam et al., 2023; Shah et al., 2022).

The relationship between social isolation and dementia is an intricate one. To date, much of the research in the area of social isolation and dementia explores its association with the risk of developing dementia in later life and the protective effect of social contact on risk of later dementia is well accepted (Livingston et al., 2020). However, the onset and progression of cognitive impairment itself often brings withdrawal from social circles and employment (Kotwal et al., 2016, 2024). The subsequent reduction in social connections can have a negative impact on the psychological health of people living with dementia, and their care partner (Hwang et al., 2022; Maharani et al., 2022). In recent years, this has been well described in the context of the imposed social isolation associated with the COVID pandemic (Manca et al., 2020; Numbers & Brodaty, 2021; Wei et al., 2023). In contrast to non-dementia-specific populations, much less is known about how social isolation affects acute healthcare outcomes specifically among people living with MCI or dementia.

In this observational study, we assessed the association between social isolation and acute outcomes, including death, hospitalizations, and ED use in a population of older adults living with MCI or dementia. This is an important relationship to understand as people living with dementia frequently need and use acute care. They tend to have more, and longer, hospital stays than people living without dementia (Alzheimer's Association, 2019). Interventions to help reduce the need for acute care are needed but are not possible until we better understand how potentially modifiable factors, such as social isolation, influence these outcomes.

Research Design and Methods

Study Design and Study Population

A detailed description of our study design has been described previously (Bartley, Baer-Benson, et al., 2023). In brief, we included people with a diagnosis of MCI or dementia, identified by ICD 9 and 10 codes (Nori et al., 2019), who were age 55 years and older and followed by Community Internal Medicine at Mayo Clinic, Rochester, Minnesota. We only included those who had at least one clinic visit between June 1, 2019, and June 30, 2021, as this period coincided with the launch of a social determinants of health questionnaire into routine clinical care that included questions about social connections. These questions are captured from all patients or their proxies at clinic visits annually via the online patient portal or via a tablet provided at the time of the clinic visit. Answers are then shared with providers and summarized in the electronic health record, with those reporting concerns referred to social services or provided with information on

local resources (Bartley, Baer-Benson, et al., 2023). Only those who had authorized their medical records for research were included. The study protocol was approved by the Institutional Review Board and the study met the institution's guidelines for protection of human subjects concerning safety and privacy (ID: 21-005173).

Data Sources and Variables

Demographic and clinical data (age, sex, race, ethnicity, marital status, location of residence, living arrangement, and body mass index) were extracted from the electronic health record. Location of residence was classified based on Rural-Urban Commuting Areas Codes, using ZIP codes to categorize area of residence into isolated, small rural, large rural, or urban (United States Department of Agriculture). We used the Charlson Comorbidity Index to describe comorbid burden using relevant diagnoses over 2 years before the date of dementia or MCI diagnosis (Charlson et al., 1987).

Outcomes

Hospitalizations, ED visits, and mortality outcomes were extracted using the Rochester Epidemiology Project (St. Sauver, Grossardt, Yawn, et al., 2012). This electronic health records linkage system allows for health services utilization data to be compiled across the different hospitals serving our catchment area.

Social Connection

Social connection was assessed by a series of questions exploring the number and quality of social interactions based on a previously validated index (Berkman & Syme, 1979; Ford et al., 2006; Pantell et al., 2013; Rajai et al., 2024). People were asked how often they meet with friends or relatives in a week, how often they attend church or religious services, if they are members of clubs or organizations and if so, how often meetings are attended. Finally, they are asked questions about relationship status (married, widowed, divorced, separated, and never married). One point is given for each of the following: if someone is married or living with a partner, has three or more interactions per week with others, attends religious services at least once a year and has club membership/participation in an organization at least once a year. A score of 0 is given for a negative response, so total scores range between 0 and 4. A total score of 4 points is classified as "socially integrated," 3 points "moderately integrated," 2 points "moderately isolated" and 0–1 point "socially isolated" (Bartley, Baer-Benson, et al., 2023; Bartley, St. Sauver, et al., 2023; Ford et al., 2006; Pantell et al., 2013; Rajai et al., 2024).

