



Gender Differences in Social Isolation and Social Support among Rural Residents

Carrie Henning-Smith, PhD

Alexandra Ecklund, MPH

Ira Moscovice, PhD

Katy Kozhimannil, PhD

Key Findings

- Social isolation is an important health risk factor that may differ among men and women, because of differences in life expectancy, community participation, or household dynamics.
- Lack of social contact is prevalent among older rural residents—more than one-fourth of men and nearly one-fifth of women reported that they socialized with others less than once a month.
- In some ways, women were more socially connected—older rural women were more likely than men to go to church or another place of worship on a weekly basis (53% vs. 43%).
- Men were less likely than women to say that they can open up to family (77% vs. 90%) or friends (63% vs. 74%).
- Women were more likely than men to report feeling left out some of the time or often (36% vs. 27%).

Purpose

Social isolation is an urgent public health problem, and there are demonstrated differences in social isolation by gender. However, little published research describes social isolation in rural areas specifically. This policy brief uses nationally-representative data to identify gender differences in social isolation and social support among older rural residents and provides ways to reduce social isolation and improve associated health outcomes in rural communities.

Background and Policy Context

Social isolation, including social disconnectedness (e.g., limited contact with others) and perceived isolation (e.g., loneliness),¹ is increasingly recognized as an important determinant of health, especially in the context of an increase in “deaths of despair,” which have had a disproportionate impact on rural residents.²⁻⁵ In fact, research has shown that social isolation, loneliness, and limited contact with others have a direct impact on mortality risk and poorer health outcomes.^{2,6} Social isolation is also associated with higher health care costs, including an estimated \$6.7 billion in Medicare spending annually.⁷ And, having a greater sense of social cohesiveness, including interpersonal trust, is associated with better health outcomes for individuals and communities.⁸

Social isolation and loneliness can occur at any age, but older adults face a higher risk, as they are more likely than younger and middle-aged adults to experience significant losses of spouses, family members, and friends, and to experience changes in health that impact their daily activities. All of these are significant risk factors for social isolation and loneliness, and for the associated poorer health outcomes.⁹⁻¹¹

Prior research has demonstrated differences by gender in social isolation, loneliness, social relationships, and the association between isolation and quality of life.¹²⁻¹⁴ For example, women are more likely than men to have strong social networks⁹ and men face a higher risk of mortality related to social isolation than women.¹⁵ Meanwhile, women may be more susceptible to the contagion effect of loneliness.¹⁶ However, little is known about how social isolation differs by gender among rural residents specifically.

There is limited research on rural-urban differences in social isolation, with some indication that rural residents are more likely to know their neighbors, but are no less likely to be lonely than urban residents.¹⁷ Still, given that rural areas are markedly different than urban areas in their demographic and socio-economic composition, as well as in their health care landscape,^{18,19} research on social isolation specific to rural areas is necessary to understand connections between people within the rural

context. However, such research is scarce. Further, given disparities in health and health outcomes experienced by rural residents,^{20,21} a nuanced understanding of social isolation, loneliness, and social support in rural settings is essential to informing policy and programmatic interventions designed to improve population health so that such interventions can be appropriately designed and targeted. This study examines multiple dimensions of social isolation, looking separately at men and women living in rural communities.

Approach

We used data from Wave 2 of the National Social Life, Health, and Aging Project (NSHAP) study. The NSHAP study is funded by the National Institute on Aging and is administered by NORC at the University of Chicago. It includes a nationally-representative, probability-based sample of older adults and their spouses/partners. For this analysis, we included all respondents living in micropolitan and non-core rural counties (n=678), which we identified using restricted county-level identifiers, available through a secure server. The mean age of the rural residents included in the analysis was 72 years old, with a range of 36-93 years old and standard deviation of 8 years.

We used survey-weighted data to identify bivariate differences in various measures of social isolation and social support by gender. We examined gender differences among rural residents on multiple measures of social isolation and relationships, including marital status (has a current partner/spouse), number of close relatives, number of living children, number of living grandchildren, and number of friends. Each of these measures was based on respondent self-report. We analyzed differences in measures of social support, including whether the respondent feels like they can open up to family members and friends, and whether they can rely on family members and friends. To assess differences in perceived loneliness, we used three items, each of which were asked about separately: whether the respondent had ever a) felt left out, b) lacked companionship, or c) felt isolated. We summed the three items into one measure, the Three-Item Loneliness Scale,²² with a range of 0-9. Finally, we examined differences by gender in participation in social activities, including attending group meetings, attending a church or place of worship, and socializing with others.

We used chi-squared tests to identify differences in categorical variables and t-tests to identify differences in continuous variables.

