Reducing social isolation and promoting well being in older people

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Abstract

Purpose – The purpose of this paper is to report on a three year research project exploring the impacts of an intervention seeking to reduce social isolation in older people.

Design/methodology/approach – This study used qualitative research methods and a participative approach to facilitate the generation of the research objectives and process. Participant observation and individual/focus group interviews were used to collect data from 100 participants.

Findings – Overall the perceived benefits for attendees of attending the friendship clubs fell into three key areas: improved well being, social relations and mental and physical health.

Research limitations/implications – A weakness of the participant observation method includes the possibility that the presence of the researcher influenced the findings. The process of gaining different data sets (observation, interviews and focus groups) and checking findings with another researcher and the research participants as the study progressed reduced the likelihood of this bias occurring. This study only considered individuals who attended the clubs. There are many who may not get this opportunity and the issue of how to engage with them through this type of intervention is not addressed.

Originality/value – This study adds to the literature to guide practice and service provision as it introduces the finding that even when living with their families, older people can still feel socially isolated. In addition, this study found that club members and volunteers viewed themselves as assets for each other, offering support, advice and friendship – an important finding for service commissioners and providers.

Keywords Older people, Social isolation, Social support, Friendship clubs, Elderly people, Mental health

Paper type Research paper

Introduction

Social isolation the UK perspective

Over half of all people aged 75 and over in the UK live alone (Office of National Statistics, Older People, 2010) and it has been suggested that the number of people aged over 65 who are often, or always, lonely totals over 1 million (Age Concern and Help the Aged, 2009). More than 180,000 people in the UK over 65 say they have gone for an entire week without speaking to friends, neighbours or family and a million older people spent Christmas Day alone in 2006 (ICM Research for Help the Aged, 2007). 17 per cent of older people make contact with family, friends and neighbours less than once a week, with 11 per cent in contact less than once a month (Victor et al., 2000). Further research also suggests that 12 per cent of older people feel confined to their own home (GfK/NOP Organisations, 2006). Moreover, in response to the global economic downturn, the sharp decline in local services has impacted socially on the older population with large numbers of local post offices, libraries, shops and public houses closing in recent years alongside reduced availability or access to public transport.
Factors further contributing to exclusion include being aged 80 or over, being female and living alone with no living children, suffering poor physical/mental health (especially depression), lacking access to a private car and never using public transport. In addition living in rented accommodation and receiving benefits as a main source of income as well as lacking access to a telephone (Social Exclusion Unit, 2006b) all contribute.

The digital revolution, which could be seen as a means by which older people can remain in contact with each other, has left many of them behind. Research suggests that the majority (60 per cent) of those aged 65 and over have never used the internet with adults aged 65 and over, making up almost two-thirds (64 per cent) of those individuals who have never accessed the internet (Office of National Statistics Older People, 2010). This paper reports on a three year research project (2008-2011) exploring the impact of an intervention seeking to reduce social isolation in older people.

The process of ageing sees many individuals progressively adapting to changed personal circumstances such as bereavement and/or relocation. Functional health losses may also require yet further adaptation, such as impaired cognition (impacts of dementias/stroke) or altered mobility (Hammill, 2009). Evolving changes such as these can lead the individual to experience loneliness or social isolation as one modifies, or even surrenders, life-long activities that previously ensured meaningful engagement with others. It is now recognised that the negative health impacts of social isolation and loneliness are a global concern, especially for developed countries (Stanley et al., 2010).

A UK charity seeking to promote well-being for older people, established a network of 70 “friendship clubs” in two counties in the South of England. The charity provides the opportunity (through transport and venue provision) for older people to meet locally every week for two hours and enjoy activities. These activities are negotiated with the members of each individual club and facilitated by volunteers some examples are card games, outings, information giving sessions, physical exercise, guest speakers and entertainers, as well as informal conversation over a tea and cake. The funding for the transport and venue for the clubs comes from the charity while the activities are funded primarily through member subscriptions of around £2 per week payable only if the member feels they can afford it. Local authority contributions and charitable grants managed through the charity provide 40,000 individual attendances at the clubs for around 1,700 members annually, 80 per cent of whom are female and aged 80+. The underpinning philosophy for the clubs is that they should be fun and promote friendship, thus, crucially, the charity empowers and enables the members to actively achieve this themselves by viewing its role as one of facilitation only. This is achieved as each club is effectively “run” with co-operation from the members themselves, an extensive team of trained volunteers (often previous members) with organisational input from a paid clubs manager who helps to run clubs over a county. The clubs are therefore, in essence, social clubs devoted to giving older people the opportunity to meet new and old friends in order to develop quality, meaningful, reciprocal relationships.