Statistical Analysis

All demographic characteristics were grouped by four levels of social connection (socially isolated, moderately isolated, moderately integrated, or socially integrated). Characteristics were compared using χ^2 tests or Fisher's exact tests (for race, ethnicity, and diagnosis). Outcomes of number of hospitalizations, ED visits, and vital status at 1 year after completion of the questionnaire were also grouped and analyzed by levels of social connection. The risk of hospitalization and ED visit was calculated for each group using quasi-Poisson regression and the estimates presented as rate ratios (95% confidence interval, CI). For death, proportional hazards regression was used, and the estimates presented as hazard ratios (95% CI). In adjusted models, we first adjusted for demographic

characteristics in model 1 (age, sex, White, and non-Hispanic vs other). Model 2 adjusted for demographic characteristics and Charlson score. Model 3 adjusted for demographics, Charlson score, marital status, living arrangement (nursing home/assisted living vs other), and body mass index. Since the COVID pandemic started during the study period, a set of supplemental analyses were performed to assess whether the association between social connection and acute care utilization changed over the study period. For these analyses, a numeric time variable was created for each patient based on the month that they entered the study cohort. Initial analyses were performed for both hospitalizations and ED visits, with enrollment month modeled using a restricted cubic spline. From these analyses, no evidence of nonlinearity was detected. Subsequent analyses were then performed with social connection and enrollment month included as explanatory variables. To assess whether the association between social connection and acute care utilization changed over the study period, additional analyses were performed, which included the social connection-by-enrollment month interaction effect; p values $< .05$ were considered significant. Analyses were performed in SAS version 9.4 (SAS Institute Inc.).

Results

Demographic Characteristics

Our sample included a total of 2,320 older people who had completed questions on social connection, of whom 1,010 had a diagnosis of MCI and 1,310 had a diagnosis of dementia. Approximately half (54.6%) were female and 53.8% were married or living as married. Most (62.2%) were living in urban areas and not in care facilities. Demographic characteristics are included in [Table 1](#). At 1-year follow-up, 2,070 (89%) were alive, 211 (9%) were dead, and the remaining 39 people (1.7%) were lost to follow-up ([Table 2](#)).

Social Isolation

We had 455 (19.6%) people classified as socially isolated and 591 (25.5%) were moderately isolated. People who were socially isolated were more likely to be older, female, not married/living as married, have dementia, and have more comorbid burden compared with those who were not socially isolated ($p < .001$; [Table 1](#)). In addition, there were statistically significant associations between differences in living arrangement and level of social isolation, but the differences were small and not in a consistent direction (socially integrated: 10% lived in assisted living or nursing home, moderately integrated: 17%, moderately isolated: 16%, and isolated: 14%; [Table 1](#)).

Social Isolation and Outcomes

Hospitalization and ED visit rates were higher in those who were socially isolated compared with those who were socially integrated. The rate of hospitalization and ED visits per 100 person-years, respectively, for the socially isolated group was 68.5 (95% CI: 55.5, 84.7) and 110.3 (95% CI: 92.9, 131.1), $p < .01$ compared with 40.0 (95% CI: 31.1, 51.4) and 66.8 (95% CI: 54.7, 81.6) for those who were socially integrated ([Table 2](#)).

In adjusted models shown in [Table 3](#), the risk of death, hospitalization, and ED use increased with increasing levels of social isolation ([Table 3](#)). In particular, the risk of all three outcomes was significantly higher among those who

were socially isolated when compared with those who were socially integrated, even after adjusting for clinical and socio-demographic variables. The hazard ratio for death was 2.32 (95% CI: 1.44, 3.75) and rate ratio for hospitalizations and ED visits, respectively, were 1.54 (95% CI: 1.15, 2.07) and 1.5 (95% CI: 1.17, 1.91).

