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MAKEY, Laura, LEWIS, Robin, ASHMORE, Russell <<http://orcid.org/0000-0002-9456-7926>> and WIGFIELD, Andrea

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Loneliness and the COVID-19 pandemic: implications for practice

Laura Michelle Makey, Robin Lewis, Russell Ashmore and Andrea Wigfield

ABSTRACT

Loneliness is a complex universal human experience. A variety of evidence indicates that prolonged loneliness can have a negative effect on an individual's long-term physical and psychological outcomes. Empirical evidence and systematic reviews show strong links between loneliness and ill health, particularly cardiovascular disease and mental health. Loneliness is increasing in frequency and severity. The issue of loneliness has been part of UK Government mandates since 2018; however, evidence suggests that, due to the pandemic, the need to focus on the issue may be even more significant. Assessing for loneliness can be challenging and many people do not want to report their feelings of loneliness. Interventions should aim to be preventive and help people create meaningful interactions. Useful interventions include person-centred interventions, cognitive therapy and group intervention therapy. There is a need for more evidence-based loneliness interventions. A knowledge of local and voluntary sectors is vital so health professionals can effectively support their patients.

Key words: Loneliness ■ Lonely ■ COVID-19 ■ Coronavirus ■ Pandemic

During the first wave of the COVID-19 pandemic the Office for National Statistics reported that 2.6 million adults said they felt lonely and that it had affected their sense of wellbeing (Rees and Large, 2020). The pandemic affected many people's welfare and this issue was termed 'lockdown loneliness' (those people whose welfare was affected in the last 7 days due to feelings of loneliness). These were mostly adults of working age who lived alone and those living with long-term health conditions (Rees and Large, 2020).

Loneliness is a subjective, unwelcome feeling of a lack or loss of companionship that is unique to each person (Perlman and

Peplau, 1981). For example, a person can live alone and may never feel lonely and someone who lives with many people may frequently feel lonely. A person can be situationally lonely, which means they are lonely due to a change in life circumstances such as a recent bereavement or health issues (Young et al, 1982). Periods of loneliness can be short or long. Some people may have persistent feelings of loneliness that can be pervasive and chronic for two or more years. Older lonely people are more likely to attend emergency departments and frequent GP surgeries (The Health Foundation, 2018; Sirois and Owens, 2023). In addition, individuals may not want to disclose their feelings of loneliness due to self-dislike and the perceived stigma associated with loneliness (Ypsilanti et al, 2020). Assessing and managing loneliness can be challenging for health professionals. This article explores the fundamental issues and seeks to help nurses identify who may be at risk and how to manage this complex issue.

What is loneliness?

Loneliness is difficult to accurately define. Several theories and definitions have been put forward in an attempt to explain loneliness (*Table 1*). Early theorists described loneliness as a universal human experience (Moustakas, 1961). Others described loneliness as a negative emotion that creates a yearning or need. Weiss suggested that humans need a series of relationships that are essential to prevent loneliness (Weiss, 1973). According to Weiss, loneliness is either 'intimate' due to a lack of family ties or a partner or 'social' due to a lack of friends or work colleagues. Various scales for measuring loneliness have been created and evaluated (Russell et al, 1978, Russell, 1996; DiTommaso and Spinner, 1997). An alternative theory defines loneliness as being created from a person's cognitive processes. In this theory, loneliness is a human thought pathway that evaluates the quality and quantity of relationships. Loneliness is the distress felt if there is a mismatch or perceived deficiency between actual and desired connections (Peplau and Perlman, 1982). These theories form the basis for measures of loneliness (de Jong-Gierveld, 1998). Other more contemporary theories suggest loneliness has a behavioural function determined by the immune system and therefore has an evolutionary function (Cacioppo et al, 2014). In this theory, feelings of loneliness initiate physiological responses (like pain or hunger) to instruct a person to behave in a certain way for survival. Inflammatory markers produced in the body instruct the person to separate from others to protect the herd. Thus, people may feel various

Laura Michelle Makey, Senior Lecturer, College of Health, Wellbeing and Life Sciences, Sheffield Hallam University, l.makey@shu.ac.uk

Robin P Lewis, Senior Lecturer, College of Health, Wellbeing and Life Sciences, Sheffield Hallam University

Russell Ashmore, Senior Lecturer, College of Health, Wellbeing and Life Sciences, Sheffield Hallam University

Andrea Wigfield, Professor of Applied Social and Policy Research and Director, Centre for Loneliness, College of Health, Wellbeing and Life Sciences, Sheffield Hallam University

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degrees of loneliness due to inherited differences and physiological responses. All the theories demonstrate the complexities involved in understanding why people experience loneliness.

