The adverse effects of social isolation and loneliness on psychological and physical health outcomes in care home residents during Covid-19

Social isolation (the absence or near absence of social connections or relationships) and loneliness (the extent to which someone feels socially isolated or unhappy about their social relationships) are conceptually distinct, but related constructs[1]. There is evidence for a consistent association between these constructs and adverse health outcomes, particularly in relation to cardiovascular health[2–4], mortality [1,5], and mental health[6 7]. Determining causality is problematic as much of the research in this area involves observational studies[8]. This briefing considers the evidence for the adverse health effects of social isolation and loneliness in the general population and care home settings. In light of the current COVID-19 crisis and imposed physical distancing measures, we also consider interventions to mitigate the risk of adverse health events due to social isolation and loneliness in care home settings. We conducted an initial search of literature in Google Scholar and this was followed by a more formal search for evidence from systematic reviews in MEDLINE (Ovid) (Appendix A). We would emphasise the rapid nature of the review conducted and the caveats this implies.

Evidence for an association between social isolation/loneliness and adverse health events

There is strong evidence in the form of systematic reviews for an association between social isolation and loneliness and ill-health in the general population. A 2017 overview of 40 systematic reviews[8] (mainly of observational studies) identified evidence from two meta-analyses for a significant association between social isolation and loneliness and increased all-cause mortality. Odds ratios (ORs) show an increased likelihood of mortality for social isolation of 1.29 (95%Confidence Interval (CI); 1.06, 1.56), and an increased likelihood of mortality for loneliness of 1.26 (95% CI; 1.04, 1.53).Good social connections are protective with hazard ratios (HR) for all-cause mortality for greater social participation of HR=0.87 (95% CI 0.82, 0.91) and for better social networks of HR=0.91 (95% CI 0.86, 0.97). A 2018 meta-analysis supports the findings in relation to loneliness and mortality, with loneliness identified as a risk factor in all-cause mortality (pooled HR=1.22; 95% CI 1.10, 1.35)[9]. Less robust evidence from narrative systematic reviews suggest associations with poorer mental health outcomes[8]. Recent evidence from national surveys in Switzerland[6] and Singapore[7] suggest loneliness is related to depression in adults of all ages. Furthermore, recent evidence from a systematic review and meta-analysis found that loneliness was positively associated with an increased risk of dementia (RR=1.26; 95% CI=1.14, 1.40), although the association with mild cognitive impairment remains unclear[10]. These findings are particularly concerning in the context of care homes as a recent meta-analysis on the prevalence of loneliness in people living in residential and care home settings estimated mean prevalence of moderate loneliness at 61%, and mean prevalence of severe loneliness at 35%[11]. Specific evidence on adverse health outcomes and mortality in relation to social isolation and loneliness in care homes is lacking. A systematic review of 18 studies found prevalence rates of loneliness, anxiety and depression were generally high in long-term care settings[12], however the specific association between loneliness and mental health outcomes was not addressed. Social isolation and loneliness may have been a problem for many community-dwelling older adults and care home residents prior to the COVID-19 pandemic, but this has likely been exacerbated due to social distancing measures and the cessation of care home visits[13,14]. Although there is currently no direct evidence for the negative impact

COVID-19 social distancing measures may have on the health of care home residents, these measures are likely to have led to an increased sense of isolation and loneliness[15,16], which as indicated above are established risk factors in mortality, cardiovascular disease, depression, and dementia in the general population.

Interventions to mitigate risk of adverse health events due to social isolation and loneliness in care homes

In the context of the COVID-19 pandemic, many experts in the field of ageing have highlighted the risk of isolation and loneliness and have emphasised the importance of providing interventions to increase social connectivity in care homes, as well as the general population. As family are not permitted to visit care homes, this is likely to increase the isolation of residents. In addition, many care homes have cancelled group activities and communal dining which may further exacerbate isolation and feelings of loneliness[17]. Digital solutions, such as tablet devices, could be used to support social connections, as they can be used by staff as well as family members to support and communicate with residents via video calls[15,18]. However, technology may not be suitable for all residents, particularly those with dementia[13]. Social workers can also play a role in providing regular updates on residents to family members who may be concerned about their well-being[18]. Regular and meaningful telephone conversations to ensure the needs of older people are being met could be provided by family members, friends, local charities or voluntary organisations, while mail deliveries in the form of parcels, cards, and letters could help ensure older people feel connected to the outside world[19]. There is currently no evidence for the effectiveness of these interventions in care homes in the context of COVID-19. However, a recent study highlighted the positive effects of a social networking intervention in reducing social isolation and mortality rates in Italian community-based older adults during COVID-19[20], suggesting social connections can be facilitated in the context of such a pandemic. The NIHR Older People and Frailty Policy Research Unit recently reviewed effectiveness of remote delivery of befriending, social support and low intensity psychosocial interventions, in reducing social isolation and loneliness among older adults and identified components of successful interventions which could be implemented[21].

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Appendix A – Search Strategy

Google Scholar keywords/terms

Combinations of the following keywords/terms were searched:

1. social isolation
2. loneliness
3. adverse health events
4. mortality
5. social distancing
6. care homes
7. residential care
8. nursing homes
9. COVID-19

MEDLINE (Ovid) Search Strategy

Search was limited to systematic reviews (96 results):

1. Social Isolation/
2. Loneliness/
3. Mental Health/
4. Mortality/
5. "Quality of Life"/
6. Health Status/
7. Cardiovascular Diseases/
8. adverse events.mp.
9. "Activities of Daily Living"/
10. Aged/ or Aging/ or "Aged, 80 and over"/
11. Nursing Homes/ or care home residents.mp. or Homes for the Aged/
12. 1 or 2
13. 3 or 4 or 5 or 6 or 7 or 8 or 9
14. 10 or 11
15. 12 and 13 and 14