Interventions to reduce social isolation amongst older people : where is the evidence ?

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ABSTRACT

As the population ages and more people are living alone, social isolation amongst older people is emerging as one of the major issues facing the industrialised world because of the adverse impact it can have on health and wellbeing. This article reviews the empirical literature published over the last 20 years on the effectiveness of interventions that target social isolation amongst older people. The results reveal that although numerous such interventions have been implemented worldwide, there is very little evidence to show that they work. It is concluded that future intervention programmes aimed at reducing social isolation should have evaluation built into them at inception, and that the results of the evaluation studies, whether positive or negative, should be widely disseminated. Where possible, as a cost-effective measure, pilot or demonstration projects should precede these interventions. Some key elements of successful interventions to counter social isolation amongst older people are presented.

KEY WORDS – social isolation, intervention, evaluation, review, older people, ageing.

Introduction

As the proportion of older people in the population increases and more live alone (World Health Organisation 2002), the problem of social isolation among the age group is of growing concern. In a survey of the empirical literature published between 1948 and 1991, Victor *et al.* (2000) found that between two and 20 per cent of people over the age of 65 years were socially isolated. In Australia, a study of 2000 veterans found that approximately 10 per cent were socially isolated and a further 12 per cent were at risk of social isolation (Gardner *et al.* 1999). Another Australian study by Edelbrock *et al.* (2001) found similar results for the general population. In the United Kingdom, a study of loneliness and isolation

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by Owen (2001) revealed that over 12 per cent of people aged 65 and more years felt socially isolated.

Factors contributing to social isolation include loss (in its many forms), poor physical health, mental illness, low morale, being a carer, geographic location, communication and transport difficulties (Brennan, Moore and Smyth 1995; Edelbrock *et al.* 2001; Gardner *et al.* 1999; Hall and Havens 1999; Russell and Schofield 1999). Many of these factors are often beyond the socially isolated person's control and are therefore 'not obviously susceptible to amelioration' (Wenger *et al.* 1996: 345–6). Thus, designing effective interventions to address the problem is difficult.

Social isolation has been defined in myriad ways in the literature. Some studies (*e.g.* Cattan and White 1998; Hall and Havens 2001; Van Baarsen *et al.* 2001) have differentiated between two constructs: social isolation, an objective measure of social interaction, and social loneliness or emotional isolation, the subjective expression of dissatisfaction with a low number of social contacts. On the other hand, in a report to the Australian Department of Veteran Affairs, Gardner *et al.* (1999) combined these two constructs into a single definition. They defined people as socially isolated if they had poor or limited contact with others and they perceived this level of contact as inadequate, and/or that the limited contact had adverse personal consequences for them. People who had only poor or limited social contact were considered as 'at risk' of social isolation: some older people prefer to be alone and suffer no adverse effects on their quality of life.

Although the proponents of disengagement theory contend that psychological adjustment to ageing comes through a reduction of activity and social contact (Cumming *et al.* 1960), most research indicates that engagement in social interaction is far more beneficial for health and wellbeing of older people (Bower 1997; Fratiglioni 2000; Moyer *et al.* 1999; Pennington 1992; Victor *et al.* 2000; Wenger *et al.* 1996). Furthermore, social isolation has been linked with increased mortality rates for people aged over 65 years (Bower 1997); elevated blood pressure (Bower 1997); increased propensity to dementia (Fratiglioni 2000); rural stress (Monk 2000); depression (Gutzmann 2000; Silveira and Allebeck 2001; Warner 1998); and suicide (Centres for Disease Control and Prevention 1996; Conwell 1997; Rapagnani 2002).