The health impacts of loneliness

Empirical studies show prolonged loneliness has a negative effect on psychological and physical health (Table 2). For example, data collected in the US suggested that, over a 6-year period, lonely people aged 50 years or over had a higher risk of mortality and depression (Luo et al, 2012). Adults without depression at their baseline are more likely to be depressed when reporting loneliness at a 5-year follow up (Beutel et al, 2017). People with long-term mental illnesses who feel lonely for more than 5 months, are at greater risk of admission to inpatient care (Fortuna et al, 2020). There is much evidence to show an increased incidence of newly diagnosed hypertension, cardiovascular disease and stroke for lonely people aged over 50 years (Valtorta et al, 2016). Furthermore, lonely women are at greater risk of death from cardiovascular disease (Novak et al, 2020). An overview of systematic reviews of loneliness and its public health consequences found comparable results, noting the strong links with cardiovascular diseases and mental ill health (Leigh-Hunt et al, 2017). The authors highlighted that little is known about the effects of loneliness on acute illness (Leigh-Hunt et al, 2017).

It has been estimated that loneliness costs UK employers £2.5 billion a year due to the associated health outcomes of the employed lonely person or their lonely relative, causing them time off work for sickness or caring activities (Michaelson et al, 2021).

The strong link between health and loneliness has gained the attention of the UK Government and there is a 'loneliness strategy' for England (Office for Health Improvement and Disparities, 2022). GPs have called for a directory of voluntary services to allow easier access and referral to local groups and voluntary sector schemes (Royal College of General Practitioners (RCGP), 2018). Good practice must be shared. Patient access to loneliness interventions is an ongoing challenge (Department for Digital, Culture, Media and Sport (DDCMS), 2018).

Who is most at risk of loneliness?

There is a common misconception that loneliness only affects older people (British Red Cross and Co-op, 2016). Empirical evidence found the single most striking emergence of loneliness frequency is among the under-25s, as well as the over-65s (Victor and Yang, 2012; Lasgaard et al, 2016; Luhmann and Hawkey, 2016). Therefore, age can be a factor when assessing for loneliness. Additionally, severe loneliness is linked to social factors such as receiving a disability pension or benefits, being unemployed, living alone and receiving long-term psychiatric care (Victor and Yang, 2012; Lasgaard et al, 2016; British Red Cross and Co-op, 2016). More research is needed to investigate how social factors act as barriers to making meaningful connections (Wigfield et al, 2022).

When comparing loneliness across countries, loneliness data revealed insights into societal perceptions and expectations about human connections. A study in association with the BBC's Loneliness Experiment examined the links between society structures, culture and loneliness. Preliminary results suggested

Table 1. Loneliness theories

Author	Theory
Moustakas (1961)	A universal experience that lies dormant within everyone and is a time of great pain but also a time to learn about human compassion
Weiss (1973)	Being without a definite set of relationships such as friends or an intimate partner/family
Peplau and Perlman (1982)	Distress felt when a person's expectations of social connectedness is not met quantitatively or qualitatively
Ernst and Cacioppo (1999)	Chronic loneliness has links to learnt experiences from childhood
Cacioppo et al (2014)	Loneliness is linked to pathophysiological functions and has an evolutionary function for humans

Table 2. Risk factors associated with loneliness

Author	Risk factor
Zeytinoglu et al (2021)	Lonely older people are at increased risk of falls
Fortuna et al (2020)	An increased risk of physical and psychological admissions for people who are lonely and living with serious mental illnesses
Hawkey et al (2010)	Loneliness predicts an increased risk to blood pressure over a 5-year period
Valtorta et al (2016)	A systematic review and meta-analysis of longitudinal studies found lonely people have an increased risk of cardiovascular disease and stroke
Leigh-Hunt et al (2017)	An overview of systematic reviews revealed increased risk of cardiovascular disease and all-cause mortality for people who are socially isolated or lonely. Also, poorer mental health outcomes
Beutel (2017)	Lonely people have an increased risk of depression and anxiety

that individualistic societies (societies likened to the UK, based around achievements and income) have more loneliness and this issue impacts most on younger men (Barreto et al, 2021). Moreover, studies of older adults in southern European countries (often more family-based societies) recorded more loneliness and less resilience in comparison with northern and western European countries (Fokkema et al, 2012). Hence, the research suggested that societal structures and expectations will help better understand modern-day loneliness.