Results

Table 1 presents differences in social relationships among rural older adults by gender. Women were significantly less likely than men to have a current partner or spouse (56% vs. 71%, $p<0.01$) and had slightly fewer living children than men (2.8 vs. 3.0, $p<0.1$). There were no other statistically-significant differences by gender in number and types of social relationships. Notably, 3% of both rural women and men reported having no friends, and nearly 2% of men and more than 1% of women reported having no close relatives (defined as the number of family members or relatives the respondent felt close to.)

Rural women and men were equally likely to say that they could rely on their friends and family members (Figure 1, next page), with nearly 95% of all rural older adults saying that they could rely on their family members. However, women were significantly more likely than men to say that they could open up to their friends (74% vs. 63%, $p<0.05$) and family members (90% vs. 77%, $p<0.001$).

Table 1: Social Relationships among Rural Residents, by Gender

	Men (N=311)	Women (N=367)
Has a current partner or spouse	71.0%	56.3%**
Number of close relatives		
None	1.8%	1.3%
One	6.3%	5.6%
Two - three	29.9%	19.4%
Four - nine	39.2%	39.7%
10 - 20	13.9%	22.6%
More than 20	9.0%	11.5%
Number of living children	3.01	2.78 [†]
Number of grandchildren	5.40	6.05
Number of friends		
None	3.1%	3.3%
One	1.6%	2.3%
Two - three	15.9%	14.0%
Four - nine	24.5%	33.4%
10 - 20	22.4%	20.9%
More than 20	32.4%	26.2%

Note: Differences by gender significant at: [†] $p<0.1$, ** $p<0.01$

Older rural women were significantly more likely to report feeling lonely, compared with older rural men (Figure 2), averaging 3.2 on the Three-Item Loneliness Scale, compared with 2.8 for men ($p < 0.05$). This result appears to be driven by gender differences in feeling left out, with women being more likely than men to report feeling left out some of the time or often (36% vs. 27%, $p < 0.05$). Women were also more likely than men to report lacking companionship and feeling isolated, although those results were not significant at $p < 0.05$.

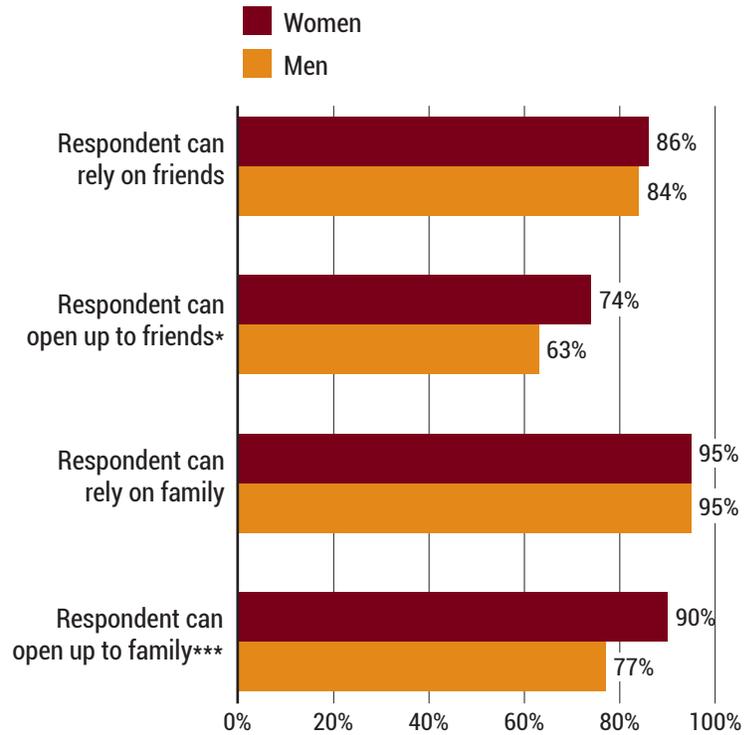
Table 2 (next page) shows differences in social participation by gender. Rural women and men were equally likely to attend group meetings and to socialize with others, but women were more likely to attend church or a place of worship. More than half (53%) of women attended church at least weekly, compared with 43% of men ($p < 0.001$). Nearly 30% of men attended church once a year or less often, compared with 18% of women. More than half (54%) of men and nearly one-half (45%) of women attended group meetings less often than once a month and more than one-fourth (27%) of men and nearly one-fifth (19%) of women socialized with others less than once a month.

Discussion and Implications

A substantial percentage of both rural men (27%) and women (19%) reported not having socialized with others on a monthly basis. More than 3% of both older men and older women reported having no friends at all. These findings have broad implications for health, well-being, and mortality.^{2,23} Clearly, social isolation is a challenge faced by rural women and men alike.

