

Friendship and Loneliness: A Prototype Roadmap for Health System Action



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INTRODUCTION

Loneliness, the subjective perception of social disconnectedness, is emerging as a public health crisis. In 2018, approximately 50 million U.S. adults aged ≥ 45 years reported feeling lonely, an increase from approximately 43 million in 2010.¹ The high rate of loneliness is particularly worrisome because loneliness negatively impacts psychological and physical health and is associated with a 50%, 29%, and 26% increased risk of developing Alzheimer's disease, coronary heart disease, and premature mortality, respectively.^{2–4} Although loneliness is a serious health threat regardless of age, older adults may be more susceptible to the detrimental health effects owing to their weakened physiologic system.⁵ Furthermore, the total cost of chronic loneliness is estimated at approximately £11,725 per person (\sim \$16,000) over 15 years compared with the cost for people who are not lonely.⁶ The coronavirus disease 2019 (COVID-19) pandemic and its accompanying physical distancing rules/recommendations have left people particularly susceptible to loneliness and heightened the collective awareness of its pernicious downstream effects. Not surprisingly, increasing worldwide efforts are being devoted to combating loneliness.⁷

FRIENDSHIP DEVELOPMENT AND MAINTENANCE: A PROMISING, UNDEREXPLORED AREA

Efforts in biomedicine, public health, and health psychology have traditionally focused on reducing the risk factors for loneliness. However, researchers and policymakers increasingly are seeking modifiable resilience factors that increase a person's ability to combat loneliness. One promising, yet underexplored way to combat loneliness is by teaching people how to develop and maintain positive relationships, such as friendships, and creating the infrastructure for such relationships to

flourish. Targeting friendship mechanisms, compared with other relationships such as kin relationships, may be beneficial for several reasons, particularly in later life. First, the possibility of enlarging family network is reduced in later life; however, opportunities for making new friendships and rekindling old friendships are greater. Second, friendships often offer benefits that kin relationships do not. Compared with family interactions, friend interactions are associated with greater happiness, enjoyment, and better health (e.g., better cognitive health and reduced mortality risk).^{8–10} Third, friendship interventions may reduce the stigma ascribed to loneliness interventions. Many people struggle to raise their hands and acknowledge that they are lonely. However, anyone and everyone can benefit from strong friendships.

Some loneliness interventions have begun targeting friendship mechanisms to reduce loneliness. However, most have focused on a limited range of friendship mechanisms, which may explain their limited success. For example, most interventions have focused only on

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friendships' behavioral mechanism, which targets improving behavioral skills (e.g., improving self-disclosure skills, increasing social support).

A more comprehensive friendship intervention could improve other mechanisms of friendship-building skills, including the ways people think (cognitive mechanisms) and feel (emotional mechanisms) about friendships.¹¹ Cognitive mechanisms include (1) reducing maladaptive biases about friendships and (2) learning the importance of shared similarities (homophily). Emotional mechanisms include increasing gratitude and compassion. A more holistic intervention that explicitly aims to enhance friendships and targets all friendship mechanisms (e.g., behavioral, cognitive, and emotional) might be an important pathway to effectively combating loneliness at scale.

TARGETING FRIENDSHIP MECHANISMS THROUGH THE HEALTHCARE SYSTEM

There are several reasons why the healthcare system is uniquely positioned to identify and implement programs aimed at reducing loneliness in older adults.¹² First, it is hard to identify and help lonely community-dwelling older adults because they often, although not always, engage in fewer social activities and are thus more likely invisible to many social systems. However, lonely older adults typically use healthcare services more frequently than nonlonely older adults⁶; and for some, this interaction is their only point of contact with the community. Second, healthcare systems may offer a suite of services that specifically target the mechanisms for why a person is lonely, and they have the resources and infrastructure to create safe channels for connection. Third, healthcare systems are the pillar of a community and can partner

with other well-trusted systems (e.g., community organizations, private and public sector partners, social-welfare programs) to develop/disseminate interventions to reduce loneliness. Thus, even if healthcare systems cannot offer their own programs, they can make referrals to their partner organizations and external resources to create a safe environment for vulnerable individuals, particularly during challenging times such as the COVID-19 pandemic. Notably, the healthcare system's partnership with various organizations may create more opportunities to identify and support people who face barriers to healthcare access (e.g., collaborating with volunteer organizations and social workers to make home visits to those lonely and homebound). Finally, the goal of the healthcare system is to improve population health. On the basis of the accumulating evidence that loneliness is detrimental to various health outcomes, it is only natural for the healthcare system to seek ways to combat loneliness.

