

5

Loneliness during the COVID-19 pandemic

Mark Ward

Contents

Key Findings	66
5.1 Introduction.....	67
5.2 Measuring loneliness.....	68
5.3 Results	69
5.3.1 Individual indicators of loneliness.....	69
5.3.2 Distribution of UCLA loneliness scores	69
5.3.3 Loneliness and quality of life	73
5.3.4 Loneliness and self-rated physical and mental health.....	74
5.4 Discussion	77

5

Loneliness during the COVID-19 pandemic

Key Findings

- COVID-19 restrictions have greatly reduced opportunities for social participation and interactions. This poses a risk of increased loneliness among older adults.
- Loneliness is associated with poorer physical and psychological wellbeing as well as premature mortality.
- One-in-ten adults aged 60 years and older feel that they often lack companionship (9%) and/or often feel isolated from others (9%), while 11% hardly ever or never feel in tune with the people around them.
- Five percent of older adults often feel left out and 7% often feel lonely, while 30% feel lonely at least some of the time.
- During the COVID-19 pandemic, average loneliness scores on the University of California, Los Angeles Loneliness scale were 4.5 from a maximum of 10. This is more than double the average score in 2018/19.
- Women and older adults who live alone were the loneliest, while those who completed third level education were least lonely.
- Despite greater restrictions on the over 70s, there was little difference in the levels of loneliness reported by older adults aged 60 to 69 or over 70 years of age.
- Loneliness is associated with poorer overall Quality of Life (QoL) as well as the domains of QoL captured by the CASP-12 QoL measurement tool (Control, Autonomy, Self-realisation, and Pleasure).
- Loneliness is associated with both self-rated physical health and self-rated mental health.
- Increased loneliness and social isolation due to COVID-19 restrictions will have negative consequences for the physical and mental wellbeing of older adults.

5.1 Introduction

Even before the COVID-19 pandemic resulted in dramatic changes to the nature and extent of social interactions in all aspects of our lives, loneliness was increasingly viewed as an important public health issue. Research on loneliness has shown that it is harmful to both physical and psychological wellbeing. (1–3) Smaller social networks are also associated with early mortality among older adults with or without limited everyday activities. (4) Indeed, there is an increasing body of research linking loneliness to excess mortality risk (5–10), with the associated mortality risk comparable to that of smoking and obesity. (11) Conversely, strong social ties have been shown to protect individuals from emotional distress, cognitive decline and physical disability. (1,12)

Concern about loneliness among older adults has been heightened by responses to the COVID-19 pandemic which have greatly curtailed opportunities for social interactions. Social distancing and similar measures in response to the pandemic have increased loneliness and social isolation among older adults. (13–15) The negative impacts of these measures on the physical and psychological wellbeing of older adults are not yet understood, but are likely to be dramatic and long-lasting. Already, a survey by McGrath, Murphy, and Richardson (16) of members of the Men's Sheds community network shows decreased wellbeing and increased loneliness as a result of COVID-19 restrictions.

TILDA has published extensive research findings on loneliness previously, including a report on loneliness and social isolation in November 2019, six months before the COVID-19 pandemic in Ireland (17), and another early in the pandemic in July 2020. These reports show clearly the negative consequences of loneliness for physical and mental wellbeing, and for older adults' quality of life. They also demonstrate the importance of maintaining regular social interactions whether through socialising, participation in social activities or volunteering. Opportunities for many if not all of these activities have been largely denied due to COVID-19 restrictions. It is essential that the effect of COVID-19 restrictions on loneliness and the wellbeing of older adults is described and understood, particularly as we prepare to address the medium and longer-term impact on people's lives.

This Chapter begins with a description of the UCLA loneliness scale (18) used to measure loneliness in the TILDA COVID-19 survey. The next section describes levels of loneliness according to a number of important sociodemographic characteristics. We then describe the association between loneliness and quality of life, self-rated physical health and mental health. The Chapter concludes with a brief discussion of the findings.

5.2 Measuring Loneliness

Loneliness is the subjective assessment of an individual's satisfaction with the quality of their social relationships; while most often considered the psychological embodiment of social isolation (8), it can also be present among highly socially-integrated individuals. (19)

TILDA measures emotional (subjective) loneliness using a modified version of the University of California Los Angeles (UCLA) Loneliness scale. (18) This measurement tool consists of five items:

How often do you feel you lack companionship?

How often do you feel left out?

How often do you feel isolated from others?

How often do you feel in tune with the people around you?

How often do you feel lonely?

Each question has three response options (hardly ever or never = 0, some of the time = 1, often = 2). Responses to the five items were summed, resulting in an overall score ranging from 0 (not lonely) to 10 (extremely lonely).

