Diets, exercise and digital approaches may improve frailty, social isolation or loneliness in older adults

Exercise alone and in combination with diet may prevent frailty and improve social functioning in community-dwelling older adults. Similarly, digital tools like connecting with others through the internet may be effective in reducing loneliness. However, there is no clear evidence that such programmes are effective in groups including the LGBTQ2+ community and ethnic minorities.

What is the aim of this review?
This review of reviews summarises evidence on the effectiveness of interventions aimed at improving social isolation, loneliness and frailty among older adults. It also identifies gaps in evidence where further systematic review evidence is needed.

What is this review of reviews about?
Social isolation, loneliness and frailty are a serious public health risks that affect many older adults, specifically people living in their own homes. Several interventions have been proposed to reduce these vulnerabilities. However, the effectiveness of these interventions is inconsistent in the general population, and unknown in specific populations.

What studies are included?
We included 27 reviews that were comprised of 372 unique primary studies. The vast majority of the reviews included studies that were conducted in high-income countries. Most reviews talked about either social isolation or loneliness.

Half of the reviews included studies with simple interventions, while the other half were more complicated, with many components.

Many of the studies had important weaknesses.

What are the main findings of this review?
Systematic reviews suggest that exercise combined with nutritional supplementation have the highest odds of decreasing frailty, compared to nutritional supplementation of proteins alone at 3-4 months of follow-up.

Similarly, grip strength significantly improves when participants exercise and take protein supplements. Physical activity interventions also improve social functioning and reduce social isolation and loneliness.

There is a lot of conflicting evidence and inadequate reporting of results to determine effectiveness.
We were unable to find studies that looked at minority groups.

**What do the findings of this review mean?**

Even though there is evidence in support of some interventions, only a small number of reviews systematically compared effects of interventions on social isolation and loneliness.

More studies are needed addressing other vulnerable groups or older adults living with vulnerabilities. This would allow for more definitive recommendations regarding the effectiveness of interventions for reducing frailty, social isolation and loneliness.