There are substantial levels of loneliness among emerging European adult women living in deprived areas (Lasgaard et al, 2016). For women in the UK, loneliness tends to peak in the 30 to 50 years age group (Victor and Yang, 2012) and for women in Germany in the age range 40 to 80 years (Hawkey et al, 2010). Another group with high levels of loneliness are young adults; however, studies indicate that young men and women differ in the causes and the way they react to feelings of loneliness (Liu et al, 2020). A meta-analysis suggested that different genders experience distinct types of loneliness and this may be due to a range of reasons such as differences in the way people assess their loneliness and differences in how people maintain friendships (Maes et al, 2017; 2019). For example, men may have the same friendships that last throughout their lifetime whereas women may make many and more context-

specific friendships, for example through meeting other new mothers at baby groups.

People identifying as LGBTQ may be more likely to feel lonely as they get older, especially couples and individuals without children (Fish and Weis, 2019). There is emerging evidence to support the view that transgender and non-binary people experience intimate and social loneliness and more research is needed to achieve a greater understanding of their experiences (Anderssen et al, 2020).

Owing to the potential differences in loneliness experiences, future research needs to be context- and population-specific. Only in this way will the causes and solutions to tackling loneliness in modern Britain be fully understood.

Barriers to identifying loneliness

The distinction between loneliness and social isolation is often misunderstood. Loneliness is seen as a subjective state and social isolation as an objective condition. It is important to note that not all socially isolated people are lonely (Holt-Lunstad et al, 2015). Loneliness research suggests that the quality of connection is important. An older person living alone may feel lonely when visited by family members and this response is because the connection may feel more about duty and less about meaningful connection (Pinquart and Sorensen, 2001). Furthermore, variations in the expectations of both the quality and quantity of connections exist based on age. Older people (over 65 years) tend to value the quality of relationships whereas young adults (under 25 years) tend to value quantity (Victor and Yang, 2012).

Assessing loneliness can be challenging because there is a degree of under-reporting. Research examining the frequency of loneliness among men and women has shown men are less likely to report loneliness when asked directly. However, when indirect methods of questioning were used, similar levels of loneliness were revealed by both sexes (Richard et al, 2017).

Loneliness and the pandemic

During the COVID-19 pandemic, research found that older adults had increased levels of anxiety and insomnia (Wong et al, 2020). Results were significant in people with four or more long-term conditions. Reports also suggested that older adults felt scared and lonely (Age UK, 2020). Consequently, older people were known to lose interest in everyday activities, had a general apathy, increased muscle weakness and an increased risk of cognitive decline. Younger people were at greater risk of experiencing a mental illness, such as severe depression (Loades et al, 2020). Enforced quarantine seemed to have the greatest impact on young adults. The weeks and months of lockdown were significantly associated with severe loneliness in young people who demonstrated avoidant coping strategies such as emotional disengagement and denial (Sampogna et al, 2021). Sociodemographic variables were significant in predicting loneliness during the pandemic. Research among 31 000 adults both before and during the pandemic discovered that the risk factors for loneliness remained nearly identical to the pre-pandemic period. This evidence suggests that feelings of loneliness were intensified in those young people who were

already at risk (Bu et al, 2020). Furthermore, young adults studying at higher education institutions were at an elevated risk of loneliness and associated mental illness outcomes. Other groups at risk were people discharged from psychiatric care facilities (Chang et al, 2020) and individuals living with cancer (Gallagher et al, 2021). The British Red Cross (2020) found that people with conditions that meant they needed to shield during the pandemic continued to shield long after the restrictions were lifted. The long-term impact of living with a shielding condition during and after the COVID-19 pandemic has not been thoroughly researched and understood (British Red Cross, 2020). Likewise, the long-term impact on young adults is yet to fully emerge and health professionals need to be vigilant to assess if loneliness has had a significant health impact. One report suggested the pandemic has increased loneliness levels in the UK and local resources should have the capacity to ensure those most at risk of loneliness are able to access the emotional support they need (British Red Cross, 2020).

