

Greater Neighborhood Cohesion in Childhood and in Older Adults' Current Neighborhoods Each Predict Higher Cognitive Function

Jean Choi, Sae Hwang Han, Yee To Ng, & Elizabeth Muñoz

Healthy cognitive function allows older adults to maintain their independence and economic productivity. Due to the rapid increase of the population of older adults in the United States and the lack of effective treatments for Alzheimer's disease and related dementias, it is important to identify factors that promote cognitive health prior to late life.

A sense of neighborhood cohesion—the perceived degree of trust, reciprocity, and sense of belonging among members of a community—may be one of those factors that can promote cognitive health and delay the onset of cognitive decline. Indeed, adults' more favorable perceptions of their current neighborhoods have been related to positive cognitive health outcomes, and shown to be protective against cognitive decline.

Less is known, however, about the potential enduring effects of neighborhood cohesion from earlier stages in a person's life course. Cognitive functioning in midlife and older adulthood is partly determined by early-life exposures. These early-life experiences and exposures can accumulate and contribute to well-being and better health outcomes in later life.

Engaging in mentally stimulating activities may protect people against cognitive impairment by building stocks of coping strategies that help stave off or protect against brain diseases. Research has found that structural features of a neighborhood provide important sources of cognitive reserve. These features include public infrastructure, such as sidewalks, and amenities such as parks, libraries and access to cafes and other walkable destinations.

A sense of neighborhood cohesion may be beneficial for cognitive health because it provides greater opportunities for physical activity, positive social interactions, and healthy lifestyle behaviors in both childhood and adulthood. On the other hand, people who perceive their neighborhoods as less cohesive tend to experience greater loneliness, isolation, and increased symptoms of depression and anxiety, which are well-documented risk factors for cognitive decline and impairment in midlife and late life.

Using data from a large sample of U.S. adults, this study [1] investigated the impact of perceived neighborhood cohesion at different life stages—childhood, young adulthood, early midlife, and late midlife/late adulthood—on cognitive aging.

KEY FINDINGS

- ▶ Greater perceived neighborhood cohesion in childhood (measured at age 10) and at the time of the baseline interview (measured among people ranging in age from 51 to 89, or among people from late midlife through late adulthood) each predicted higher cognitive function at the time of the baseline interview (*see figure*).
- ▶ Neighborhood cohesion at young adulthood (age at first full-time job) and early midlife (age 40) were not significantly associated with cognitive function at the later ages (age 51-89).
- ▶ No associations were found between any of the neighborhood cohesion variables in any life stage and with the rate of change in cognitive function.

Older adults who felt a sense of belonging to their childhood neighborhood and to their current neighborhood each had higher cognitive function



People ages 51 through 89 in the U.S. Health and Retirement Study rated their perceptions of neighborhood cohesion during childhood (measured at age 10) and at the time of the interview.

POLICY IMPLICATIONS

Neighborhood contexts are critical yet understudied social determinants of cognitive health. Greater perceptions of neighborhood cohesion in both early and later life can promote better cognitive function in the period spanning late midlife to late adulthood.

Declines in cognitive function can begin prior to old age. Therefore, policies to enhance people's sense of belonging and trust in their neighborhoods across the life course can be important strategies through which to promote healthy cognitive aging. These policies could include improving the built environment, for example, adding sidewalks and walking paths; and adding amenities, such as parks and community or recreation centers. These additions to the community would provide more opportunities for physical activity, positive social interactions, and healthy lifestyle choices.

DATA AND METHODS

This study used data from up to 10 waves of the Health and Retirement Study (1998–2016), an ongoing biennial longitudinal panel study of over 23,000 households in the United States, comprised of a nationally representative sample of adults over age 50. The authors used data from participants who were aged 51–89 at the time of their first interview (baseline).

Respondents provided ratings of their perceptions of neighborhood cohesion at childhood (age 10), young adulthood (age at the first full-time job), early midlife (age 40), and concurrently at the time of the interview (ages covering late midlife through late adulthood). To measure neighborhood cohesion at age 40 and below, participants were asked to rate how much they felt a part of the area within a mile of their home on a scale of 1 (I felt I didn't belong in this area) to 7 (I really felt part of this area). To measure how participants felt about their current neighborhood, they were asked to rate, on a scale of 1 to 7, four statements regarding the area within a mile of their home: I really feel part of the area/I feel that I don't belong in this area; most people in the area can be trusted/most people in this area cannot be trusted; most people in the area are friendly/most people in this area are unfriendly; and if you were in trouble, there are lots of people in this area who would help you/if you were in

DATA AND METHODS, CONT.

trouble, there is nobody in this area that would help you. Responses were recoded so that higher numbers corresponded to higher levels of cohesion. Respondents also completed the modified version of the Telephone Interview for Cognitive Status.

The authors then fit a univariate latent growth curve model of change in cognitive function across waves and tested whether neighborhood cohesion during each recollected life stage predicted the level of cognitive function and change in cognitive function over time. The analyses were based on 25,991 observations collected from 3,599 respondents, equivalent to about 7.22 observations per participant.

REFERENCE

[1] Choi, J., Han, S.H., Ng, Y.T., & Muñoz, E. (2023). Neighborhood cohesion across the life course and effects on cognitive aging. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 78(10):1765-1774. <https://doi.org/10.1093/geronb/gbad095>

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ABOUT THE AUTHORS

Jean Choi, jean.choi@austin.utexas.edu, is a PhD candidate in the department of Human Development and Family Sciences (HDFS) and a graduate student trainee in the Population Research Center, The University of Texas at Austin; **Sae Hwang Han** and **Elizabeth Muñoz** are assistant professors in HDFS, Center on Aging and Population faculty affiliates, and PRC faculty scholars, UT Austin; and **Yee To Ng** is a postdoctoral scholar in the department of Physical Medicine and Rehabilitation, University of Michigan.

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