From the supplemental analyses, which assessed whether there were changes in acute care utilization over time, there was evidence of a significant increase over the study period for both hospitalizations (rate ratio = 1.012, 95% CI: 1.002 to 1.022 per month, $p = .015$) and ED visits (rate ratio = 1.009, 95% CI: 1.001 to 1.016 per month, $p = .026$). However, from analyses which included the social connection-by-enrollment month interaction term, no significant interactions were detected (hospitalizations: interaction $p = .462$; ED visits: interaction $p = .696$), indicating that the association of social connection with health care utilization did not change significantly over the study period.

Discussion and Implications

In a sample of older adults living with MCI or dementia, those who were socially isolated had a risk of death that was approximately double that of those who were socially integrated and risks of hospitalization and ED visits that were 1.5 times that of those who were socially integrated. These findings emphasize the important impact of social isolation on health outcomes for people living with MCI and dementia at a time when our health system is experiencing high rates of hospitalizations and ED visits among people living with dementia ([Bynum et al., 2004](#); [Gerlach et al., 2023](#); [Phelan et al., 2012](#)).

Our findings specific to social isolation and acute care use in this population are novel but not surprising. Although there is a lack of prior studies to allow for a direct comparison in dementia populations, the risk of mortality and negative physical and psychological health outcomes associated with social isolation already well described in older populations is in keeping with our results ([Holt-Lunstad et al., 2015](#); [Joyce et al., 2021](#); [Rajai et al., 2024](#); [Simone et al., 2023](#); [Teo et al., 2015](#)). Specific to social isolation and healthcare utilization among older adults in general, there is mixed existing data depending on the populations and measures studied. A prior systematic review including studies of older adults reported a strong association between social relationships and hospital readmission, although less so for hospitalization and ED use ([Valtorta et al., 2018](#)). A more recent study of Medicare beneficiaries showed that self-reported social isolation was associated with future hospitalization and ED visits ([Mosen et al., 2021](#)), although in supportive living facilities in Canada, loneliness but not social isolation increased the risk of an unplanned ED visit ([Chamberlain et al., 2022](#)). In contrast, older adults in Japan who were socially isolated and homebound were overall less likely to utilize ongoing medical care but had higher outpatient care expenditure and less inpatient care in the last year of life ([Mitsutake et al., 2021](#)). This may suggest a delay in accessing ongoing care and supports among people who are socially isolated and a tendency to delay care until things have deteriorated significantly. Although these studies were not specific to dementia populations, this could also offer a potential explanation for the higher rates of acute care use seen in our population that is worth exploring further as it may offer scope for intervention to improve ongoing