Impact on health professionals

The stress and burden of increasing demands on health professionals during the pandemic cannot be ignored. All health professionals were at a greater risk of mental ill health and associated loneliness due to increased unprecedented stress involved in making complex and difficult decisions at this time (Royal College of Nursing (RCN), 2021). Staff in all sectors were risking their own health alongside providing effective and compassionate care. Meanwhile, they were dealing with personal and moral challenges such as managing childcare and worrying about bringing COVID-19 home to their families. Many health professionals experienced trauma-related stress and were forced to self-isolate, resulting in reduced social support that further impacted sleep and acute stress reactions (Benfante et al, 2020). The impact and emotional burden has not been fully researched and the mental health of health professionals should be an ongoing priority for healthcare managers (While and Clark, 2021).

Interventions

Community nurses remain crucial in supporting patients with the emotional and physical burden of loneliness (Green et al, 2020). The National Loneliness Strategy aims to support clinical commissioning groups and GP practices to identify, use and create integrated community and asset-based services (Jopling and Howells, 2018). There are a range of recommendations and evidence-based interventions that take the form of preventive, restorative or responsive interventions (British Red Cross and Co-op, 2016). An increased awareness of risk factors and early interventions can help mitigate loneliness. For example, the early identification of life transitions (such as retirement or moving cities) and awareness of how people would benefit from preventive interventions. Responsive, person-centred interventions can greatly support individuals. For example, older men better engage with interventions that appeal to male roles such as those that have responsibility and provide for others (Ratcliffe et al, 2019). Psychological interventions based around 'changing cognitions' are viewed as the most effective as they serve to help people understand their feelings of loneliness

and improve their confidence (Mann et al, 2017). Other effective interventions are services that assign welfare officers to provide support, advice and information to help people make meaningful connections with others (Sander, 2005). There are many local charitable and third sector organisations that have specific interventions for older people such as 'befriending' groups or one-to-one interventions such as weekly phone calls from Age UK (2023) or The Silver Line (2023).

Engaging with social media was used as a coping strategy by many adolescents during the pandemic. They reported it was effective in decreasing anxiety but less effective for tackling loneliness (Cauberghe et al, 2021).

It is suggested there is a lack of high-quality interventions to tackle loneliness (Masi et al, 2011; Cohen-Mansfield and Perach, 2015). Siva (2020) called for evidence-based interventions in schools to help support adolescent mental health and wellbeing. More research specific to ages, populations and contexts will increase understanding of the barriers and opportunities to develop meaningful connections and help tackle loneliness. With greater knowledge and more sharing of good practice, more person-centred interventions can be implemented (DDCMS, 2018).

Conclusions

Loneliness is a complex human emotion that can become persistent and have strong associations with ill health (Luo et al, 2012; Valtorta et al, 2016; Beutel et al, 2017; Leigh-Hunt et al, 2017; Novak et al, 2020; Fortuna et al, 2020). Theories suggest loneliness is linked to the human need for intimate and social relationships (Weiss, 1973). Others suggest loneliness is a social perspective that shapes expectations about the quality and quantity of connections (Peplau and Perlman, 1982). There are instruments that are valid in measuring severity and types of loneliness (Russell et al 1978; Russell, 1996; DiTommaso and Spinner, 1997; de Jong Gierveld, 1998). The UK Government has a strategy for loneliness and health professionals are encouraged to prescribe interventions for lonely people and for those at risk of becoming lonely (DDCMS, 2018). Therefore, it is important to know who is at risk of persistent loneliness and to recognise the risk of under-reporting due to stigma (Ypsilanti, et al, 2020).