5.3 Results

5.3.1 Individual indicators of loneliness

Table 5.1 shows the responses to each of the five questions included in the UCLA loneliness scale. One-in-ten adults aged 60 years and older feel that they often lack companionship (9%) and/or often feel isolated from others (9%), while 11% hardly ever or never feel in tune with the people around them. Five percent of participants often feel left out and 24% of them feel this way some of the time. Finally, 7% of older adults often feel lonely while 30% feel lonely at least some of the time.

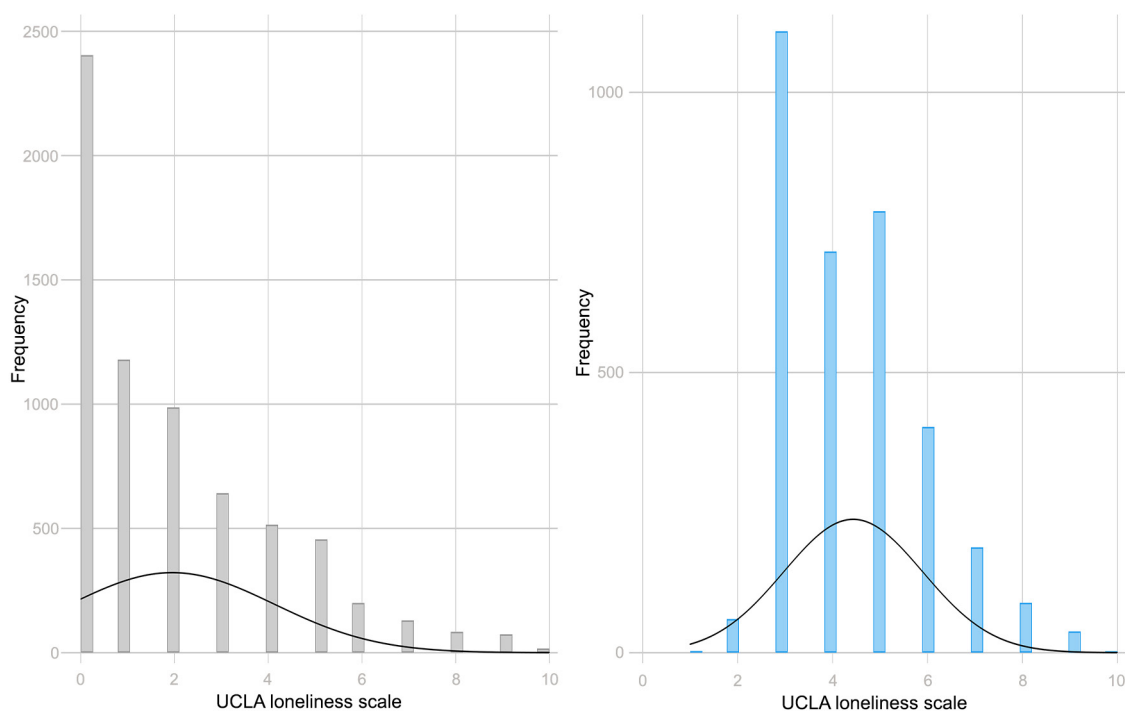
Table 5.1. Responses to the five-items in the UCLA loneliness scale

	Hardly ever or never		Some of the time		Often		N
	%	95% CI	%	95% CI	%	95% CI	
How often do you feel you lack companionship	55	[53-58]	35	[33-38]	9	[8-10]	3240
How often do you feel left out?	71	[69-73]	24	[22-26]	5	[4-6]	3197
How often do you feel isolated from others?	59	[57-61]	32	[30-34]	9	[8-10]	3210
How often do you feel in tune with the people around you?	11	[10-13]	36	[34-38]	53	[51-55]	3197
How often do you feel lonely?	63	[61-65]	30	[28-32]	7	[6-8]	3235

5.3.2 Distribution of UCLA loneliness scores

To illustrate the sizeable increase in loneliness scores since the start of the COVID-19 pandemic, Figure 5.1 shows the distribution of scores in 2018/2019 and those reported since March 2020. As noted earlier, higher scores, up to a maximum of 10, reflect greater loneliness. The average loneliness score is 4.5 and the median is 4.0. There has been a notable change in the distribution of loneliness scores since TILDA last reported on this topic in November 2019, when the average score was 2.1 and the median was 1.0 (13, p.8). The shape of the distribution has also changed since 2019, where the distribution of UCLA loneliness scores was heavily skewed, with most participants reporting very low loneliness scores. The distribution has shifted to the right during the COVID-19 pandemic, meaning that loneliness scores have increased between during that time.

