## **PUBLIC HEALTH**

# POSTER PRESENTATIONS



# **Developing topics**

# Social isolation, loneliness, and cognitive impairment in late life: The MYHAT study

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### Abstract

Background: Social isolation and loneliness have detrimental effects on the health of older adults. Being socially isolated and lonely are likely both predictors and consequences of cognitive impairment with aging. However, isolation and loneliness may be differentially associated with cognitive impairment and may operate through both shared and unique pathways. The present study aimed to examine the association of social isolation and loneliness with concurrent cognitive impairment, and to explore potential mechanisms of the association.

Methods: Participants (n =1,982; Mage = 77.65 years, 1,210 (61.1%) female, 1,877 (94.7%) white, 815 (41.12% > high school education) were from a population-based study of mild cognitive impairment and dementia. Three composite measures derived from factor analysis, representing social network structure, social connectedness, and loneliness were examined in relation to clinical dementia rating (CDR normal = 0 vs. CDR impaired >= 0.5) at baseline, adjusted for demographic characteristics. The indirect effects of the composite measures were also estimated conditioned on general health and function, lifestyle factors, vascular health, depressive symptoms, and sleep. Results: Of the participants, 569 (28.71%) were cognitively impaired at baseline. Social connectedness (OR 1.48, 95% CI=1.33-1.64) and loneliness (OR 1.38, 95% CI=1.24-1.54), but not social network structure, were significantly associated with greater likelihood of being cognitively impaired after adjustment for demographics. These effects remained significant after separate adjustments for general health and function, lifestyle factors, vascular health, depressive symptoms, sleep, and other composites. The effect of social connectedness was appreciably attenuated by general health status and function (OR 1.37, 95% CI=1.22-1.54), while loneliness was appreciably attenuated by depressive symptoms (OR 1.26, 95% CI=1.12-1.42).

Conclusions: Older adults with lower levels of social connectedness and higher perception of loneliness are more likely to be cognitively impaired, which were partially explained by health and function and depressive symptoms, respectively. Addressing these factors may reduce risk for cognitive impairment, or conversely, reduce risk for disconnectedness and loneliness among those with cognitive impairment. These results have implications for the impact that limited social contact and feelings of lone-

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liness during the COVID-19 pandemic may have on older adults with or at risk for cognitive impairment.