'All the lonely people': The impact of loneliness in old age on life and health expectancy
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In 1966, The Beatles cemented the plight of lonely older people in the popular imagination with "Eleanor Rigby," a song that turned pop music on its head when it stayed at No. 1 on the British charts for four weeks. Today, the impact of loneliness in old age on life and health expectancy has been categorically quantified for the first time in a study by scientists at Duke-NUS Medical School (Singapore), Nihon University (Tokyo, Japan) and their collaborators, published in the Journal of the American Geriatrics Society.

"We found that lonely older adults can expect to live a shorter life than their peers who don't perceive themselves as lonely," said the study's lead author, Assistant Professor Rahul Malhotra, head of research at Duke-NUS' Centre for Aging Research and Education (CARE). "Furthermore, they pay a penalty for their shorter life by forfeiting potential years of good health."

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Associate Professor Angelique Chan, executive director of CARE and a senior author of the study, noted, "Besides being the year associated with the coronavirus disease, 2019 was also when the number of adults aged over 30 made up half the total global population for the first time in recorded history, marking the start of an increasingly aging world. In consequence, loneliness among seniors has become an issue of social and public health concern."

Research Project Professor Yasuhiko Saito, from the College of Economics, Nihon University, a senior co-author of the study, added, "This study is timely because stay-at-home and physical distancing measures instituted since the start of the COVID-19 pandemic have only intensified concern for the mental and physical well-being of older persons."

Key findings: Loneliness has real, physical consequences

The study findings show that people aged 60 who perceive themselves to be sometimes lonely or mostly lonely can expect to live three to five years less, on average, compared to peers who perceive themselves as never lonely. Similarly, at ages 70 and 80, lonely older persons can, on average, expect to live three to four and two to three years less, respectively, compared to non-lonely peers.

Using the same dataset, the researchers found that the perception of loneliness has a similar impact on two types of health expectancy—remaining years of life lived in a self-rated state of good health as well as remaining years of life lived without being limited when going about 'activities of daily living'. Such activities include routines like bathing and dressing, rising from or settling into a bed or chair, and preparing meals.
At age 60, sometimes lonely or mostly lonely seniors can expect to spend three to five fewer years of their remaining life, on average, without limitations in daily living activities, compared to never-lonely peers. At age 70, their active life expectancy goes down to two to four fewer years, on average. At age 80, it is at one to three fewer years, on average.

**How common is loneliness among older adults in Singapore?**

Singapore is a particularly relevant setting for studying how loneliness impacts older adults because the country has a rapidly aging population, and a 'collectivistic' culture, in which relationships and the interconnectedness between people are central—in contrast to an 'individualistic' culture, where each individual's needs and desires are considered to be more important. Previous studies found levels of loneliness to be higher in collectivistic societies, suggesting loneliness may have a more detrimental impact in Singaporean society.

In 2016 and 2017, CARE researchers conducted a study—known as the Transitions in Health, Employment, Social Engagement, and Intergenerational Transfers in Singapore (THE SIGNS) study—to look into factors influencing health, well-being, and activity and productivity levels in older Singaporeans. Nationally representative data, collected from more than 2,000 older Singapore citizens and permanent residents, showed that a third (34 percent) perceived themselves to be lonely. This proportion increased with age, from 32 percent among those aged 60–69 years, to 40 percent among those aged 80 and above.

More males (37 percent) were lonely, relative to females (31 percent). Across education levels, the proportion of lonely older Singaporeans was lowest (33 percent) among those with no formal education, and highest (38 percent) among those with higher-than-tertiary education. This proportion was nearly 10 percent higher among seniors who lived alone (43 percent) compared to those who did not live alone (33 percent).

"Building on THE SIGNS study, our recent findings highlight the population health impact of loneliness, and the importance of identifying and managing it among older adults," said Asst Prof Malhotra. "This is part of a series of studies to assess the impact of important health and social constructs, like loneliness, sensory impairments, obesity, gender and education, on life and health expectancy among older adults."

"With older persons at potentially greater risk of loneliness as a result of pandemic control measures, there has been increasing policy interest in loneliness around the world," said Assoc Prof Chan. "In 2018, the UK launched a national strategy for tackling loneliness and, in 2021, Japan appointed a 'Minister of Loneliness'. We hope this study helps galvanize more policies to tackle loneliness among older persons."


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