Figure 5.1. Distribution of UCLA loneliness scale among the over 60s in 2018/2019 (grey) and during the COVID-19 pandemic (blue)



The average loneliness scores of different sociodemographic groups are presented in Table 5.2. Loneliness is significantly higher among women. Older adults who left school by the end of their primary education are significantly lonelier on average than those who had completed third level education. Older adults who live alone are also lonelier than those who lived with at least one other person. There is no difference in levels of loneliness among different age groups or between those adults who live in rural or urban areas.

Table 5.2. Average UCLA loneliness scale by gender, age group, education level, household status, and location

	Mean (95% CI)	N
Gender		
Male	4.32 (4.23, 4.42)	1,410
Female	4.63 (4.54, 4.73)	1,700
Age Groups		
60 to 69 years	4.47 (4.37, 4.58)	1,471
≥70 years	4.50 (4.42, 4.58)	1,639
Education		
Primary/none	4.58 (4.44, 4.72)	539
Secondary	4.47 (4.38, 4.56)	1,241
Third/higher	4.34 (4.26, 4.43)	1,330
Household Status		
Lives alone	4.75 (4.62, 4.89)	818
Lives with other(s)	4.38 (4.30, 4.46)	2,292
Location		
Urban	4.52 (4.43, 4.61)	1,740
Rural	4.44 (4.34, 4.54)	1,370
Total	4.49 (4.42, 4.55)	3,110

As expected, both men and women who live alone experience greater loneliness than those who live with at least one other person (Figure 5.2). Comparing men and women, we find that women who live with others had a higher average UCLA loneliness score than men who live with others.

Figure 5.2. Average UCLA loneliness scores by gender and household status

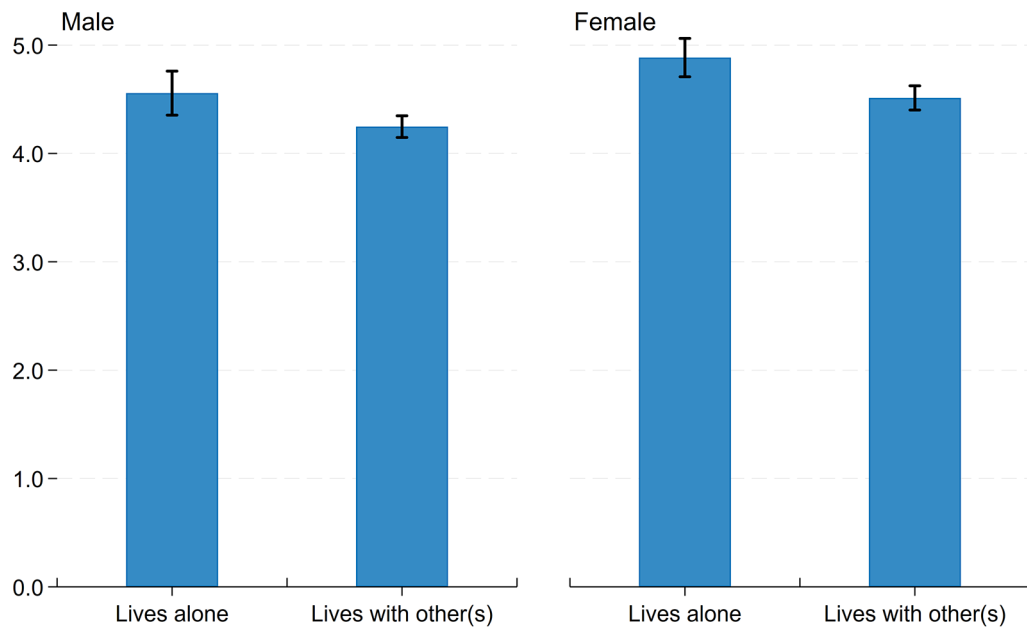
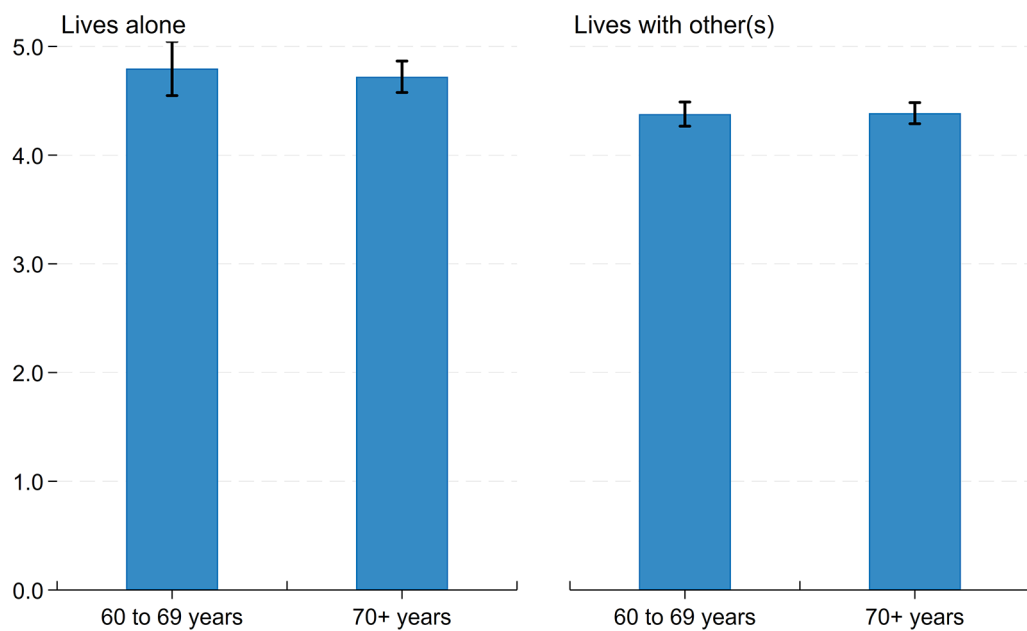