Empirical evidence suggests that loneliness frequency correlates to age (Victor and Yang, 2012; Lasgaard et al, 2016; Luhmann and Hawkey, 2016) and severity of loneliness is linked to intersectional social factors such as disability (Victor and Yang, 2012; Lasgaard et al, 2016). Men, women, and transgender people may experience and respond to loneliness differently (Maes et al, 2017; 2019; Anderssen et al, 2020). During the pandemic, loneliness was significant in people with multiple long-term conditions (Rees and Large, 2020). Older people experienced general apathy and muscle weakness (Age UK, 2020). Younger people were at higher risk of depression, anxiety and mental illness (Bu et al, 2020).

Since the pandemic, healthcare workers have been faced with an elevated risk of work-related demands due to caring for individuals experiencing chronic loneliness and its implications (RCN, 2021). Managers and health professionals need to be conscious of the ongoing burden on staff following the pandemic. Current evidence-based interventions to combat loneliness are person centred (Ratcliffe et al, 2019) one-to-one cognitive

KEY POINTS

- Loneliness is a subjective experience that has strong links to physical and mental illnesses
- Those most affected by loneliness in the pandemic were older adults, young adults and people with multiple comorbidities
- Healthcare workers were at risk of loneliness due to work demands, enforced isolation and difficult decision making and may be experiencing long-term stress-related consequences
- People may not report they are lonely because of shame or stigma
- More evidence-based, person-centred interventions are needed

therapies (Mann et al, 2017) and the appointment of wellbeing officers (Sander, 2005). There is a need for more evidence-based interventions, so nurses can understand more about effective and person-centred interventions to combat loneliness. **BJN**

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- Age UK. The impact of COVID-19 to date on older people's mental and physical health. 2020. <http://tinyurl.com/58sydhz6> (accessed 22 January 2024)
- Age UK. Age UK telephone friendship. 2023. <http://tinyurl.com/mrxue8d5> (accessed 22 January 2024)
- Anderssen N, Sivertsen B, Lønning KJ, Malterud K. Life satisfaction and mental health among transgender students in Norway. *BMC Public Health*. 2020;20(1):138. <https://doi.org/10.1186/s12889-020-8228-5>
- Barreto M, Victor C, Hammond C, Eccles A, Richins MT, Qualter P. Loneliness around the world: age, gender, and cultural differences in loneliness. *Pers Individ Dif*. 2021;169:110066. <https://doi.org/10.1016/j.paid.2020.110066>
- Benfante A, Di Tella M, Romeo A, Castelli L. Traumatic stress in healthcare workers during COVID-19 pandemic: a review of the immediate impact. *Front Psychol*. 2020;11:569935. <https://doi.org/10.3389/fpsyg.2020.569935>
- Beutel ME, Klein EM, Brähler E et al. Loneliness in the general population: prevalence, determinants and relations to mental health. *BMC Psychiatry*. 2017;17(1):97. <https://doi.org/10.1186/s12888-017-1262-x>
- British Red Cross, Co-op. Trapped in a bubble. An investigation into triggers for loneliness in the UK. 2016. <http://tinyurl.com/y87w4caj> (accessed 22 January 2024)
- British Red Cross. Lonely and left behind. 2020. <http://tinyurl.com/mr3ccbbz> (accessed 22 January 2024)
- Bu F, Steptoe A, Fancourt D. Who is lonely in lockdown? Cross-cohort analyses of predictors of loneliness before and during the COVID-19 pandemic. *Public Health*. 2020;186:31–34. <https://doi.org/10.1016/j.puhe.2020.06.036>
- Cacioppo JT, Cacioppo S, Boomsma DI. Evolutionary mechanisms for loneliness. *Cogn Emotion*. 2014;28(1):3–21. <https://doi.org/10.1080/02699931.2013.837379> (accessed 22 January 2024)
- Cauberghe V, Van Wesenbeeck I, De Jans S, Hudders L, Ponnet K. How adolescents use social media to cope with feelings of loneliness and anxiety during COVID-19 lockdown. *Cyberpsychol Behav Soc Netw*. 2021;24(4):250–257. <https://doi.org/10.1089/cyber.2020.0478>
- Chang EC, Tian W, Jiang X et al. Beyond the role of loneliness in psychological ill-being and well-being in females: do social problem-solving processes still matter? *Personality and Individual Differences*. 2020;155:109729. <https://doi.org/10.1016/j.paid.2019.109729>
- Cohen-Mansfield J, Perach R. Interventions for alleviating loneliness among older persons: a critical review. *Am J Health Promot*. 2015;29(3):e109–e125. <https://doi.org/10.4278/ajhp.130418-LIT-182>
- Department for Digital, Culture, Media and Sport. A connected society: a strategy for tackling loneliness. 2018. <http://tinyurl.com/mu2nsvk7> (accessed 22 January 2024)
- de Jong Gierveld JJ. A review of loneliness: concept and definitions, determinants and consequences. *Reviews in Clinical Gerontology*. 1998;8(1):73–80. <https://doi.org/10.1017/S0959259898008090>
- DiTommaso E, Spinner B. Social and emotional loneliness: a re-examination of Weiss' typology of loneliness. *Personality and Individual Differences*. 1997;22(3):417–427. [https://doi.org/10.1016/S0191-8869\(96\)00204-8](https://doi.org/10.1016/S0191-8869(96)00204-8)
- Ernst JM, Cacioppo JT. Lonely hearts: psychological perspectives on loneliness. *Applied and Preventive Psychology*. 1999;8(1):1–22. [https://doi.org/10.1016/S0962-1849\(99\)80008-0](https://doi.org/10.1016/S0962-1849(99)80008-0)
- Fish J, Weis C. All the lonely people, where do they all belong? An interpretive synthesis of loneliness and social support in older lesbian, gay and bisexual

