



## The Detrimental Impact of Social Isolation on Senior Citizens' Mental and Physical Wellbeing

<sup>1</sup>Aneesh Karthik, <sup>1</sup>Advait More, <sup>1</sup>Amaira Arora, <sup>1</sup>Muhammad Nail Rayyan

<sup>1</sup>GEMS Modern Academy, United Arab Emirates

---

### Abstract:

Social isolation, a state of being disconnected from normal social networks poses a significant challenge for senior citizens. It is often triggered by factors such as loss of mobility, unemployment, and health issues. An hourglass-shaped age pyramid is expected in countries like Japan and Canada, so the mental health of senior citizens becomes a paramount concern. To study the factors related to the above problem, this research paper explores the effects of social isolation and its correlation to future population demographics, mental health, and the evolving age pyramid. The study employs a survey-based approach to comprehensively investigate social activities, community engagement, and perceived support among senior citizens. With 134 responses, primarily from senior citizens and millennials, the data analysis underscores the pressing need for platforms to facilitate socialization. The proposed app or platform is designed to address physical limitations and enhance communication, emerging as a promising solution. Findings emphasize the urgency of proactive measures to combat social isolation, especially as senior citizens are projected to become the main components of society. The study aims to contribute valuable insights for future planning, fostering the well-being and connectedness of the elderly population in the face of demographic changes.

**Keywords:** wellbeing, social isolation, mental health, mental and physical wellbeing

---

### Introduction

As the world's population comes to a decline by 2050, the age pyramid will start to form an hourglass shape soon after, as observed in countries like Japan and Canada (Turner, 2023). This perpetuates the importance of senior citizens and their well-being, as they will become the main components of society. This leads us to the issue at hand: the social isolation of senior citizens. If we do not act fast, we may witness an epidemic in which senior citizens lack support systems for their mental health and are more prone to ailments such as increased blood pressure, heart disease, obesity, diminished immune system functioning, depression, anxiety, poorer cognitive functioning, increased risk of Alzheimer's disease, and mortality (Wu, 2020). Prior studies suggested that the lack of mental health support can lead to ailments such as increased blood pressure, heart disease, obesity, diminished immune system functioning, depression, anxiety, poorer cognitive functioning, increased risk of Alzheimer's disease, and mortality, hence if not acted upon, we witness a related epidemic. In this research paper, the authors aim to explore the impacts of social isolation and discuss a solution that helps senior citizens before this problem becomes acute. Research clearly states the impact of social isolation on mental health of senior citizens especially during COVID-19 (Mushtaq, 2023). Very few studies have been conducted focusing on the aspect of time and age pyramids with relevance to the future population. Hence, this article aims to delve into the characteristics of this age group and anticipate the challenges that senior citizens will face in the future. This will assist in preparing for the future and helping senior citizens before a possible epidemic. This epidemic is already starting, and it is called senior invisibility, along with the loneliness epidemic among senior citizens (Charness, 2020). Senior citizens are overlooked, and their mental health is severely neglected. Studies have shown that around 37% of older adults reported feeling a lack of companionship, and these epidemics have just been making this worse. (Malani, 2023).

---

### Material and Methodology

In this study, authors employed a survey-based approach to collect comprehensive information regarding social activities, community engagement, and perceived support among senior citizens. The benefits are extensive, particularly in terms of resource use, including the elimination of time and space boundaries, data entry, and postage and copying expenses. It is also fast and inexpensive (Tuten, 2010). In this survey, non-leading questions have been used. The questions covered the user's age, their thoughts about senior citizen's social activities outside the home, maintaining connections with friends and family, involvement in community programs, thoughts about community support for senior citizens, and a self-assessment of loneliness or isolation on a scale from 1 to 5. The survey was distributed to students, who then sent it to their families. We received 134 responses, most of the responses were from senior citizens and millennials. The people in this survey were divided into age groups of 60+ and 18-60. Participants under 18 were excluded from the survey due to potential limitations in their knowledge of senior citizens. The screeners were used to separate our responses into different categories.