Figure 5.3 shows the average loneliness score of participants aged 60 to 69 and over 70 years, by their household situation. Again, we find that loneliness was higher among those who lived alone but loneliness levels were similar in both age groups.

Figure 5.3. Average UCLA loneliness scores by household status and age group



5.3.3 Loneliness and quality of life

Quality of life (QoL) was measured at each wave of data collection in TILDA using the previously validated Control, Autonomy, Self-realisation and Pleasure Scale (CASP-12) measurement tool (21–23) which captures information on four domains of the QoL of older adults (Table 5.3). The items included in CASP-12 are statements such as: I can do the things that I want to do, I look forward to each day, and I feel that life is full of opportunities. Participants are asked to indicate how often (often, sometimes, not often, or never) they feel each statement applies to their life. Each item is scored from 0 to 3 and summed to give an overall score (range 0 to 36), with higher scores denoting better QoL.

Table 5.3. CASP-12 quality of life domains

CASP-12 Quality of Life domains	
Control	The ability to actively participate in one's environment.
Autonomy	The right of the individual to be free from the unwanted interference of others.
Self-realisation	The fulfilment of one's potential.
Pleasure	The sense of happiness or enjoyment derived from engaging with life.

A correlation provides us with a measurement of the strength of the relationship between two variables, loneliness and CASP-12 quality of life domains. The strength of a correlation is measured on a range of -1 to +1. A value of 0 indicates that there is no relationship between the two variables, 1 indicates a perfect positive correlation, and -1 indicates a perfect negative correlation.

As shown in Table 5.4, loneliness was negatively correlated with each domain captured in the CASP-12 measure of QoL. The strongest correlation was between loneliness and the control domain with higher loneliness associated with lower control. The second strongest correlation was between the pleasure domain and loneliness, followed by self-realisation, and lastly the autonomy domain.

There was also a strong negative correlation between loneliness and overall QoL with loneliness associated with significantly lower QoL.

Table 5.4. Correlation between loneliness and the quality of life domains and overall quality life score

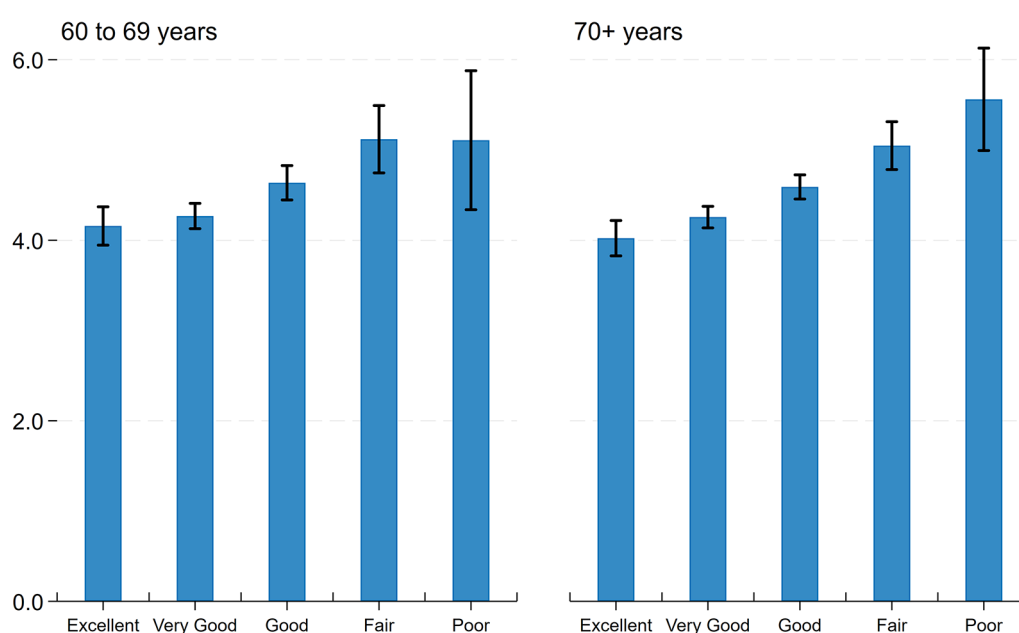
CASP-12 Quality of Life domains	Pearson's correlation	R ²	P value
Control	-0.46	21.2	<0.001
Autonomy	-0.26	6.8	<0.001
Self-realisation	-0.30	9.3	<0.001
Pleasure	-0.35	12.4	<0.001
Overall QoL	-0.46	21.5	<0.001