CPD reflective questions

- What are the impacts of loneliness on health?
- What are the different types of loneliness and how is it possible to identify a lonely person?
- What are the barriers to assessing for loneliness?
- What evidence-based interventions are there to help lonely people? Are there any local interventions in your area of practice?

- communities. *Quality in Ageing and Older Adults*. 2019;20(3):130–142. <https://doi.org/10.1108/QAOA-10-2018-0050>
- Fokkema T, De Jong Gierveld J, Dykstra PA. Cross-national differences in older adult loneliness. *Journal of Psychology*. 2012;146(1–2):201–228. <https://doi.org/10.1080/00223980.2011.631612>
- Fortuna KL, Brusilovskiy E, Sneathen G, Brooks JM, Townley G, Salzer MS. Loneliness and its association with physical health conditions and psychiatric hospitalizations in people with serious mental illness. *Soc Work Ment Health*. 2020;18(5):571–585. <https://doi.org/10.1080/15332985.2020.1810197>
- Gallagher S, Bennett KM, Roper L. Loneliness and depression in patients with cancer during COVID-19. *J Psychosoc Oncol*. 2021;39(3):445–451. <https://doi.org/10.1080/07347332.2020.1853653>
- Green J, Doyle C, Hayes S et al. COVID-19 and district and community nursing. *Br J Community Nurs*. 2020;25(5):213. <https://doi.org/10.12968/bjcn.2020.25.5.213>
- Hawkey LC, Thisted RA, Masi CM, Cacioppo JT. Loneliness predicts increased blood pressure: 5-year cross-lagged analyses in middle-aged and older adults. *Psychol Aging*. 2010;25(1):132–141. <https://doi.org/10.1037/a0017805>
- The Health Foundation. Older people living alone are 50% more likely to visit A and E than those who live with others. 2018. <http://tinyurl.com/yck5n8er> (accessed 22 January 2024)
- 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):227–237. <https://doi.org/10.1177/1745691614568352>
- Jopling K, Howells A; British Red Cross Co-op. Connecting communities to tackle loneliness and social isolation. 2018. <http://tinyurl.com/yc7wffwy> (accessed 22 January 2024)
- Lasgaard M, Friis K, Shevlin M. 'Where are all the lonely people?' A population-based study of high-risk groups across the life span. *Soc Psychiatry Psychiatr Epidemiol*. 2016;51(10):1373–1384. <https://doi.org/10.1007/s00127-016-1279-3>
- Leigh-Hunt N, Bagguley D, Bash K et al. An overview of systematic reviews on the public health consequences of social isolation and loneliness. *Public Health*. 2017;152:157–171. <https://doi.org/10.1016/j.puhe.2017.07.035>
- Liu H, Zhang M, Yang Q, Yu B. Gender differences in the influence of social isolation and loneliness on depressive symptoms in college students: a longitudinal study. *Soc Psychiatry Psychiatr Epidemiol*. 2020;55(2):251–257. <https://doi.org/10.1007/s00127-019-01726-6>
- Loades ME, Chatburn E, Higson-Sweeney N et al. Rapid systematic review: the impact of social isolation and loneliness on the mental health of children and adolescents in the context of COVID-19. *J Am Acad Child Adolesc Psychiatry*. 2020;59(11):1218–1239.e3. <https://doi.org/10.1016/j.jaac.2020.05.009>
- Luhmann M, Hawkey LC. Age differences in loneliness from late adolescence to oldest old age. *Dev Psychol*. 2016;52(6):943–959. <https://doi.org/10.1037/dev0000117>