The use of surveys in health care requires special attention to security and privacy issues for adherence to HIPAA regulations (Dominelli, 2003). This is why the data collection methods adhere to the data protection laws, and the authors made personal questions optional to protect our participant's privacy. People under 18 were prohibited as a measure to collect authentic data and maintain privacy.

## Result and Discussion

**Hypothesizing and Analyzing:** The hypothesis of the studies was prepared to indicate that senior citizens are beginning to be socially isolated, and more than 70% of our responses can show that the world should create more platforms for senior citizens to socialize. In this survey, if the data shows that senior citizens are neglected by their communities, they feel lonely, and interactions are physically limited, then a platform for them to socialize is required to secure our future. In the future, they will make up a lot of our society due to the slowdown in population growth. Their well-being is vital, both in the future and to this society.

**Statistics:** From the data given in Figures 1-5, it has been observed that the estimated level of loneliness ranges between 3 and 4. A platform is in desperate need, as portrayed by 91.2% of people, and only 29% of people believe that senior citizens' communities provide enough support and resources for them. The main cause of the reduction in social interaction is physical limitations, as seen by 64% of people who believe so. As per a study conducted by Canada Health, the majority of the household population aged 55 and over 72% of men and 78% of women, 4.3 million people altogether reported having at least one chronic condition in 1994-95 (Canada Health, 1996) The primary method of connection utilized by senior citizens is phone calls, as seen by 56.6% of people in our survey. Most of the results turned out to be as expected, with demand for a platform exceeding our expectations. 91% of people led us to believe that it is a necessity to create a platform for them, which we plan on pursuing. Figure 1 depicts that a staggering 74.3% of people believe that the level of social isolation among senior citizens being 3 or above shows how severe of a silent epidemic this has become and why action is imminent. Only a small percentage of people, 15.7%, believe that the level of social isolation is below 3 which really shows us the severity of this problem. The main reason for the lack of social interactions is physical limitations, as per figure 3, and this is a problem that has no absolute solution. This is what leads the authors to believe that an app or a platform is the solution of choice. The second-highest category is family moved away, which can also be solved using an online platform. This solution applies to seven criteria, so it is fitting and viable. In cases of higher-order physical limitations, such as blindness, we plan to add features to our app like dictation. For other disorders, phones can open new opportunities for people with different levels of impairment through the assistive technology in the phone's apps (Almao, 2019). The design should conform to the elderly's life habits by integrating into their daily routines, while the promotion of social behaviors should be unconscious (Pedell, 2010). It has been observed that only 29% of people believe that their communities provide enough senior citizen support (figure 4). This information has conveyed the need to bridge the gap and be the support system for senior citizens who lack it. Since the preferred online mode of communication is Video Chat/Phone Call and Messaging to 66%, 46%, and 18% respectively (figure 5). The need for in-person visits has been omitted as it is not applicable to an app.

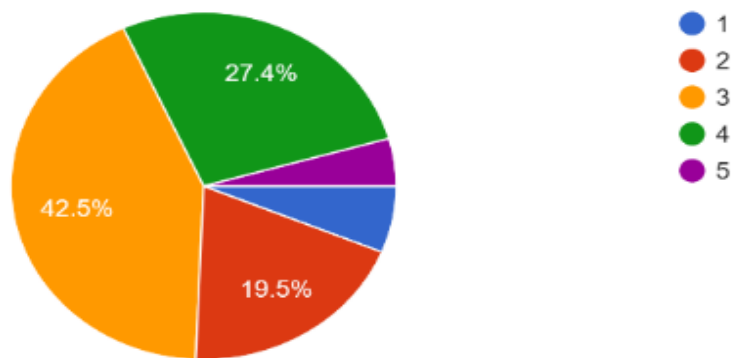


Figure 1: Overall level of loneliness or isolation (on a scale of 1 to 5, with 1 being not lonely and 5 being very lonely)