5.3.4 Loneliness and self-rated physical and mental health

As part of the TILDA COVID-19 SCQ, participants were asked to rate both their physical health and mental health on a 5-point Likert scale ranging from 1 = excellent to 5 = poor. In this final section of this Chapter, we examine the relationship between loneliness and both self-rated physical and mental health.

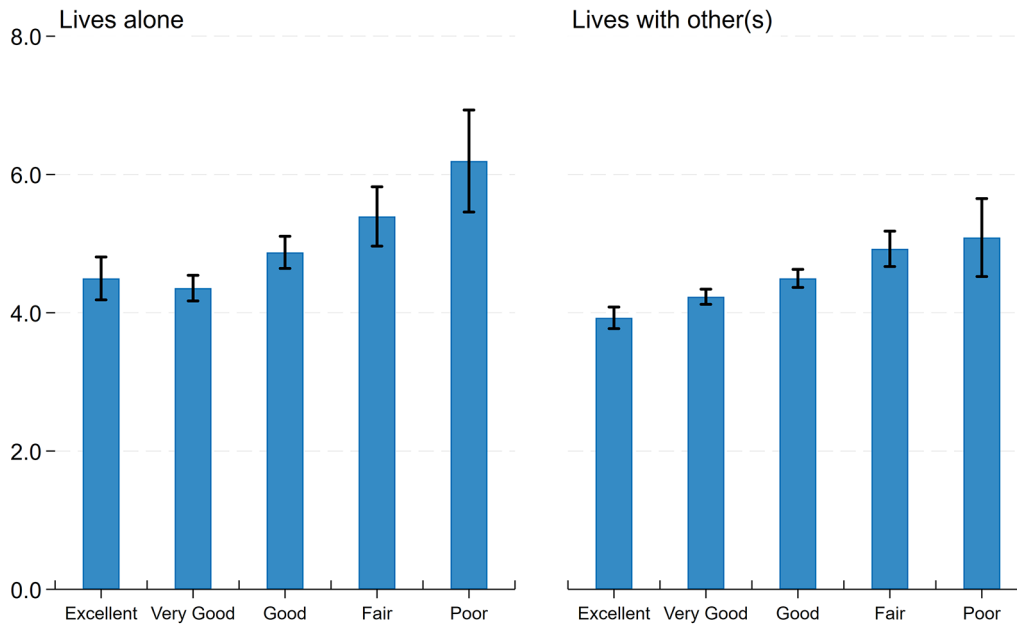
Overall, 14% of adults aged 60 years and older rate their physical health as excellent, 37% as very good, 33% as good, 14% as fair and 2% as poor. Figure 5.4 clearly shows a strong linear association between loneliness and self-rated physical health, with lower loneliness associated with better self-rated health. The gradient is particularly clear among the over 70s, with a difference of 1.6 in UCLA loneliness score between those who rate their health as excellent and those who rate it as poor (5.6 vs. 4.0).

Figure 5.4. Average UCLA Loneliness score by self-rated physical health and age group