Literature review

Primary sources were explored using peer reviewed journals written in English from 1998 to 2008 this literature was then added to throughout the study to 2011. Electronic databases CINAHL, Cochrane Library, BNI, ASSIA, Medline, NRR, Psycarticles, Psychinfo, Internurse were searched. Master’s theses, and newspapers were excluded from this literature review, as well as any publications that discussed social isolation in populations other than community dwelling older adults. Search terms used were older people, quality of life, social isolation, loneliness and health impacts. Initially 422 publications were retrieved, as the search narrowed using the relevant search terms and after reviewing the title and abstracts based on the inclusion criteria including community dwelling older adults and excluding those in residential/nursing care homes, this was reduced to 27 papers which informed the final review.

The initial review focused on quality of life and the older adult and found that there was little consensus about the definition of the term itself (Victor et al., 2000). Overall, the literature
clearly demonstrated however, that social and family relationships are embedded within the definition of a “good quality of life” for older adults.

**Loneliness and social isolation – the older person’s perspective**

It was then noted when considering social isolation/loneliness, that there was an apparent lack of evidence as to the older person’s perspective on these areas. Indeed, Stanley et al. (2010) not only highlighted the lack of research seeking to understand loneliness from the older person’s perspective, but that the interchangeable use of the terms social isolation and loneliness exemplified the lack of agreed definitions for both. The search yielded two main approaches when investigating social support; qualitative and quantitative approaches (Fioto, 2002). Bondevik and Skogstad (1998) identifies “social networks” as quantitative and structural aspects of human relationships, and “social support” as the qualitative aspect of perceived support.

The terms “loneliness”, “social isolation” and “living alone” are, as mentioned, used interchangeably within the literature, although they are three distinct (but linked) concepts. “Living alone” is the most straightforward to define and measure in objective terms. Loneliness refers to how individuals evaluate their level and quality of social contact and engagement. It is suggested that loneliness can be described as negatively perceived social isolation (Cornman et al., 2003).

Boldy and Grenade (2008) defines social isolation as a deficiency in social integration, and emotional isolation as a deficiency in intimacy and attachments. The literature also suggests that research on older people is rarely participative and participants may present to the survey interviewer only their “public account”; that is the account that participants assume the interviewer wants to hear (Van Baarsen et al., 2001).

Generally, social isolation is regarded as an objective state where an individual has minimal contact with others and/or a generally low level of involvement in community life. It is usually measured by the number, type and duration of contacts between individuals and the wider social environment, an individual’s social network. Other network-related indicators such as living arrangements (living alone), availability of a confidant, and community involvement are sometimes included (Boldy and Grenade, 2008) in the definition.

**Health impacts of social isolation/social involvement**

Research indicates that social isolation and loneliness negatively affect both physical and mental health, particularly among older adults (House, 2001; Tomaka et al., 2006). These negative health effects include all-cause mortality, morbidity, and cardiovascular disease (House, 2001). Indeed the effects of social isolation and loneliness have been compared in magnitude to the damaging health effects of smoking cigarettes and other major health risks (House, 2001; Cornwell and Waite, 2009). Conversely, the physiological effects of social involvement and the maintenance of social ties can increase immune function (Cohen et al., 1997; Pressman and Cohen, 2005) and reduce cardiovascular and neuroendocrine damage related to exposure to stress (Seeman et al., 1994). Furthermore, being embedded within a social network is thought to promote health-enhancing behaviours (Kinney et al., 2005) and to increase one’s sense of control and self-esteem, key factors in promoting well-being (Cornman et al., 2003). Social and productive activities are as effective as fitness activities in lowering the risk of death, enhanced social activities may also help to increase the quality and length of life (Glass et al., 1999). Participation in leisure, social, cultural and spiritual activities in the community, not only facilitates older people to maintain self-esteem, but also creates or enhances supportive and caring relationships by fostering social integration (Routasalo et al., 2006; WHO, 2007).

Furthermore, research suggests that social relationships are important throughout the lifespan, people who are embedded in a network of personal relationships experience a higher level of health and well-being than those who are socially isolated (Machielse, 2006; Fioto, 2002). The factors that appear to be important in relation to this are:
Identity and self respect: a personal network offers people a social identity.

Social integration: enhances feelings of personal involvement and security.

Social support: the practical and emotional support offered through companionship for the older adult impacts positively on their personal and social functioning.

Methods

Following initial discussion with the charity research and education group informed by the findings from the literature review the research team clarified the aims of the study as:

1. to explore and describe the phenomenon of “social isolation” as experienced by those affected;

2. to explore and describe the reasons why attendees come to the clubs or volunteer as well as capture their experiences of barriers and expectations to attendance including the practical pathways involved;

3. to explore perceptions of the impact of attending the clubs on well-being/mental-physical health as described by those who take part in the study; and

4. to identify measures that may help reduce the occurrence of social isolation from an older person’s perspective.