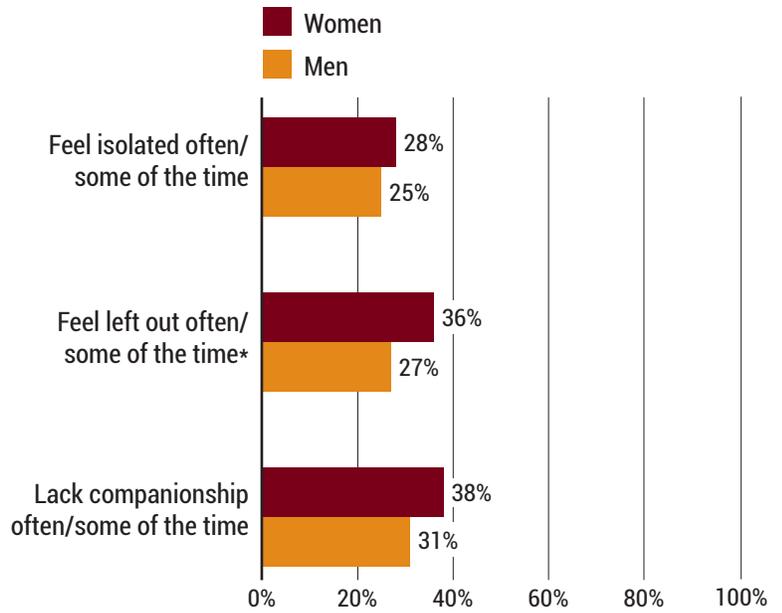
This analysis identified multiple differences in measures of social isolation among rural residents by gender, with women and men experiencing aspects of social isolation differently. Men reported being less able to open up to family and friends, and were less likely to be engaged in a place of worship. Women reported more frequent feelings of loneliness, especially feeling left out, and were less likely to have a spouse or partner. There were no other statistically-significant differences by gender, although women reported greater social participation and more loneliness across all measures. These findings indicate areas to target by gender; they may also indicate different perceptions of social needs and loneliness by gender. Additionally, these findings indicate need for improvement in integrating rural residents, both men and women, into social activities and finding ways to address loneliness and isolation.

Figure 1: Social Support by Gender



Note: * $p < 0.05$, *** $p < 0.001$

Figure 2: Perceived Loneliness by Gender



Note: * $p < 0.05$

Improving social connectedness should be a public health priority in all communities, but may be especially relevant in rural areas, where “deaths of despair” are more frequent and health outcomes are worse than in urban areas.^{4,5} Given the relatively high levels of social isolation reported by rural adults—both men and women—there may be value in community-level programming that increases opportunities for socialization, including through volunteering, community and senior centers, friendly visitor programs, intergenerational programming, and communication technology. Because some aspects of social isolation vary by gender, attention to differences between men and women may be used to design and target effective programming to address these challenges in rural communities.

Table 2: Social Participation by Gender among Older Rural Residents

	Men (N=311)	Women (N=367)
Attends group meetings		
Less than once a year	39.1%	33.4%
Once a year - several times a year	15.0%	11.9%
Monthly	15.7%	14.6%
Weekly or more	30.3%	40.1%
Attends a church or place of worship		
Less than once a year	28.8%	17.6%***
Once a year - several times a year	22.3%	19.4%***
Monthly	6.4%	9.7%***
Weekly or more	42.5%	53.3%***
Socializes with others		
Less than once a year	3.4%	2.1%
Once a year - several times a year	23.6%	17.1%
Monthly	16.0%	17.6%
Weekly or more	57.1%	63.3%