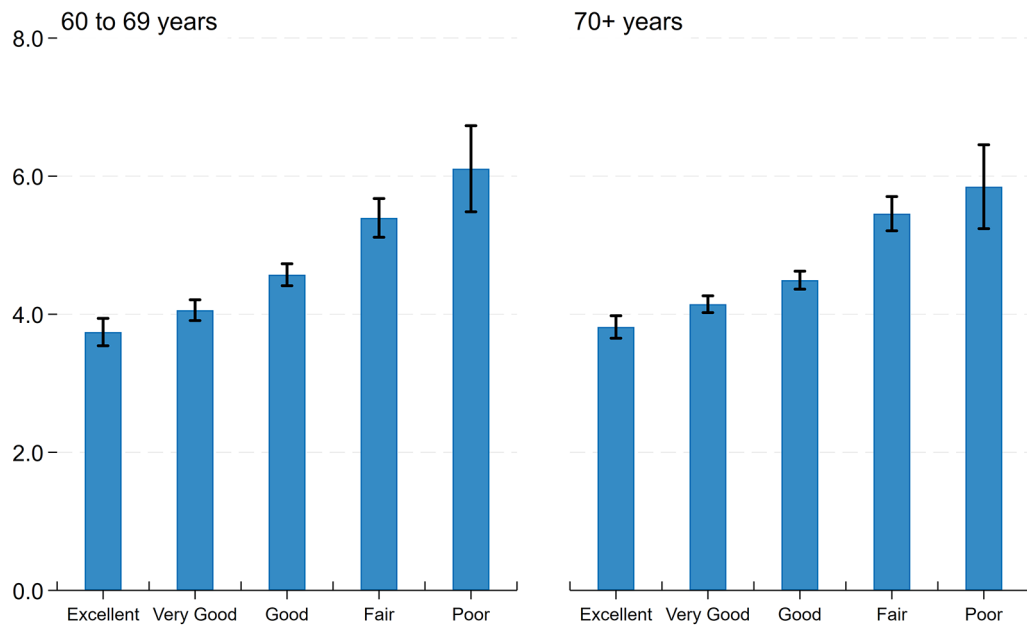
As previously discussed, UCLA loneliness scores are higher among older adults who live alone. Figure 5.5 shows that the association between loneliness and self-rated physical health is similar among those who live alone and those who live with others. However, the gradient is more pronounced among those who live with others.

Figure 5.5. Average UCLA loneliness score by self-rated physical health and household status



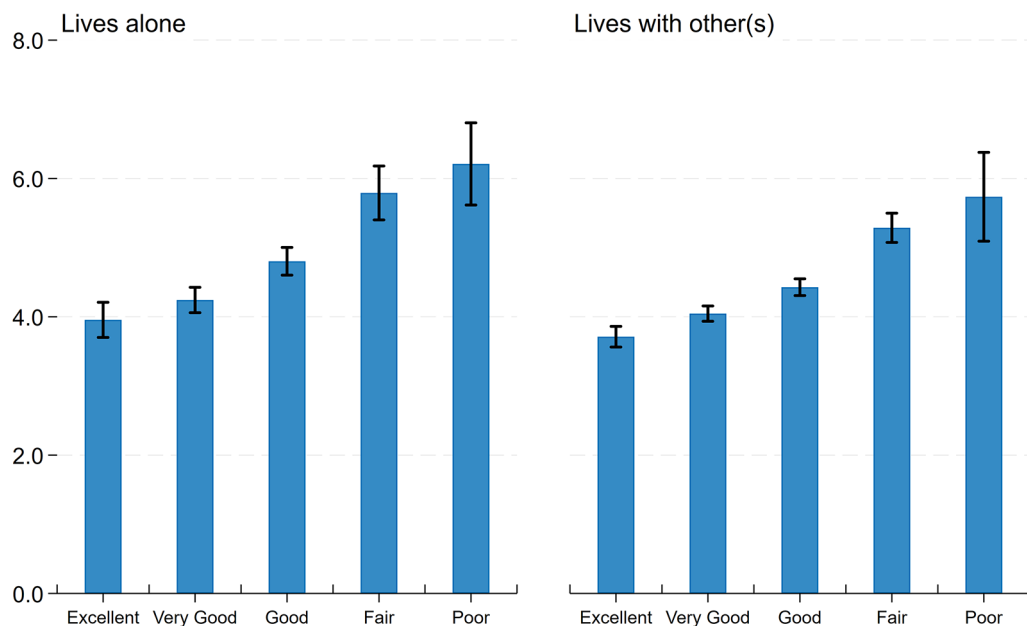
Turning to self-rated mental health, we find overall that 12% of adults aged 60 years and older rate their mental health as excellent, 31% as very good, 37% as good, 17% as fair and 3% as poor. As with self-rated physical health, lower levels of loneliness are associated with better self-rated mental health. As demonstrated in Figure 5.6, the pattern of this association was similar among participants aged 60 to 69 and those over 70.

Figure 5.6 Average UCLA loneliness score by self-rated mental health and age group



Finally, Figure 5.7 shows the association between loneliness and self-rated mental health, for older adults who live alone and those who live with at least one other person. The association is clear among both groups, with loneliness associated with poorer self-rated mental health.