Table 1. Demographic Characteristics According to Level of Social Connection

Characteristic*	Socially integrated (<i>n</i> = 514)	Moderately integrated (<i>n</i> = 760)	Moderately isolated (<i>n</i> = 591)	Socially isolated (<i>n</i> = 455)	<i>p</i> Value
Age (years)					<.001
55 to 59	21 (4%)	26 (3%)	30 (5%)	24 (5%)	
60 to 69	87 (17%)	119 (16%)	88 (15%)	85 (19%)	
70 to 79	229 (45%)	243 (32%)	176 (30%)	141 (31%)	
80 to 89	162 (32%)	285 (38%)	215 (36%)	144 (32%)	
90 or more	15 (3%)	87 (11%)	82 (14%)	61 (13%)	
Sex					<.001
Men	292 (57%)	312 (41%)	245 (41%)	205 (45%)	
Women	222 (43%)	448 (59%)	346 (59%)	250 (55%)	
Race					.09
White	505 (99%)	750 (99%)	577 (98%)	437 (97%)	
Black	1 (0%)	2 (0%)	4 (1%)	5 (1%)	
Asian	0 (0%)	5 (1%)	3 (1%)	5 (1%)	
Other	6 (1%)	2 (0%)	6 (1%)	5 (1%)	
Ethnicity					.18
Hispanic or Latino	5 (1%)	5 (1%)	11 (2%)	4 (1%)	
Not Hispanic or Latino	507 (99%)	750 (99%)	577 (98%)	447 (99%)	
Marital status					<.001
Married/living as married	514 (100%)	377 (50%)	261 (44%)	97 (21%)	
Widowed	0 (0%)	251 (33%)	235 (40%)	190 (42%)	
Separated/Divorced	0 (0%)	79 (10%)	56 (9%)	104 (23%)	
Single	0 (0%)	53 (7%)	39 (7%)	64 (14%)	
Location of residence					.11
Isolated	56 (11%)	82 (11%)	37 (6%)	43 (9%)	
Small rural	51 (10%)	67 (9%)	54 (9%)	38 (8%)	
Large rural	110 (21%)	135 (18%)	115 (19%)	89 (20%)	
Urban	297 (58%)	476 (63%)	385 (65%)	285 (63%)	
Living arrangement					<.001
Nursing home	2 (0%)	9 (1%)	6 (1%)	12 (3%)	
Assisted living facility	52 (10%)	123 (16%)	91 (15%)	51 (11%)	
Other	460 (89%)	628 (83%)	494 (84%)	392 (86%)	
Body mass index (kg/m ²)					.35
Underweight (<18.5)	8 (2%)	11 (1%)	11 (2%)	12 (3%)	
Normal (18.5 ≤ 25.0)	122 (24%)	197 (26%)	150 (26%)	113 (26%)	
Overweight (25.0 ≤ 30.0)	214 (42%)	263 (35%)	202 (36%)	155 (36%)	
Obese (30.0+)	167 (33%)	279 (37%)	205 (36%)	156 (36%)	
Diagnosis					<.001
MCI	276 (54%)	343 (45%)	219 (37%)	172 (38%)	
Dementia	238 (46%)	417 (55%)	372 (63%)	283 (62%)	
Charlson comorbidity score					<.001
Median (IQR)	3.5 (2.0, 6.0)	4.0 (2.0, 6.0)	4.0 (2.0, 7.0)	5.0 (2.0, 8.0)	
0	41 (8%)	44 (6%)	21 (4%)	15 (3%)	
1 to 3	216 (42%)	304 (40%)	234 (40%)	162 (36%)	
4 to 6	131 (25%)	224 (29%)	177 (30%)	134 (29%)	
7 or more	126 (25%)	188 (25%)	159 (27%)	144 (32%)	

Notes: MCI = mild cognitive impairment; IQR = interquartile range.

*Due to missing data, the total number of patients within categories for a given characteristic may be less than the column total.

chronic care for people living with dementia who are socially isolated.

Social isolation is very common among people living with MCI and dementia. In our sample, approximately 20%

met criteria for being “socially isolated” and another 25% were “moderately isolated.” This compares to national rates of almost one in four U.S. older adults considered socially isolated ([National Academies of Sciences, Engineering, and](#)

Table 2. Duration of Follow-up and Health Care Utilization According to Level of Social Connection

Characteristic	Socially integrated (n = 514)	Moderately integrated (n = 760)	Moderately isolated (n = 591)	Socially isolated (n = 455)	p Value
Vital status at 1 year					
Alive	484 (94%)	683 (90%)	527 (89%)	376 (83%)	
Dead	24 (5%)	66 (9%)	53 (9%)	68 (15%)	
Lost to follow-up	6 (1%)	11 (1%)	11 (2%)	11 (2%)	
Days of follow-up through 1 year					
Mean (SD)	352.9 (54.3)	344.8 (69.7)	342.8 (71.6)	329.8 (91.2)	
Median (min, max)	365 (13, 365)	365 (1, 365)	365 (3, 365)	365 (4, 365)	
Days at risk for hospitalization					
Mean (SD)	349.7 (56.0)	340.3 (71.5)	337.8 (72.8)	324.3 (92.2)	
Median (min, max)	365 (4, 365)	365 (1, 365)	365 (2, 365)	363 (2, 365)	
Number of hospitalizations in 1 year					
Mean (SD)	0.4 (0.9)	0.5 (1.0)	0.5 (1.1)	0.6 (1.2)	
Median (min, max)	0 (0, 8)	0 (0, 9)	0 (0, 14)	0 (0, 9)	
Number of ED visits in 1 year					
Mean (SD)	0.6 (1.1)	0.9 (1.7)	0.9 (1.6)	1.0 (1.8)	
Median (min, max)	0 (0, 8)	0 (0, 14)	0 (0, 14)	0 (0, 16)	
Total person-years at risk	492.5	708.6	547.0	404.2	
Hospitalizations					
Total number	197	359	320	277	
Rate per 100 person-years ^a	40.0 (31.1, 51.4)	50.7 (42.1, 61.0)	58.5 (48.1, 71.2)	68.5 (55.5, 84.7)	.009
ED visits					
Total number	329	689	546	446	
Rate per 100 person-years ^a	66.8 (54.7, 81.6)	97.2 (86.7, 111.7)	99.8 (85.4, 116.6)	110.3 (92.9, 131.1)	<.001