Numerous interventions have been implemented worldwide to address the problem of social isolation amongst older people, but the question is, do the interventions work? There has been one systematic review of the evaluation of the effectiveness of interventions to address social isolation amongst older people (Cattan and White 1998). The inclusion criteria for the studies in their review were that they: related to older people; considered interventions that targeted social isolation and/or loneliness;

TABLE 1. *Characteristics of effective interventions*

- Group activities: for example, discussion; self help; social activation; bereavement support
- Target specific groups: for example, women, the widowed
- Use more than one method and are effective across a broad range of outcomes
- The evaluation fits the intervention and includes a process evaluation
- Allow participants some level of control

Source: Cattan and White (1998).

described interventions intended to achieve health gain; recorded outcome measures; and were published between 1970 and 1997 in any language. Cattan and White's review identified 21 studies, 11 of which were published in the United States. Ten of the 21 studies were randomised control trials (RCTs), and the remainder were categorised as either non-RCTs (8), before-and-after studies (2), or quasi-experimental studies (1). In addition, Cattan and White identified nine surveys of various designs and 25 purely descriptive articles. Based on their review, Cattan and White identified a set of characteristics of effective interventions (Table 1). Unfortunately, Cattan and White (1998) have never publicly documented the references for the studies that they uncovered. It is therefore impossible to know from their work exactly what types of interventions (other than the categorical programme type, such as group, one-to-one, service provision, or whole community) are likely to be more effective than others. The current research sought to address this shortcoming.

Methodology

The current review used the same inclusion criteria as Cattan and White (1998) except that only studies published in English between 1982 and 2002 were included. Internet searches were conducted through *Medline*, the Cochrane Library,[1] the Campbell Collaboration Library,[2] *Proquest*, *Infotrac*, *PsychInfo*, *Sociological Abstracts*, and *Ageline*. Hand searches were also conducted to scan relevant journals or backdated issues not available online. Search terms were categorised under:

- Target group: older, elder, ageing or aging; senior.
- Issue: social isolation; loneliness.
- Strategy: intervention; promotion; health promotion; social support; community intervention/programme.
- Type of article: evaluation; review; study.

Results

Seventeen relevant studies were identified as well as numerous purely descriptive articles. Five out of the 17 relevant studies were one-to-one interventions, of which three involved telephone support services and two gatekeeper programmes. Six were group interventions, of which two involved tele-conferencing, and four considered discussion or support groups. Two were evaluations of service provision and four were evaluations of the use of the Internet. Only six of the 17 evaluations were RCTs. Almost half the published studies (8) were conducted in the United States, and the others in Australia (3), Canada (2), The Netherlands (2), Italy (1) and Sweden (1). The 17 relevant studies are listed in Table 2.

Very little can be deduced about the effectiveness of interventions when so few evaluations of each type of intervention have been conducted. The following summary of the effectiveness of particular types of interventions, based on the studies presented in Table 2, must therefore be treated with caution. Further research is needed on all types of interventions to determine whether they actually achieve their purpose. In the interest of future directions in the field, however, this summary is offered as a tentative guide until a more substantial database of evaluated interventions becomes available.

One-to-one interventions

Telephone support services: Telephone support services generally involve 'at risk' people being contacted by a trained counsellor or support person on a regular basis. The Link Plus programme and the telephone dyads identified here were ineffective in reducing feelings of social isolation, but the former had some success in connecting people 'at risk' with support services. The Tele-Help, Tele-Check programme that targeted older people at risk of suicide by virtue of their social isolation was effective in reducing rates of suicide.

Gatekeeper programme: The original gatekeeper programme was established at the Spokane Mental Health Centre in Washington State in 1978. The programme has spread across the USA and is now having success in Canada. Essentially, the programme utilises non-traditional referral sources to identify 'at risk' older people who typically do not come to the attention of support services. It promotes, recruits and trains employees and volunteers and promotes their links to service systems. For a full description of the programme, see Florio *et al.* (1996) or visit the Niagara gatekeepers' web-site.[3] The gatekeeper model has successfully identified socially isolated

TABLE 2. *Studies that have evaluated interventions to address social isolation amongst older people*