Figure 5.7. Average UCLA loneliness score by self-rated mental health and household status



5.4 Discussion

There is now a large body of research showing the negative impacts of loneliness on both physical and psychological wellbeing (1,2) and more recently, excess mortality risk. (8) This, coupled with changing demographics that see an increasing number of older adults living alone, has led to loneliness becoming an important public health issue.

We know many of the things that protect against loneliness – living with others, strong family ties, social participation and interactions, volunteering, strong community ties and so on. Many of the opportunities to maintain strong social ties through these activities have been denied due to restrictions put in place in response to the COVID-19 pandemic. Many of these restrictions have been particularly onerous for people aged 70 years and older. This group has been required to self-isolate at home for long periods of time. This has severely curtailed interactions with family and friends and has impacted every aspect of their lives (including food shopping, physical activity, self-care and social connections). The consequences of these upheavals will be wide-ranging and long-lasting. It is critical that these consequences are identified as quickly as possible so that damaging repercussions can be mitigated and the wellbeing of older adults fully restored.

In this Chapter, we have described levels of loneliness among older adults during the COVID-19 pandemic. We have also shown how loneliness is associated with poorer quality of life and self-rated physical and mental wellbeing.

Using the UCLA loneliness scale, which is included by TILDA in each round of data collection, we found that the average loneliness score among older adults had more than doubled since the start of the COVID-19 pandemic. This change does not appear to be limited to any one group or subsection of society but rather seems in evidence across the population.

Somewhat surprisingly given the extra restrictions imposed on the over 70s, this group did not differ in their levels of loneliness compared to those aged 60 to 69. This suggests that levels of loneliness among the 60 to 69 age group may have been affected in a way similar to those over 70, and that the over 70s were very resilient in the face of the changes they were asked to make to their everyday activities and social interactions. We hope that, using TILDA data collected over ten years, we can identify some of the factors that have protected older adults from the most potentially damaging consequences of the restrictions.

A consistent finding in TILDA's research on loneliness among older adults is that loneliness is associated with poorer quality of life. (17) Quality of life is an important feature of successful ageing, as it provides us with an holistic view of older adults' lives and does not focus on physical health alone. (23) Here, again, we found that loneliness was associated with poorer quality of life during the COVID-19 pandemic. As well as to overall quality of life as measured by the CASP-12 tool, we also found that loneliness was most strongly related to the control domain of quality of life. Control refers to an individual's ability actively to participate in their environment. (20) This sense of control over one's environment has been denied older adults, as where, how, and with whom they may interact has been severely curtailed and in many instances made impossible. This has negatively impacted the quality of life of older adults, an important marker of successful ageing.

As well as quality of life, we have also shown in this Chapter that loneliness is associated with poorer self-rated physical and mental health, thus highlighting the potential long-term damage to wellbeing that increased loneliness may cause. This may have important consequences for the health of older adults and the healthcare system as we deal with the medium and longer-term consequences of the pandemic. Again, TILDA is ideally placed to provide the evidence base to support this work.

Finally, the findings reported here must be viewed in the context of the central role that older adults play in the wellbeing of the population and the contribution they make to our society, as family, friends, neighbours, carers, workers and volunteers. These contributions have been upended during the COVID-19 pandemic and we owe it to society to ensure that we understand the impact of the COVID-19 restrictions and provide a roadmap for our recovery.

In conclusion, the findings reported here are of increased importance in the wake of COVID-19 restrictions, including social distancing and cocooning. Loneliness and social isolation will have been a feature of the pandemic and this will have negative consequences for the physical and mental health of older adults. Our findings provide an evidence base for healthcare professionals to consider loneliness during clinical assessments of their patients. Interventions based on these assessments may see benefit from social prescribing, whereby clinical staff refer their patients to non-clinical community groups and services. This provides a practical example of how the social, as well as physical, needs of older adults may be met.