- Luo Y, Hawkey LC, Waite LJ, Cacioppo JT. Loneliness, health, and mortality in old age: a national longitudinal study. *Soc Sci Med*. 2012 Mar;74(6):907–914. <https://doi.org/10.1016/j.socscimed.2011.11.028>
- Maes M, Vanhalst J, Van den Noortgate W, Goossens L. Intimate and relational loneliness in adolescence. *Journal of Child and Family Studies*. 2017;26(8):2059–2069. <https://doi.org/10.1007/s10826-017-0722-8>
- Maes M, Qualter P, Vanhalst J, Van den Noortgate W, Goossens L. Gender differences in loneliness across the lifespan: a meta-analysis. *European Journal of Personality*. 2019;33(6):642–654. <https://doi.org/10.1002/per.2220>
- Mann F, Bone JK, Lloyd-Evans B et al. A life less lonely: the state of the art in interventions to reduce loneliness in people with mental health problems. *Soc Psychiatry Psychiatr Epidemiol*. 2017;52(6):627–638. <https://doi.org/10.1007/s00127-017-1392-y>
- Masi CM, Chen HY, Hawkey LC, Cacioppo JT. A meta-analysis of interventions to reduce loneliness. *Pers Soc Psychol Rev*. 2011;15(3):219–266. <https://doi.org/10.1177/1088868310377394>
- Michaelson J, Jeffrey K, Abdallah S; New Economics Foundation. The cost of loneliness to UK employers. 2021. <http://tinyurl.com/38mwnhjs> (accessed 22 January 2024)
- Moustakas C. The sense of self. *Journal of Humanist Psychology*. 1961;1(1):20–34. <https://doi.org/10.1177/002216786100100104> (accessed 22 January 2024)
- Novak M, Waern M, Johansson L et al. Cardiovascular and all-cause mortality attributable to loneliness in older Swedish men and women. *BMC Geriatr*. 2020;20(1):201. <https://doi.org/10.1186/s12877-020-01603-x>
- Office for Health Improvement and Disparities. Social prescribing: applying All Our Health. 2022 (updated from 2019). <http://tinyurl.com/43nyz3nv> (accessed 22 January 2024)
- Perlman D, Peplau LA. Toward a social psychology of loneliness. In: Duck S, Gilmour R (eds). *Personal relationship in disorder*. 1st edn. Academic Press; 1981: 32–54. ISBN: 012228030
- Peplau L, Perlman D (eds). *Loneliness: a sourcebook of current theory, research and therapy*. Wiley; 1982. ISBN: 0471080284
- Pinquart M, Sorensen S. Influences on loneliness in older adults: a meta-analysis. *Basic and Applied Social Psychology*. 2001;23(4):245–266. https://doi.org/10.1207/S15324834BASP2304_2
- Ratcliffe J, Wigfield A, Alden S. 'A lonely old man': Empirical investigations of older men and loneliness, and the ramifications for policy and practice. *Ageing and Society*. 2019;41(4):794–814. <https://doi.org/10.1017/S0144686X19001387>
- Rees E, Large R; Office for National Statistics. Coronavirus and loneliness, Great Britain: 3 April to 3 May 2020. <http://tinyurl.com/76vj62bx> (accessed 22 January 2024)
- Richard A, Rohrmann S, Vandeleur CL, Schmid M, Barth J, Eichholzer M. Loneliness is adversely associated with physical and mental health and lifestyle factors: results from a Swiss national survey. *PLoS One*. 2017;12(7):e0181442. <https://doi.org/10.1371/journal.pone.0181442>
- Royal College of General Practitioners. Tackling loneliness – a community action plan. 2018. <http://tinyurl.com/3p3pcjde> (accessed 22 January 2024)
- Royal College of Nursing. SenseMaker: the lived experience of nursing in Northern Ireland during a pandemic 2020/2021. 2021. <http://tinyurl.com/3r9ym2wa> (accessed 22 January 2024)