The following section proposes a new prototype Model of Friendship: The 3 Cs for combating loneliness by building strong friendships (Confidence, Connection, Community) (Figure 1). This framework offers concrete and structured recommendations for how healthcare systems can combat loneliness and can be used as a tool for planning, implementing, and benchmarking successful friendship-building social connection programs. Ultimately, this framework will help healthcare systems to identify shortcomings and suggest a comprehensive list of solutions to optimize success in combating loneliness through friendship interventions.

Confidence

Developing a comprehensive set of friendship-building skills (behavioral, cognitive, and emotional) is fundamental to forming and maintaining positive relationships. For

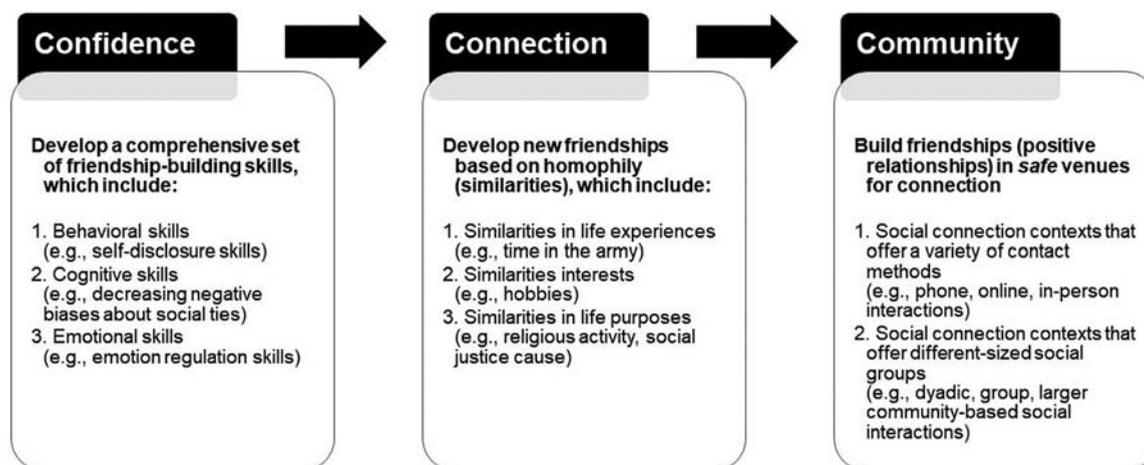


Figure 1. Model of Friendship: The 3 Cs for combating loneliness.

example, reciprocity (providing and receiving equal support) is particularly important for friendships. Compared with family relationships, friendships are more likely to dissolve when there is a lack/absence of reciprocity.¹³ Thus, the healthcare system can offer people opportunities to engage in various friendship skill-building programs after an intake assessment that identifies specific areas for improvement: (1) behavioral skills (e.g., self-disclosure, conflict management, and social support skills), (2) cognitive skills (e.g., decreasing maladaptive biases about relationships), and (3) emotional skills (e.g., increasing emotion regulation abilities).

Friendships improve psychological well-being, sometimes even more than family ties,¹⁴ and friend-focused networks also appear protective against mortality risk among older adults.¹⁰ Friendships also play a vital role when family or work ties are lost in later life (e.g., widowhood).¹⁵ Not surprisingly, friendships alleviate loneliness.^{16,17} Thus, friendships play an essential role in combating loneliness across the life span.

Connection

Once people have the confidence to meet others, what are self-reinforcing bonds that help people to cultivate and deepen friendship(s) over time? Homophily—a tendency for people to seek and bond with people similar to themselves—is one mechanism that leads to the formation and maintenance of friendships, and homophily can emerge under a variety of conditions, including shared (1) life experiences (e.g., veterans reminiscing about the Army), (2) interests (e.g., hobbies), and (3) shared purpose (e.g., volunteer work, religious activity, social justice cause).

Community

Creating a variety of socially acceptable and safe venues for people to establish and maintain positive friendships is critical. At the initial stage of friendship development, continued participation in shared activities is particularly important for increasing trust and commitment to friendships. Furthermore, lonely older adults often engage with the healthcare system as a safe way to increase social interactions without having to worry about the potential stigma. Thus, all venues should be safe spaces that people regularly visit to form positive friendships and not specially created spaces for lonely people because this can generate stigma and reduce participation.