References

1. Burholt V, Scharf T. Poor health and loneliness in later life: The role of depressive symptoms, social resources, and rural environments. *Journals Gerontol - Ser B Psychol Sci Soc Sci*. 2014;69(2):311–24.
2. Coyle CE, Dugan E. Social isolation, loneliness and health among older adults. *J Aging Health*. 2012;24(8):1346–63.
3. Mund M, Freuding MM, Möbius K, Horn N, Neyer FJ. The Stability and Change of Loneliness Across the Life Span: A Meta-Analysis of Longitudinal Studies. *Personal Soc Psychol Rev*. 2019;1–29.
4. Abuladze L, Sakkeus L. The role of social networks and disability in survival. Health and socio-economic status over the life course. *SHARE*; 2019. p. 227–34.
5. Hakulinen C, Pulkki-Råback L, Virtanen M, Jokela M, Kivimäki M, Elovainio M. Social isolation and loneliness as risk factors for myocardial infarction, stroke and mortality: UK Biobank cohort study of 479 054 men and women. *Heart*. 2018;104:1536–42.
6. Luo Y, Hawkey LC, Waite LJ, Cacioppo JT. Loneliness, health, and mortality in old age: A national longitudinal study. *Soc Sci Med [Internet]*. Elsevier Ltd; 2012;74(6):907–14. Available from: <http://dx.doi.org/10.1016/j.socscimed.2011.11.028>
7. O'Súilleabháin PS, Gallagher S, Steptoe A. Loneliness, living alone, and all-cause mortality. *Psychosom Med*. 2019;81(6):521–6.
8. Steptoe A, Shankar A, Demakakos P, Wardle J. Social isolation, loneliness, and all-cause mortality in older men and women. *Proc Natl Acad Sci U S A [Internet]*. 2013;110(15):5797–801. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23530191><http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC3625264>
9. Tilvis RS, Laitala V, Routasalo PE, Pitkälä KH. Suffering from Loneliness Indicates Significant Mortality Risk of Older People. *J Aging Res*. 2011;2011:1–5.
10. Ward, M., May, P., Normand, C., Kenny, R.A., Nolan, A. Mortality risk associated with combinations of loneliness and social isolation. Findings from The Irish Longitudinal Study on Ageing (TILDA). *Age & Ageing*, 2021 [In press].

-
11. 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):227–37.
 12. Park NS, Jang Y, Lee BS, Chiriboga DA. The relation between living alone and depressive symptoms in older Korean Americans: do feelings of loneliness mediate? *Aging Ment Heal* [Internet]. Taylor & Francis; 2017;21(3):304–12. Available from: <https://doi.org/10.1080/13607863.2015.1099035>
 13. Hwang TJ, Rabheru K, Peisah C, Reichman W, Ikeda M. Loneliness and Social Isolation during the COVID-19 Pandemic. *Int Psychogeriatrics.* 2020;1–4.
 14. Ward M, McGarrigle C, Hever A, O’Mahoney P, Moynihan S, Loughran G, et al. Loneliness and social isolation in the COVID-19 pandemic among the over 70s: data from the Irish Longitudinal Study on Ageing (TILDA) and ALONE [Internet]. Dublin; 2020. Available from: https://tilda.tcd.ie/publications/reports/pdf/Report_Covid19SocialIsolation.pdf%0A
 15. Wu B. Social isolation and loneliness among older adults in the context of COVID-19: a global challenge. *Glob Heal Res Policy.* Global Health Research and Policy; 2020;5(1):154–6.
 16. McGrath A, Murphy N, Richardson N. The impact of the COVID-19 pandemic on the wellbeing of Irish Men’s Shed members. *Health Promot Int.* 2020;1–13.
 17. Ward M, Layte R, Kenny RA. Loneliness , social isolation , and their discordance among older adults Findings from The Irish Longitudinal Study on Ageing (TILDA) [Internet]. Dublin: Trinity College Dublin; 2019. Available from: https://tilda.tcd.ie/publications/reports/pdf/Report_Loneliness.pdf
 18. Russell D. UCLA Loneliness Scale (Version 3): reliability, validity, and factor structure. *J Pers Assess.* 1996;66(1):20–40.
 19. McHugh JE, Kenny RA, Lawlor BA, Steptoe A, Kee F. The discrepancy between social isolation and loneliness as a clinically meaningful metric: findings from the Irish and English longitudinal studies of ageing (TILDA and ELSA). *Int J Geriatr Psychiatry.* 2017;32(6):664–74.

20. Hyde M, Wiggins RD, Higgs P, Blane DB. A measure of quality of life in early old age: The theory, development and properties of a needs satisfaction model (CASP-19). *Aging Ment Heal* [Internet]. 2003;7(3):186–94. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/12775399>
21. Sexton E, King-Kallimanis BL, Conroy RM, Hickey A. Psychometric evaluation of the CASP-19 quality of life scale in an older Irish cohort. *Qual Life Res*. 2013;22(9):2549–59.
22. Wiggins RD, Netuveli G, Hyde M, Higgs P, Blane D. The evaluation of a self-enumerated scale of quality of life (CASP-19) in the context of research on ageing: A combination of exploratory and confirmatory approaches. *Soc Indic Res*. 2008;89(1):61–77.
23. Ward M, McGarrigle CA, Kenny RA. More than health: quality of life trajectories among older adults—findings from The Irish Longitudinal Study of Ageing (TILDA). *Qual Life Res* [Internet]. Springer International Publishing; 2019;28(2):429–39. Available from: <http://dx.doi.org/10.1007/s11136-018-1997-y>