Notes: ED = emergency department; SD = standard deviation.
^aQuasi-Poisson regression analyses were used to account for overdispersion.

Medicine, 2020) and reflects the higher risk for social isolation among people living with dementia or MCI. Our finding that people living with a diagnosis of dementia are at higher risk of social isolation compared to those living with MCI is in keeping with the known narrowing of social connections that happens with worsening cognition (Kotwal et al., 2016), but also offers up an opportunity for healthcare providers and policymakers as a time to intervene.

The high rates of social isolation and the increasing data showing the adverse effects of such isolation show that maintaining and improving social connection should be a realistic public health priority. Our finding of the increasing risk of death, hospitalization, and ED use with increasing levels of social isolation is important as we consider potential solutions for policymakers. It appears even some level of social connection is helpful. Government-led interventions to promote social gatherings have brought positive cognitive and long-term care utilization outcomes in other jurisdictions (Nakagomi et al., 2023; Saito et al., 2019). Social prescribing programs that facilitate primary care providers connecting patients with nonmedical services and community resources for older adults have also shown promise in increasing social interactions (Paquet et al., 2023). Additionally, although the COVID pandemic brought about increased social isolation, it simultaneously created an impetus to increase the use of technology to stay connected with older people living with dementia that should continue. For example, facilitated

remote visits with families to care home residents with dementia were shown to be helpful to maintain connections for both the person living with dementia and their visitor (Barsan et al., 2024) and are now more commonly seen in care home settings. Adapting these and other social connection interventions to the individual cognitive level or community needs has the potential to promote social connection, and as a result, influence the negative downstream effects of social isolation.

Strengths and Limitations

We acknowledge that our study has strengths and limitations. First, we are relying on data collected as part of a social determinants of health questionnaire. We do not know if the person completed the questions themselves or if it was their healthcare proxy, which could in turn influence responses. The questionnaire is not specifically validated for people living with dementia or MCI, although the social connection questions have been previously used successfully in populations that included older people (Pantell et al., 2013). Second, we do not have information on dementia stage or other psychosocial factors, which may influence an individual's ability to participate in social interaction. Third, our study population is predominantly White and so our findings may not be widely applicable (St. Sauver, Grossardt, Leibson, et al., 2012). Finally, it is worth noting that our data collection time period did overlap with the start of the COVID-19 pandemic

Table 3. Risk of Outcomes of Death, Hospitalization and ED Use by Level of Social Connection^a