- Russell DW. UCLA Loneliness Scale (version 3): reliability, validity, and factor structure. *J Pers Assess*. 1996;66(1):20–40. https://doi.org/10.1207/s15327752jpa6601_2
- Russell D, Peplau LA, Ferguson ML. Developing a measure of loneliness. *J Pers Assess*. 1978;42(3):290–4. https://doi.org/10.1207/s15327752jpa4203_11
- Sampogna G, Giallonardo V, Del Vecchio V et al. Loneliness in Young adults during the first wave of COVID-19 lockdown: results from the multicentric COMET study. *Front Psychiatry*. 2021;12:788139. <https://doi.org/10.3389/fpsy.2021>
- Sander R. Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions. *Nurs Older People*. 2005;17(1):40. <https://doi.org/10.7748/nop.17.1.40.s11>. PMID: 27736564.
- Sirois FM, Owens J. A meta-analysis of loneliness and use of primary health care. *Health Psychol Rev*. 2023;17(2):193–210. <https://doi.org/10.1080/17437199.2021.1986417>
- Siva N. Loneliness in children and young people in the UK. *Lancet Child Adolesc Health*. 2020;4(8):567–568. [https://doi.org/10.1016/S2352-4642\(20\)30213-3](https://doi.org/10.1016/S2352-4642(20)30213-3)
- The Silver Line. Who we are. 2023. <https://www.thesilverline.org.uk/who-we-are/> (accessed 22 January 2024)
- Valtorta NK, Kanaan M, Gilbody S, Ronzi S, Hanratty B. Loneliness and social isolation as risk factors for coronary heart disease and stroke: systematic review and meta-analysis of longitudinal observational studies. *Heart*. 2016;102(13):1009–1016. <https://doi.org/10.1136/heartjnl-2015-308790>
- Victor C, Yang K. The prevalence of loneliness among adults: a case study of the United Kingdom. *Journal of Psychology*. 2012;146:85–104. <https://doi.org/10.1080/00223980.2011.613875>
- Weiss R. *Loneliness. The experience of emotional and social isolation*. MIT Press; 1973. ISBN: 0262730413
- While AE, Clark LL. Management of work stress and burnout among community nurses arising from the COVID-19 pandemic. *Br J Community Nurs*. 2021;26(8):384–389. <https://doi.org/10.12968/bjcn.2021.26.8.384>
- Wigfield A, Turner R, Alden S, Green M, Karania V. Developing a new conceptual framework of meaningful interaction for understanding social isolation and loneliness. *Social Policy and Society*. 2022;21(2):172–193. <https://doi.org/10.1017/S147474642000055X>
- Wong S, Zhang D, Sit R. Impact of COVID-19 on loneliness, mental health, and health service utilisation: a prospective cohort study of older adults with multimorbidity in primary care. *British Journal of General Practice*. 2020;70:e817–e824. <https://doi.org/10.3399/bjgp20X713021>
- Young JA, Perlman D, Peplau L. Loneliness, depression and cognitive therapy. In: Peplau L, Perlman D (eds). *Loneliness: a sourcebook of current theory, research, and therapy*. Wiley; 1982. ISBN: 0471080284
- Ypsilanti A, Robson A, Lazuras L, Powell PA, Overton PG. Self-disgust, loneliness and mental health outcomes in older adults: An eye-tracking study. *J Affect Disord*. 2020;266:646–654. <https://doi.org/10.1016/j.jad.2020.01.166>
- Zeytinoglu M, Wroblewski KE, Vokes TJ, Huisingh-Schetz M, Hawkey LC, Huang ES. Association of loneliness with falls: a study of older adults using the National Social Life, Health, and Aging Project. *Gerontol Geriatr Med*. 2021;7:2333721421989217. <https://doi.org/10.1177/2333721421989217>