

## **Using remote interventions in promoting the health of frail older persons following the COVID-19 lockdown: challenges and solutions**

In light of the Covid-19 pandemic, many older people across the world are being asked to self-isolate to protect their health. This has led to a rapid reconfiguration of health promotion services, which are diverse in focus, and may include exercise, dietary interventions or psychosocial interventions, towards remote delivery, for example by phone or using computers. Whilst currently they are unable to be safely delivered any other way, there are concerns that these remote interventions may replace face-to-face interventions beyond the end of social restrictions. We advocate caution with taking this forward, particularly for frailer older people.

Evidence of effectiveness for remote interventions for frail older people is promising, but very limited at present. Small randomised controlled trials have shown positive impacts upon quality of life from video exercises with weekly phone calls,<sup>1</sup> improved mental functioning from computer-based home exercises,<sup>2</sup> improved balance from home exercise with phone calls<sup>3</sup> and reduced depression from problem solving therapy delivered by videoconferencing.<sup>4</sup> Similarly, for malnourished older people, phone-based nutrition interventions with dieticians improved protein intake and quality of life but not other outcomes in one systematic review of nine studies.<sup>5</sup> However, despite an increase in research on this topic over the last five years, these interventions are rarely compared to face-to-face delivery and small sample sizes often limits the power and generalisability of these studies. Most also included a face-to-face session with a healthcare professional to assess and plan treatment beforehand,<sup>1,3,5</sup> an orientation meeting to ensure the technology works<sup>2</sup> or both.<sup>4</sup>

Use of remote interventions therefore needs to facilitate rather than replace contacts with healthcare professionals. Phone-based support may be particularly applicable to a population with less internet and computer access, and may improve adherence to independent exercise programmes<sup>3,6</sup> as well as being used for intervention delivery.<sup>5</sup> Videoconferencing for psychological

therapies also showed comparable effects to face-to-face delivery with similar numbers of people completing sessions (49/56 vs 54/63).<sup>4</sup> One systematic review found that mobile health technologies for older people are more acceptable when they facilitate communication with a healthcare provider rather than disrupt it,<sup>7</sup> and a cohort study found that frail older people using teleassistance at home who took up additional specialist telecounselling were almost twice as likely to complete the study after one year (94% vs 44%).<sup>8</sup>

There are also known access issues. A recent population-based Finnish study suggested that frail older people are less likely than robust older people to have an internet connection (46% vs 79%), to have used the internet in the last 3 months (34% vs 72%) and have used a computer in the last 12 months (30% vs 70%).<sup>9</sup> They also found that frail older people are more likely to hold negative opinions about the usefulness and usability of mobile ICT. This risks a large proportion of the population being excluded. Whilst there is clear evidence of high acceptability scores for remote interventions in those who complete studies,<sup>2,4,6</sup> these can also suffer from high dropout rates, particularly when unsupervised,<sup>3,6</sup> are evaluated mainly for short term interventions and typically lack generalisability to wider populations.

Services wishing to use remote delivery must therefore ensure the necessary technology is provided to overcome access barriers, and that its use is supported. Studies have indicated that it is possible to provide equipment such as tablets, laptops or devices connected to the TV,<sup>4,5,10</sup> however studies also frequently report technical failures even in pilot studies, which can be associated with dropouts.<sup>6</sup> Technical support was frequently utilised in feasibility studies, indicating that providing this is an important part of remote intervention delivery.

In conclusion, whilst these interventions are potentially effective and received positively by some frail older people, those evaluating or providing services should ensure that digitally underserved older people are not left behind through facilitating contact with healthcare professionals and providing both the technology and technical support needed for interventions to be successful.

## Conflict of interest

The authors state that there are no conflicts of interest.

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