Programme type and target group	Study and country	Intervention components	Study design	Effect
One-to-one				
Seniors 'at risk' of suicide	Morrow-Howell *et al.* (1998) USA	Link-Plus programme: clinical case management and supportive therapy using traditional crisis intervention	RCT	After four months, amount of personal contact increased. After eight months, unmet needs reduced slightly. Effective in attaining referrals of 'at risk' elderly to health services. No significant effect on satisfaction with socialisation or loneliness.
Isolated older women, low income	Heller *et al.* (1991) USA	Telephone dyads: 10 weeks of telephone staff contact designed to increase friend support	RCT	No significant effects on social isolation.
Seniors 'at risk' of suicide (84% = women)	De Leo *et al.* (1995) Italy	Tele-Help (alarm system). Tele-Check (contacted twice weekly re: needs and emotional support) service for older people	QE	Reduced rate of suicide.
Clients referred to services for older people	Florio *et al.* (1996) USA	Gatekeeper programme (comparison with other types of referral)	CSS	Effective for identification of socially isolated older people.
Clients referred to services for older people	Florio *et al.* (1998) USA	Gatekeeper programme	NRPT	After referral to support, social isolation drops in those referred by gatekeepers.
Group intervention				
Isolated seniors with disabilities	Stewart, Mann, Jackson *et al.* (2001) Canada	Tele-conferencing: groups met once a week via tele-conferencing for 12 weeks	PPI	Decreased support needs; diminished loneliness and enhanced coping. (Selection, training and support of peer and professional leaders and member control of discussions were important ingredients of the successful support groups.)
Isolated carers	Shanley (2001) Australia	Tele-conferencing – Adaptation of Homereach (programme to raise carers' awareness of self-care and available resources)	QE	A cost-effective strategy for bringing people together especially from geographically isolated areas. The project produced *Getting in Touch: A Carer Support Model using Teleconferencing*.

Tᴀʙʟᴇ 2. (*Cont.*)

Programme type and target group	Study and country	Intervention components	Study design	Effect
Group intervention (*cont.*)				
Widowed seniors	Stewart *et al.* (2001) Canada	Four face-to-face discussion groups (1–1.5 hrs/wk for maximum 20 weeks). Co-led by peer and trained facilitator	PPI	Enhanced support satisfaction, diminished support needs and increased positive affect. There was a trend toward decreased social isolation and emotional loneliness. Qualitative data: many interviewees reported being able to cope better. Note: Beneficial effects may not appear unless there is a lengthy intervention period.
Senior women on housing waiting list	Andersson (1985) cited in Stevens (2001) Sweden	Discussion groups led by home health aides. Topics such as leisure activities and the neighbourhood	RCT	Six months post-intervention, participants demonstrated more frequent social contacts, an increase in participation in organised activities and a decline in loneliness, but no change in the availability of a close friend or confidante.
Lonely older women	Stevens (2001) The Netherlands	Educational programme on friendship enrichment – 12 weekly sessions to groups of 8 to 12 women	NRPT	Reduced loneliness during the year following the intervention, but the average loneliness score remained within the range of the moderately lonely. (The results may be an artefact of subject self-selection, of the 'socially active, but lonely': see De Jong Gierveld 1984.)
Senior women	Stevens and van Tilburg (2000) The Netherlands	Same as above	NRMC	Twice as many women who completed the friendship course had reduced loneliness and feelings of isolation compared with the controls. The education group also developed new friendships of varying degrees of closeness, and their friendship networks were more complex.
Service provision				
Senior women	LaVeist *et al.* (1997) USA	Community senior support – Effect of extreme social isolation and utilisation of community senior support services	RCT	Use of community support services did impact on mortality rates. Extremely socially isolated older women were three times more likely than non-isolated women to die within the 5-year period.
Retirement village residents	Buys (2001) Australia	Retirement village living	QE	Decreased social isolation and loneliness if actively seeking to make more contact.

Internet usage

Caregivers of persons with Alzheimer's disease	Brennan, Moore and Smyth (1995) USA	*ComputerLink*: provides information, communication and decision-support functions	RCT	Although *ComputerLink* improved caregivers' decision-making confidence, it did not enhance their decision-making skill nor did it reduce their social isolation.
Adults 50+ years	Ito *et al.* (1999) USA	*SeniorNet*, a non-profit website that provides adults aged 50+ years access to and education about computer technology and the Internet	OI	Older people who are regular users of *SeniorNet* reported positively on the medium's potential for social interaction and individual empowerment.
All older people	Swindell (2001) Australia	*Isolated Bytes* (U3A Online). Intellectually challenging 8-week online courses for isolated older persons	NRPT	47 per cent experienced some feelings of isolation. Of this 'isolated' group, 12 (75%) felt that *U3A Online* had helped to alleviate the isolation and loneliness.
Congregate housing and nursing facility residents	White *et al.* (2002) USA	Provision of Internet and electronic mail access	RCT	Internet usage led to a trend in decreased loneliness (small sample).

