Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions

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CRD summary
This review assessed the effectiveness of health promotion interventions that target social isolation and loneliness among older people. The authors concluded that educational and social activity group interventions that target specific groups of people can alleviate social isolation and loneliness among older people. This was a well-conducted systematic review and the authors' conclusions are likely to be reliable.

Authors' objectives
To assess the effectiveness of health promotion interventions that target social isolation and loneliness among older people.

Searching
The authors searched MEDLINE, the Science Citation Index (via BIDS), the Social Sciences Citation Index, EMBASE, PsycINFO, ASSIA, CINAHL, SweMed, FirstSearch, Academic Search Elite, SIGLE, LILACS and the Cochrane Library; the search terms were reported. They also handsearched relevant books, journals, indexes, abstracts, and the reference lists of foreign language articles. Experts in the field were contacted. The authors also searched Nordic journals and reports in the University of Helsinki Medical School Library by systematically searching two journals. Studies published in any language between 1970 and 2002 were eligible for inclusion in the review.

Study selection
Study designs of evaluations included in the review
Experimental studies, quasi-experimental studies and before-and-after studies were eligible for inclusion in the review.

Specific interventions included in the review
Studies of health promotion interventions that aimed to prevent or alleviate social isolation and/or loneliness in full, or in part, were eligible for inclusion. Health promotion was defined as the process of enabling older people to increase control over and improve their health. Social isolation was defined as the objective absence or paucity of contacts and interactions between an older person and a social network. Loneliness was defined as the subjective unwelcome feeling of lack or loss of companionship.

The majority of studies used group interventions such as education, skills-training, discussion, social activities, self-help support, caregiver support, bereavement support, therapy, telephone communication, training, physical activity and counselling. One-to-one interventions included home visiting, directed support, social network building, service provision, problem-solving, social support, telephone communication, assessment, supportive therapy, telephone counselling, screening, caregiver support, information and advice. Interventions concerning service provision included transport, recreation, the coordination and provision of services, and medical intervention (fitting of a hearing aid). Community development interventions included social activities, outreach and service influencing.

Participants included in the review
Studies that included older people, as defined in the included studies, were eligible for inclusion. The studies included older women living alone, older men and women, caregivers, bereaved men and women, registered blind men and women, physically inactive men and women, sedentary men and women, men and women with mental health problems, daughters and widowed mothers, lonely women, widows, care receivers, frail men and women, low income women living alone, men and women at risk of suicide, isolated men and women, hospital patients, and men and women with hearing impairment. The ages of the patients ranged from 38 to 93 years, where stated, and the majority were older than 65.
Outcomes assessed in the review
Studies that investigated social isolation and/or loneliness and recorded some form of outcome measure, with or without process measures, were eligible for inclusion. The majority of the studies used a validated measurement tool, such as the University of California Los Angeles (UCLA) loneliness scale, the de Jong Gierveld loneliness scale, another type of loneliness scale, or an existing scale with loneliness added to it.

How were decisions on the relevance of primary studies made?
Two reviewers independently assessed studies for inclusion in the review, with any disagreements resolved by discussion with a third reviewer.

Assessment of study quality
Study validity was assessed on the basis of study method and design and how these were reported, along with the appropriateness of the study design and methods in relation to the objectives of the study. Studies with flawed methodology were categorised as 'inconclusive'. The authors did not state how the papers were assessed for validity, or how many reviewers performed the validity assessment.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction.

Data were extracted into a pre-designed data extraction form of 67 questions. A judgement of 'effectiveness' was made on the basis of evidence of a reduction in social isolation and/or loneliness and whether the reported outcomes took into account the stated aims, the study design, quality and appropriateness of the intervention, and the stage of the research. Studies with sound methods were categorised as 'effective', 'ineffective' or 'partially effective', depending on the extent of significant outcomes:

'effective' interventions demonstrated a significant reduction in loneliness and/or social isolation;

'partially effective' interventions demonstrated significant changes in outcomes related to social isolation and/or loneliness, but a non-significant change in social isolation or loneliness;

'ineffective' interventions did not demonstrate significant changes in any of the relevant outcome measures.