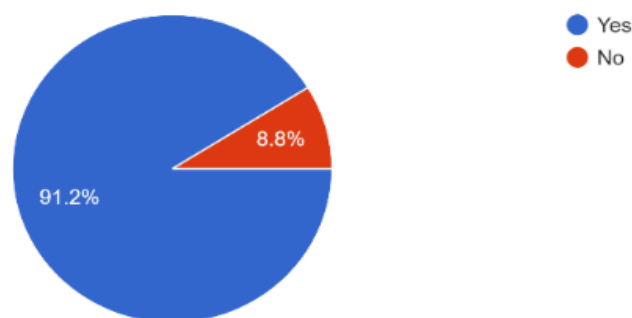


Figure 2: Need of platform for socialization

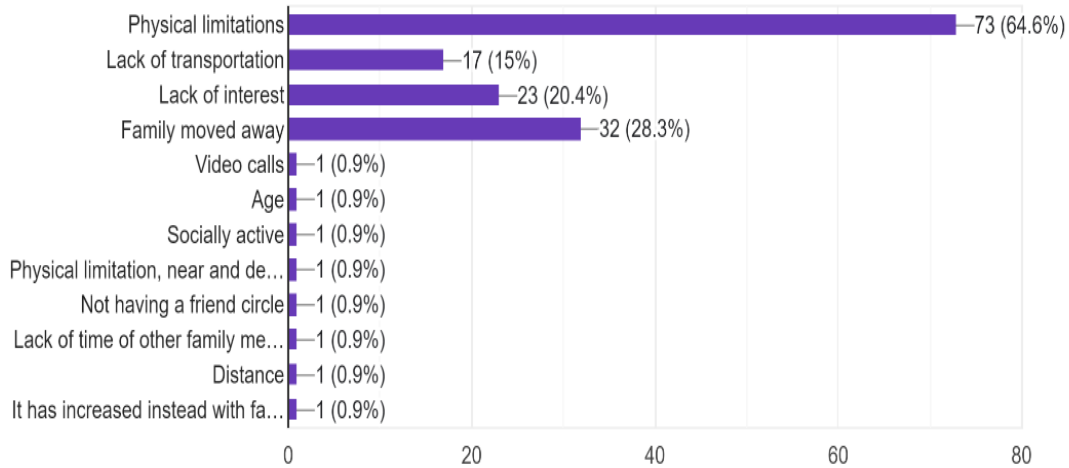


Figure 3: Primary reasons for isolation

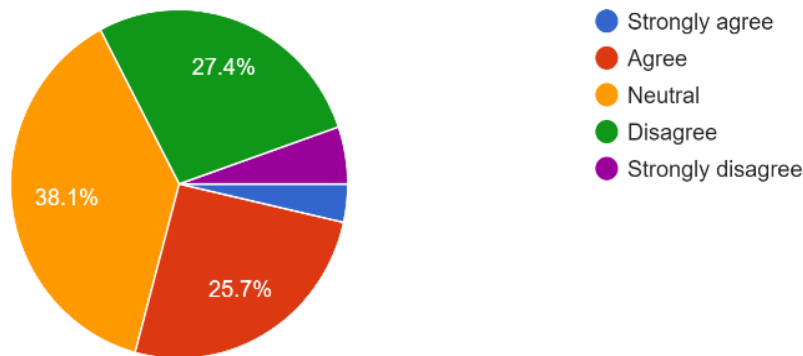


Figure 4: Availability of community support and resources

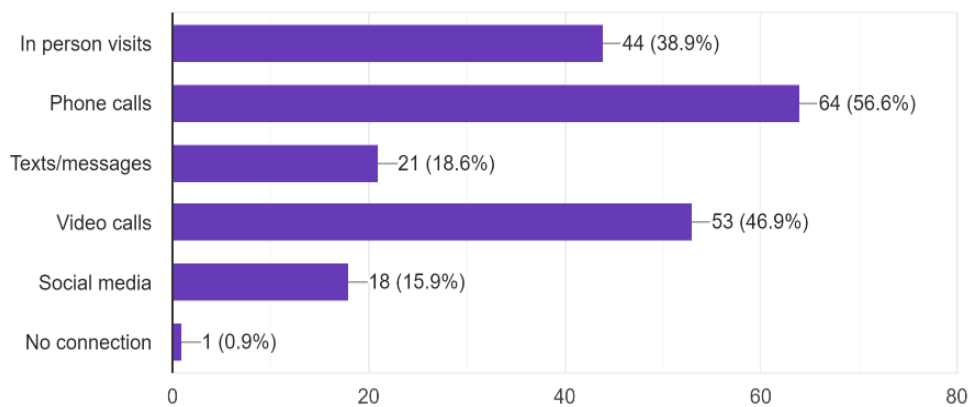


Figure 5: Methods of connection with families and friends

## Conclusion

In conclusion, the findings of this research shed light on the pressing issue of social isolation among senior citizens, emphasizing the need for immediate action to prevent a looming epidemic. Loneliness was associated with increased risk of death over the 6-year follow-up period (Perissinotto, 2012 ). Emphasizing the impact of loneliness. For the second half of the century, population stabilization and the onset of a decline are likely. In addition to the future size of the population, its distribution by age will also change (Lutz, 2010). This will cause senior citizens to become the main components of

society and need to be taken care of. The survey results overwhelmingly support the notion that creating platforms for senior citizens to socialize is not just a luxury but a necessity. The proposed app or platform, designed to address physical limitations and foster communication, stands as a promising solution. By recognizing the severity of social isolation and taking proactive steps to mitigate its effects, a future where senior citizens are not just included but actively supported can be ensured, ultimately ensuring a healthier and more connected society for all.

### **Acknowledgement**

We would like to thank our dear Principal, Ms. Khambatta, Vice Principal Mr. John Gomes for providing us with the opportunities to conduct this research and Dr. Vimaldeep, Mr. Sheldon and Mr. Avinash for their extensive support throughout this project.