*Note: Differences by gender significant at: ***p>0.001*

References

1. Cornwell EY, Waite LJ. Measuring social isolation among older adults using multiple indicators from the NSHAP study. *J Gerontol Ser B Psychol Sci Soc Sci*. 2009;64B(Supplement 1):i38-i46. doi:10.1093/geronb/gbp037.
2. Holt-Lunstad J, Smith TB, Baker M, Harris T, Stephenson D. Loneliness and social isolation as risk factors for mortality. *Perspect Psychol Sci*. 2015;10(2):227-237. doi:10.1177/1745691614568352.
3. Holt-Lunstad J, Smith TB, Layton JB, et al. Social relationships and mortality risk: a meta-analytic review. *PLOS Med*. 2010;7(7):e1000316. doi:10.1371/journal.pmed.1000316.
4. Garcia MC, Faul M, Massetti G, et al. Reducing potentially excess deaths from the five leading causes of death in the rural United States. *MMWR Surveill Summ*. 2017;66(2):1-7. doi:10.15585/mmwr.ss6602a1.
5. Stein EM, Gennuso KP, Ugboaja DC, Remington PL. The epidemic of despair among white Americans: trends in the leading causes of premature death, 1999-2015. *Am J Public Health*. August 2017:e1-e7. doi:10.2105/AJPH.2017.303941.
6. Berkman LF, Glass T, Brissette I, Seeman TE. From social integration to health: Durkheim in the new millennium. *Soc Sci Med*. 2000;51(6):843-857.
7. Flowers L, Houser A, Noel-Miller C, et al. Medicare spends more on socially isolated older adults. *AARP Insight on the Issues*. 2017;125:1-15. <http://bit.ly/2uXRw1W>.
8. Kawachi I. Social capital and community effects on population and individual health. *Ann N Y Acad Sci*. 1999;896:120-130.
9. Chatters L, Taylor H, Nicklett E, Taylor R. Correlates of objective social isolation from family and friends among older adults. *Healthcare*. 2018;6(1):24. doi:10.3390/healthcare6010024.
10. Taylor HO, Taylor RJ, Nguyen AW, Chatters L. Social isolation, depression, and psychological distress among older adults. *J Aging Health*. 2018;30(2):229-246. doi:10.1177/0898264316673511.
11. Elder K, Retrum J. Framework for isolation in adults over 50. Washington, DC; 2012. <http://bit.ly/2uLYZC2>. Accessed July 24, 2018.
12. Henning-Smith C. Quality of life and psychological distress among older adults: the role of living arrangements. *J Appl Gerontol*. 2016;35(1):39-61. doi:0733464814530805 [pii].
13. Locher JL, Ritchie CS, Roth DL, Baker PS, Bodner E V, Allman RM. Social isolation, support, and capital and nutritional risk in an older sample: ethnic and gender differences. *Soc Sci Med*. 2005;60(4):747-761. doi:10.1016/j.socscimed.2004.06.023.
14. Russell D, Taylor J. Living alone and depressive symptoms: the influence of gender, physical disability, and social support among Hispanic and non-Hispanic older adults. *J Gerontol Ser B Psychol Sci Soc Sci*. 2009;64(1):95-104. doi:10.1093/geronb/gbn002.
15. Yang YC, McClintock MK, Kozloski M, Li T. Social isolation and adult mortality. *J Health Soc Behav*. 2013;54(2):183-203. doi:10.1177/0022146513485244.
16. Cacioppo JT, Fowler JH, Christakis NA. Alone in the crowd: the structure and spread of loneliness in a large social network. *J Pers Soc Psychol*. 2009;97(6):977-991. doi:10.1037/a0016076.
17. Parker K, Horowitz J, Brown A, et al. What unites and divides urban, suburban and rural communities. Pew Research Center; May 2018. <https://pewrsr.ch/2NFDmKs>. Accessed July 24, 2018.
18. USDA ERS - Poverty Demographics. <http://bit.ly/2095t5Q>. Accessed July 24, 2018.
19. Henning-Smith C, Prasad S, Casey M, Kozhimannil K, Moscovice I. Rural-urban differences in Medicare quality scores persist after adjusting for sociodemographic and environmental characteristics. *J Rural Heal*. September 2017. doi:10.1111/jrh.12261.
20. Garcia MC. Reducing potentially excess deaths from the five leading causes of death in the rural United States. *MMWR Surveill Summ*. 2017;66. doi:10.15585/MMWR.SS6602A1.
21. Matthews KA, Croft JB, Liu Y, et al. Health-related behaviors by urban-rural county classification—United States, 2013. *MMWR Surveill Summ*. 2017;66(5):1-8. doi:10.15585/mmwr.ss6605a1.
22. Hughes ME, Waite LJ, Hawkey LC, Cacioppo JT. A short scale for measuring loneliness in large surveys: results from two population-based studies. *Res Aging*. 2004;26(6):655-672. doi:10.1177/0164027504268574.
23. Cornwell EY, Waite LJ. Social disconnectedness, perceived isolation, and health among older adults. *J Health Soc Behav*. 2009;50(1):31-48. doi:10.1177/002214650905000103.



Rural Health Research & Policy Centers

Funded by the Federal Office of Rural Health Policy
www.ruralhealthresearch.org

Support for this study was provided by the Office of Rural Health Policy, Health Resources and Services Administration, PHS Grant No. 5U1CRH03717.

For more information, contact Carrie Henning-Smith (henn0329@umn.edu).

University of Minnesota Rural Health Research Center
Division of Health Policy and Management, School of Public Health,
2221 University Avenue SE, #350
Minneapolis, Minnesota 55414