First, various contact methods should be offered, including phone, online, and in-person interactions that meet the needs of differently abled older adults such as people with hearing, vision, and mobility loss. This is particularly important for friendships because friends

often do not reside in the same household. Second, social interactions with different sized groups should be offered, including dyadic, small group and larger community-based social interactions. Dyadic interactions could lead to deeper bonds and provide a safer environment for those uncomfortable with larger social settings. However, helping people build group/community relationships is also important because these social contexts are less likely to dissolve. The network can still exist even if one person departs or passes away. Furthermore, these larger groups allow people to expand their social networks because one network member might introduce their friend to another member. For example, health interest groups offered by healthcare organizations could include a platform with support groups that allow people to connect with others who have similar health conditions. Moderators (e.g., volunteers or paid personnel with a medical background) can monitor conversations to ensure that only accurate information is shared. Such interventions could improve the physical, cognitive, and emotional health of people.

Why use the healthcare system to combat loneliness? The healthcare system has the rare and unique capacity to (1) identify lonely people, (2) connect lonely people to others who share similarities (e.g., life experiences, interests, purpose), and (3) collaborate with partner organizations to create effective interventions/programs aimed at reducing loneliness. First, virtually every person engages with the healthcare system for either preventive care (e.g., annual wellness visits) or treatment. Importantly, for people who are less likely to seek support owing to the stigma of being labeled a lonely person, interactions with healthcare providers may be particularly important in combating loneliness and may even be the only opportunity to reduce loneliness. Second, healthcare providers interact with a vast array of people with diverse backgrounds and experiences (e.g., sociodemographic characteristics, personality, health conditions). Thus, the healthcare system can maximize opportunities for lonely people to connect with others who have similar interests and experiences. Third, the healthcare system is uniquely positioned to partner with various social-service providers to create effective interventions (e.g., organizations serving vulnerable populations). Through collaborative efforts, the healthcare system can not only offer its own friendship intervention but also make referrals to external partners. For example, for those lonely and homebound, a home health social worker who is already visiting people for other medical procedures can facilitate friendship interventions (e.g., initial screening and referrals). Similarly, community health workers are community members and commonly share similar background characteristics (e.g.,

sociodemographic characteristics, life experiences) with the members they serve and play a central role in connecting the healthcare system with communities. Thus, they can help to disseminate friendship interventions, particularly for the more vulnerable populations.

POTENTIAL BARRIERS AND SOLUTIONS

Potential barriers exist. The following section identifies and addresses the 2 key concerns that have emerged in discussions about this model with specialists in healthcare delivery, benefit design, financing, operations, and marketplace incentives. First, billable hours are a concern among healthcare personnel. Thus, with the intent of creating a reimbursable code for assessing/treating loneliness, efforts are being devoted to creating an International Classification of Functioning, Disability, and Health code for loneliness. Second, the cost of funding such programs is another concern. To this end, academics, health insurance companies, and government organizations (e.g., Centers for Medicare & Medicaid Services) are collaborating to continuously evaluate ways to generate sustainable funding streams to finance such programs. If successful, the costs of these programs and interventions could be offset by the savings from the reduced health costs because of loneliness.

Furthermore, social/health organizations, educational agencies, and governments around the globe are creating interventions/policies aimed at reducing loneliness. For example, both the United Kingdom and Japan recently appointed their first ministers of loneliness to combat loneliness at the national level.⁷ Similarly, British doctors have started social prescribing, which is writing medical prescriptions for patients to engage in social activities often at reduced prices.¹⁸ Thus, even if healthcare systems are unable to create sustainable funding models for these programs, they can help to refer lonely older adults to programs that are being built by other organizations.

CONCLUSIONS

Society is struggling to contain the increasingly acknowledged loneliness epidemic in the U.S., and a comprehensive and multidisciplinary response effort is needed.¹⁹ This paper proposes a new prototype Model of Friendship: the 3 Cs for combating loneliness that targets friendships mechanisms through the healthcare delivery system to reduce loneliness. Despite potential challenges and barriers, this new prototype model of friendship is one actionable way to alleviate loneliness and enhance the health and well-being of the rapidly aging population.

