

# The impact on loneliness of targeted psychological interventions delivered on a digital platform.

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## Introduction

Loneliness is described as a distressing experience that occurs when the quantity and, in particular, quality, of a person's social relations are less than desired. Loneliness is linked to an array of public health concerns. Stringent restrictions imposed during the COVID19 pandemic emphasised the impact of loneliness on the population, and accentuated a need for effective remote/digital interventions to manage loneliness. Psychological interventions including mindfulness therapy and cognitive behavioural therapy (CBT) have been proven effective against loneliness. This review aimed to identify the effective psychological interventions to reduce loneliness which can be delivered on a digital platform, in accordance with the COVID19 restrictions.

## Aims

To identify effective psychological interventions to reduce loneliness delivered on a digital platform using rapid systematic review methodology.

## Methods

Database searches in MEDLINE, PsychINFO, CINAHL, Embase and Web of Science were conducted from inception to July 2021.

Eligibility criteria:

1. Participants > 18 in a non-hospital setting,
2. Psychological intervention for loneliness delivered on a digital platform,
3. Use of a relevant control group,
4. Use of a quantitative measure of loneliness.

Two authors independently used the PICO framework and Cochrane Risk of Bias Tool to assess articles.

Figure 1: PRISMA Flow Diagram

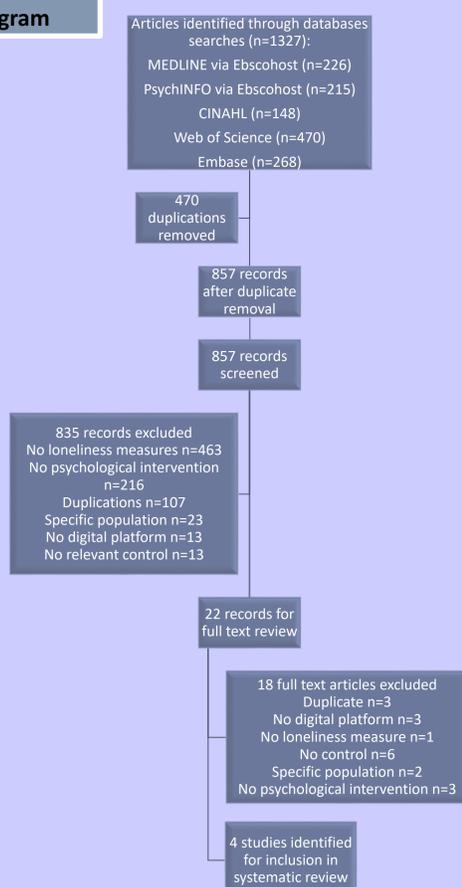


Table 1: Articles included in final review

Citation	Type of Study	Quality of Evidence	Intervention Method	Population	Sample Size	Outcome Measure	Results
Lindsay <i>et al.</i> , 2019	RCT	Moderate	Smartphone-based mindfulness intervention using WhatsApp.	Stressed adults Mean Age (SD) = 32 (14) 67.32% female	N=153	UCLA Loneliness Scale	Smartphone based mindfulness training reduces loneliness in daily life compared with an active control programme.
Kall <i>et al.</i> , 2021	RCT	Moderate	Internet intervention based on either CBT or interpersonal psychotherapy.	Lonely Adults Mean Age (SD) = 47.5 (16.4)	N=170	UCLA Loneliness Scale	CBT results in a significantly larger reduction in loneliness compared to other psychological therapies.
Bruehlman-Senecal <i>et al.</i> , 2020	RCT	Strong	Access to "NOD" mobile app incorporating positive psychology, mindfulness-based self-compassion and cognitive behavioural skill-building exercises.	First year university students Mean Age (SD) = 18.68 (0.35)	N=221	UCLA Loneliness Scale	Smartphone app can provide self-paced and confidential support to people at key social transitional phases of life, such as going to university.
Jarvis <i>et al.</i> , 2019	RCT	Moderate	Low-intensity CBT intervention targeting maladaptive cognitions using WhatsApp.	Socially isolated or lonely adults Mean Age (SD) = 74.93 (6.41)	N=32	DJGLS Loneliness Scale	Cognitive appraisal has a significant positive impact on the subjective experience of loneliness.

## Results

From 1327 articles identified in this review, four RCTs met the eligibility criteria., n= 576 participants (female 67.5%), with an average age of 43.1. See Table 1. One study exclusively studied a population of older adults with a mean age of 74.9.

Articles included in this review utilized mindfulness and cognitive behavioural therapy to target loneliness. All interventions were effective in reducing loneliness compared with a control group.

The four studies were critically assessed using the Effective Public Health Practice Project quality assessment tool. Three were of moderate quality and one was considered strong quality.



## Discussion

Undoubtedly, loneliness is a major challenge to the health and well-being of older adults. During the COVID19 pandemic loneliness rates increased dramatically, especially amongst the over 65 population. There was difficulty connecting with older adults who had little or no access to digital technology.

Although this review identified four psychological interventions delivered on a digital platform proven to be effective in reducing loneliness, it highlights a dearth of research exploring effective remotely delivered psychological interventions targeting loneliness in older adults. The four interventions identified here could possibly be adapted to accommodate the level of IT literacy amongst older adults. Furthermore, effective digital interventions may help increase the current reach of psychosocial interventions to older adults in rural areas with poor transport links.

Future research should focus on determining the type of digital interventions to reduce loneliness that are effective, feasible and acceptable in the older adult population.

## References

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