### **References**

---

- [1] Turner, B., "World's population could plummet to 6 billion by the end of the century, study suggests," *livescience.com*, March 30, 2023.
- [2] Wu, B., "Social isolation and loneliness among older adults in the context of COVID-19: a global challenge.," *Global Health Research and Policy*, 5(1), 2023.
- [3] Mushtaq, A., & Khan, M. J. H., "Social isolation, loneliness, and mental health among older adults during COVID-19: a scoping review," *Journal of Gerontological Social Work*, 1–14, 2023
- [4] The Vanishing Senior: A silent epidemic | The Institute for Successful Longevity. (n.d.).
- [5] Trends in Loneliness Among Older Adults from 2018-2023. (2023, March 13).
- [6] Tuten, T. L., Conducting online surveys. In *American Psychological Association eBooks* (pp. 179–192), 2010
- [7] Dominelli, A., Web Surveys—Benefits and Considerations. *Clinical Research and Regulatory Affairs*, 20(4), 409–416, 2003
- [8] Almaso, E. C., & Golpayegani, F., "Are mobile apps usable and accessible for senior citizens in smart cities? In *Lecture notes in computer science*", (pp. 357–375), 2019
- [9] Lutz, W., & Kc, S. , "Dimensions of global population projections: what do we know about future population trends and structures?," *Philosophical Transactions - Royal Society. Biological Sciences*, 365(1554), 2779–2791, 2010
- [10] Pedell, S.Vetere, F.Kulik, L.Ozanne, E.Gruner, A. "Social isolation of older people: The role of domestic technologies". In Proceedings of the 22nd Australasian Computer-Human Interaction Conference, OZCHI 2010, Brisbane, Australia, 22–26 November 2010; pp. 164–167
- [11] Jane Gentleman, Mary Sue Devereaux, Jason Siroonian., Health Reports, 1996.
- [12] Perissinotto, C., Cenzer, I., & Covinsky, K. E., "Loneliness in older persons. *Archives of Internal Medicine*," 172(14), 2012