Key to study designs: CSS, Cross-sectional survey. NRMC, Non-randomised matched control trial. NRPT, Non-randomised post-treatment/test survey. OI, Observation and interview. PPI, Pre-post intervention study. RCT, Randomised controlled trial. QE, Quasi-experimental.

older people, connected them with support services and reduced social isolation among those referred to services. This model may prove to be one of the most successful for dealing with social isolation and has several worthwhile features:

- It mobilises and trains non-traditional referral sources – a unique quality.
- It allows the general public to take action on behalf of vulnerable adults without getting too involved – it promotes anonymity.
- It can be adapted to any community setting including rural areas and could deal with issues other than social isolation.
- It opens lines of communication between agencies and builds community capacity – the community-driven approach being crucial to its future (Niagara Gatekeepers Program, *Ad Hoc* Working Group 2000).
- It is cost-effective.

Group interventions

Tele-conferencing: Tele-conferencing appears to be a cost-effective strategy for reducing loneliness and bringing people together, especially in geographically isolated areas.

Support groups: The types of support groups that have been evaluated include educational and friendship enrichment or empowerment programmes and discussion groups. The research shows that support groups can have a positive effect on social isolation if they have an implementation period of at least five months. Most of the evaluative research on support groups has however targeted females, and the results do not necessarily apply to males. It may be that support groups are more effective interventions for women. In addition, it may be that support groups are only effective for people who already have the necessary social skills to join them, and therefore might not work for the severely socially isolated.

Service provision

The research indicates that the use of community support services is beneficial to health and wellbeing, and that moving to retirement-village living can have beneficial effects for those actively wanting to become less socially isolated.

Internet usage

Computer-based functions such as Email that encourage interactive dialogue may be the most beneficial types of programme for reducing

feelings of social isolation. In addition, specially designed websites such as *SeniorNet*[4] and *U3A Online*[5] seem to alleviate feelings of social isolation and loneliness.

Discussion

There is a belief that interventions can counteract social isolation and its adverse effects on older people, but the research evidence in support of this belief is almost non-existent. Of the few existing evaluations of effectiveness, many are flawed by weak methodologies. Only six of the 17 studies in the current review were RCTs, a lower proportion than the 10 out of 21 found by Cattan and White (1998). Although there are several evaluative studies on the effectiveness of specific types of interventions, such as use of the Internet, very few have specifically examined the impact on older people. Consequently, an enormous amount of public money, time and manpower may be wasted on interventions for which little evidence of their effectiveness is available.

The dearth of evidence highlights the need for further rigorous research. It is essential that future programmes aimed at reducing social isolation have evaluation built into them at inception. It is equally essential that the results of the evaluation studies, whether positive or negative, are widely disseminated. Where possible, as a cost-effective measure, pilot or demonstration projects should precede these interventions. Evaluations of interventions, including their sustainability and long-term benefits, should be promoted and adequately funded. Most of the existing evaluations have been conducted on interventions that have explicit short-term objectives, while less attention has been paid to evaluating their sustainability and long-term benefits. Networking between communities, governments, the private sector and researchers is essential to provide the target-group input, financial support and technical expertise necessary for thorough evaluations of the interventions.

Despite the shortcomings, the existing research, including the descriptive articles, provides some guidelines for future development. First, high quality approaches to the selection, training and support of the facilitators or co-ordinators of the interventions appear to be one of the most important factors underpinning successful interventions. Second, interventions are more likely to be successful if they involve older people in the planning, implementation and evaluation stages (Cattan and White 1998; Joseph Rowntree Foundation 1999). Third, interventions have a greater chance of success if they utilise existing community resources and aim to build community capacity – the gatekeeper programme being a prime example.

Finally, the importance of the evaluation of interventions and the dissemination of research findings to inform future initiatives to counter social isolation should not be undervalued.

NOTES

1 For details visit http://www.update-software.com/cochrane/
2 For details visit http://www.campbellcollaboration.org/Fralibrary.html
3 For details visit http://www.niagaragatekeepers.org/
4 For details visit http://www.seniornet.org/php/
5 The online version of the University of the Third Age: for details visit http://www.u3aonline.org.au/

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