Methods of synthesis
How were the studies combined?
A narrative synthesis was presented.

How were differences between studies investigated?
The authors did not state a method for assessing heterogeneity, but stated that the interventions were too heterogeneous to perform a meta-analysis. The results were presented according to the different types of health promotion programme: group intervention, one-to-one intervention, interventions concerning service provision, and community development. These were further subdivided by the method of intervention.

Results of the review
Thirty studies, with over 6,556 participants, were included in the review. Of these, 16 were randomised controlled trials (RCTs) and 10 were non-randomised controlled trials.

Group activities with an educational input: five of the nine group interventions with an educational input demonstrated a significant reduction in loneliness. Two studies demonstrated that a structured approach to physical activity decreased loneliness.

Group interventions providing social support: a social activation programme in a senior citizens' apartment building.
bereavement support for recently widowed older people, therapy-type discussion groups for older people with mental health problems, and peer- and professionally-led counselling or discussion groups for adult daughters and daughters-in-law who were primary carers, all reported a significant reduction in loneliness or social isolation.

One-to-one interventions: the majority of one-to-one interventions did not show a significant effect in reducing social isolation and/or loneliness.

Home visits to provide assessment, information or provision of services: the only study in this category to demonstrate a significant reduction in social isolation and loneliness was a one-off home visit by a nurse to patients aged 75 years or more, which included a health assessment, advice, written health information and referrals if required. Three other RCTs did not show a significant effect in reducing social isolation and/or loneliness.

Home visits or telephone contact to provide directed support or problem-solving: the four studies that investigated the effectiveness of directed support and problem-solving did not show a significant effect in reducing social isolation and/or loneliness.

Social support in one-to-one interventions: the two studies that investigated one-to-one social support did not show a significant effect in reducing social isolation and/or loneliness.

Effective interventions shared several characteristics: they were group interventions with a focused educational input, or they provided targeted support activities; they targeted specific groups; they stated that the experimental sample was representative of the intended target group; they enabled some level of participant and/or facilitator control or consulted with the intended target group before the intervention; they evaluated an existing service or activity or were developed and conducted within an existing service; the participants were identified from agency lists, obituaries or mass-media solicitation; they included some form of process evaluation and their quality was judged to be high. Physical activity interventions were also effective.

Ineffective interventions shared one characteristic, they were one-to-one activities conducted in people's own homes.

**Authors' conclusions**

Educational and social activity group interventions that target specific groups of people can alleviate social isolation and loneliness among older people. The effectiveness of home visiting and befriending schemes remains unclear.

**CRD commentary**

The review question was clear in terms of the study design, participants, interventions and outcomes of interest. The search strategy was very thorough and attempts were made to identify unpublished and foreign-language studies, thus reducing the potential for publication and language bias. Two reviewers independently selected studies for inclusion, thereby reducing the potential for reviewer bias and error. However, the authors did not state how the studies were assessed for validity or how the data were extracted; the potential for reviewer bias and error cannot, therefore, be assessed for these parts of the review process. The included studies appear to have been assessed for validity using appropriate criteria. Adequate details of the participants, setting and interventions of the included studies were presented; however, no details of the control interventions were provided. The narrative synthesis was appropriate given the differences between the included studies. This was a well-conducted systematic review and the authors' conclusions are likely to be reliable.

**Implications of the review for practice and research**

Practice: The authors stated that programmes that involve older people in the planning, development and delivery of activities are most likely to be effective.

Research: The authors stated that some of the poorer quality studies included interventions not reported elsewhere and therefore deserve further evaluation; these interventions included peer social-support in the home, focus-group discussions on the telephone, the provision of a hearing aid, and the provision and use of the Internet to alleviate loneliness. They stated that other services and activities in the field have not been evaluated, including socio-political
and environmental-ecological interventions, and require well-designed evaluations. The authors also recommended further work to identify appropriate methods for public health and health-promotion evaluations. Future reviews should appraise multiple levels of evidence from practitioner-led project evaluations to complex community trials.

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