Outcome	Socially integrated (<i>n</i> = 514)	Moderately integrated (<i>n</i> = 760)	Moderately isolated (<i>n</i> = 591)	Socially isolated (<i>n</i> = 455)
Death				
Unadjusted	1.00 (referent)	1.90 (1.19, 3.03)	1.97 (1.22, 3.19)	3.41 (2.14, 5.42)
Adjusted Model 1 ^b	1.00 (referent)	1.50 (0.93, 2.41)	1.50 (0.92, 2.45)	2.64 (1.64, 4.27)
Adjusted Model 2 ^c	1.00 (referent)	1.34 (0.83, 2.16)	1.39 (0.85, 2.27)	2.32 (1.44, 3.74)
Adjusted Model 3 ^d	1.00 (referent)	1.32 (0.82, 2.14)	1.40 (0.85, 2.31)	2.32 (1.44, 3.75)
Hospitalization				
Unadjusted	1.00 (referent)	1.27 (0.93, 1.73)	1.46 (1.06, 2.01)	1.71 (1.23, 2.38)
Adjusted Model 1 ^b	1.00 (referent)	1.30 (0.95, 1.77)	1.50 (1.09, 2.07)	1.77 (1.27, 2.46)
Adjusted Model 2 ^c	1.00 (referent)	1.25 (0.94, 1.65)	1.41 (1.06, 1.87)	1.51 (1.12, 2.02)
Adjusted Model 3 ^d	1.00 (referent)	1.24 (0.94, 1.64)	1.43 (1.07, 1.90)	1.54 (1.15, 2.07)
ED visits				
Unadjusted	1.00 (referent)	1.46 (1.14, 1.86)	1.49 (1.16, 1.93)	1.65 (1.27, 2.15)
Adjusted Model 1 ^b	1.00 (referent)	1.44 (1.13, 1.84)	1.47 (1.14, 1.90)	1.65 (1.26, 2.15)
Adjusted Model 2 ^c	1.00 (referent)	1.39 (1.11, 1.75)	1.40 (1.10, 1.77)	1.46 (1.14, 1.86)
Adjusted Model 3 ^d	1.00 (referent)	1.38 (1.10, 1.73)	1.40 (1.11, 1.78)	1.50 (1.17, 1.91)

Notes: ED = emergency department.

^aProportional hazards regression was used for the death analysis. The estimates are hazard ratios (95% confidence interval, CI). For hospitalizations and ED visits, quasi-Poisson regression was used. The estimates presented are rate ratios (95% CI).

^bAdjusted for demographic characteristics (age, sex, White and non-Hispanic vs other). Due to missing data, *n* = 2,303 (99.3%) patients are included (511 socially integrated, 755 moderately integrated, 587 moderately isolated, and 450 socially isolated).

^cAdjusted for above demographic characteristics and Charlson score. Due to missing data, *n* = 2,303 (99.3%) patients are included (511 socially integrated, 755 moderately integrated, 587 moderately isolated, and 450 socially isolated).

^dAdjusted for demographics, Charlson score, marital status, living arrangement (nursing home/assisted living vs other) and body mass index. Due to missing data, *n* = 2,248 (96.9%) patients are included (508 socially integrated, 745 moderately integrated, 564 moderately isolated, and 431 socially isolated).

and the associated restrictions, which exacerbated social isolation, especially among older people (Simone et al., 2023). To investigate this further, we performed a supplemental analysis of this time period. Our results relating to social isolation and risk of acute care use were consistent with the overall results, and we did not detect significant interactions between social connection responses and month of enrollment (hospitalization: interaction $p = .462$; ED visits: interaction $p = .696$). These data suggest that associations between social connection and healthcare utilization did not change significantly over the study period. However, we believe our findings offer a valuable reflection on life in the community for our patients living with MCI or dementia. It is important to note that our sample included people from across urban and rural areas, where isolation rates were equally as prevalent (Bartley, Baer-Benson, et al., 2023). Also, our sample mostly encompassed community-dwelling people rather than people in care facilities, where social opportunities may already be more limited and so would have influenced results (Casey et al., 2015). Furthermore, we know from prior examination of our social determinants of health questionnaire responses that gaps in transportation needs were not present in most of the study population (Bartley, Baer-Benson, et al., 2023), suggesting there are other factors, which influence the ability to develop or maintain social connection in this population. We believe this study emphasizes the opportunity and responsibility we have to improve social connection among our patients living with MCI and dementia given the significant health outcomes.

Conclusion

Our study delivers two important findings. Firstly, we highlight that social isolation is very common among people

living with MCI and dementia. Secondly, people living with MCI or dementia who are socially isolated are at greater risk of acute care utilization and death. As we are seeing growing numbers of people living with dementia attending EDs and being hospitalized, addressing modifiable factors, such as social isolation, has the potential to affect this high level of acute care utilization, and ultimately improve the quality of life for people living with dementia and their care partners.

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Conflict of Interest

None.

Data Availability

Data are stored on a secure database accessed only by the research team. Due to IRB restrictions, raw data cannot be shared. This study was not preregistered.

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