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REFERENCES

1. Anderson GO, Thayer CE. *Loneliness and social connections: a national survey of adults 45 and older*. Washington, DC: AARP Research, September 2018. <https://www.aarp.org/research/topics/life/info-2018/loneliness-social-connections.html>. Accessed January 26, 2022.
2. Wilson RS, Krueger KR, Arnold SE, et al. Loneliness and risk of Alzheimer disease. *Arch Gen Psychiatry*. 2007;64(2):234–240. <https://doi.org/10.1001/archpsyc.64.2.234>.
3. Valtorta NK, Kanaan M, Gilbody S, Ronzi S, Hanratty B. Loneliness and social isolation as risk factors for coronary heart disease and stroke: systematic review and meta-analysis of longitudinal observational studies. *Heart*. 2016;102(13):1009–1016. <https://doi.org/10.1136/heartjnl-2015-308790>.
4. Holt-Lunstad J, Smith TB, Baker M, Harris T, Stephenson D. Loneliness and social isolation as risk factors for mortality: a meta-analytic review. *Perspect Psychol Sci*. 2015;10(2):227–237. <https://doi.org/10.1177/1745691614568352>.
5. Hawkey LC, Cacioppo JT. Aging and loneliness: downhill quickly? *Curr Dir Psychol Sci*. 2007;16(4):187–191. <https://doi.org/10.1111/j.1467-8721.2007.00501.x>.
6. Mihalopoulos C, Le LK, Chatterton ML, et al. The economic costs of loneliness: a review of costofillness and economic evaluation studies [published correction appears in *Soc Psychiatry Psychiatr Epidemiol*. 2019;55(7):837]. *Soc Psychiatry Psychiatr Epidemiol*. 2020;55(7):823–836. <https://doi.org/10.1007/s00127-019-01733-7>.
7. Fried L, Prohaska T, Burholt V, et al. A unified approach to loneliness. *Lancet*. 2020;395(10218):114. [https://doi.org/10.1016/S0140-6736\(19\)32533-4](https://doi.org/10.1016/S0140-6736(19)32533-4).
8. Pinquart M, Sörensen S. Influences of socioeconomic status, social network, and competence on subjective well-being in later life: a meta-analysis. *Psychol Aging*. 2000;15(2):187–224. <https://doi.org/10.1037//0882-7974.15.2.187>.
9. Sharifian N, Kraal AZ, Zaheed AB, Sol K, Zahodne LB. Longitudinal associations between contact frequency with friends and with family,

- activity engagement, and cognitive functioning. *J Int Neuropsychol Soc.* 2020;26(8):815–824. <https://doi.org/10.1017/S1355617720000259>.
10. Litwin H, Shiovitz-Ezra S. Network type and mortality risk in later life. *Gerontologist.* 2006;46(6):735–743. <https://doi.org/10.1093/geront/46.6.735>.
 11. Blieszner R, Ogletree AM, Adams RG. Friendship in later life: a research agenda. *Innov Aging.* 2019;3(1). igz005. <https://doi.org/10.1093/geroni/igz005>.
 12. **Social Isolation and Loneliness in Older Adults: Opportunities for the Health Care System.** Washington, DC: National Academies of Sciences, Engineering, and Medicine. The National Academies Press, 2020.
 13. Blieszner R, Roberto KA. Friendship across the life span: reciprocity in individual and relationship development. In: Lang FR, Fingerma KL, eds. *Growing Together: Personal Relationships Across the Lifespan.* Cambridge, United Kingdom: Cambridge University Press, 2004:159–182.
 14. Lee HJ, Szinovacz ME. Positive, negative, and ambivalent interactions with family and friends: associations with well-being. *J Marriage Fam.* 2016;78(3):660–679. <https://doi.org/10.1111/jomf.12302>.
 15. de Vries B, Utz R, Caserta M, Lund D. Friend and family contact and support in early widowhood. *J Gerontol B Psychol Sci Soc Sci.* 2014;69(1):75–84. <https://doi.org/10.1093/geronb/gbt078>.
 16. Chen Y, Feeley TH. Social support, social strain, loneliness, and well-being among older adults: an analysis of the Health and Retirement Study. *J Soc Pers Relat.* 2014;31(2):141–161. <https://doi.org/10.1177/0265407513488728>.
 17. Nicolaisen M, Thorsen K. What are friends for? Friendships and loneliness over the lifespan—from 18 to 79 years. *Int J Aging Hum Dev.* 2017;84(2):126–158. <https://doi.org/10.1177/0091415016655166>.
 18. Harris B. Doctors in the UK are prescribing social activities to fight against loneliness. *World Economic Forum.* February 19, 2018. <https://www.weforum.org/agenda/2018/02/line-dancing-and-baking-a-prescription-for-good-health>.
 19. Cacioppo JT, Cacioppo S. The growing problem of loneliness. *Lancet.* 2018;391(10119):426. [https://doi.org/10.1016/S0140-6736\(18\)30142-9](https://doi.org/10.1016/S0140-6736(18)30142-9).