Access to the ten clubs included in the study was negotiated by the research team with the clubs manager to ensure that the ten clubs selected represented the majority of the clubs and their members. The clubs selected ensured generalisability of the findings across the organisation as a whole through consideration of specific demographic features including age, gender, socioeconomic groups and a mixture of urban/rural post codes as well as overall membership size and makeup of the club.

The club attendees were over 80 per cent female, with an average age of 80 years old with over 80 per cent of attendees living alone with 4 per cent attending more than one club if it was sited within travelling/transport distance from their home. A total of 82 club members and 18 volunteers contributed to the overall data collection. The sample reflected the gender mix of the club attendees. The recruitment of the individual participants was facilitated by the club leaders (volunteers) who reminded those attending the club the week before about the study and asked everyone attending that week whether they consented to the researcher attending the club the following week. Each individual club member was then informed again verbally and in writing about the study by the researcher prior to conversations and interviews to ensure informed consent. All participants were informed that they could withdraw from an interaction with the researcher at any time if they so wished.

The research team felt that qualitative inquiry would enable the successful achievement of the research objectives. Denzin and Lincoln (2005) broadly describe qualitative research as a “situated activity that locates the observer in the world under study” (Denzin and Lincoln, 2005, p. 3). The researcher from experiences during the introductory phase of the study felt embraced into the older persons’ lifeworld experience as many personal narratives were shared. This allowed the development of an understanding of social isolation far deeper than that gained from the numerical data analysis/quantitative approaches of previous research found to be dominant in the literature review. Furthermore, Denzin and Lincoln (2005) also state “[qualitative research] consists of a set of interpretive, material practices that make
the world visible...they turn the world into a series of representations, including field notes, interviews, conversations, recordings and memos to self” (Denzin and Lincoln, 2005, p. 3). It was felt this interpretive paradigm would enable the research team to achieve the aims of the study, particularly in exploring the phenomenon of social isolation from the older person’s perspective.

Data collection began with participant observation and then progressed to individual interviews for first stage analysis and then focus group interviews to further explore emerging themes.

Many of the tools employed within earlier studies addressing social isolation were measures of “loneliness”, and as such are often predominantly quantitative in nature. E.g. OARS Scale, Gerda Fillenbaum’s Scale, Anderson’s Family and Friendship Contact Scale. Chappell and Badger (1989) however suggests that qualitative measures which specifically examine companions and confidants, not quantitative measures, are more useful when identifying interventions to address issues related to social isolation and well-being. This study used participant observation, and individual/focus group interviews in order to ensure that all those who wished to offer their insights could be heard in either format depending on their preference. The interviews and focus groups were recorded and used prompts and emerging themes to guide them. The researcher kept field notes and a reflective/reflexive journal (Liamputtong and Ezzy, 2005) to record observations and reflections.

**Research ethics**

Ethical approval was granted by the university internal ethical panel process prior to research activity beginning. The involvement of the ten clubs (across two counties in the south of England) was negotiated between the clubs manager and the research team. No individual clubs or participants were identified within any field notes or transcripts.

The field researcher immersed herself in the clubs and club activities during the initial visits and it was noted that the clubs were willing to facilitate this and involve the researcher as an “honorary member”. Input was also secured at this point from the clubs to help develop the participant information sheet and consent form.

**Analysis**

The interviews were recorded, transcribed and analysed by the research team. Initial analysis began with the researcher transcribing and taking notes. This was followed by interpretative analysis whereby the data was read and re-read for an initial intuitive grasp of the themes seen as emerging and was complimented by the researchers field notes and reflections. The raw data was thereby organised into themes and patterns.

Modified inductive content analysis was then used to identify and form emerging categories. This approach was used as the researcher wished to explore the rich data to search for any new themes that may have emerged as the analysis progressed. True inductive content analysis would use no previous framework, however, the on-going literature search, and focus group exploration combined with the knowledge gained from meeting the older people during the introductory phase of data collection impacted on the researcher’s “knowing and knowledge” therefore the process could not be seen as inductive in its purest form (Maykut and Morehouse, 1994).

Throughout the data analysis, the researcher became aware of the emerging themes resonating with the other findings from the literature as well as the unique findings from this study. A modified constant comparative strategy was therefore subsequently used. This analysis method focused on a process whereby categories emerged from the data via predominantly inductive reasoning rather than through coding from predetermined categories (Maykut and Morehouse, 1994) with the overall interpretation “confirmed” using either data findings from the other methods used or from the literature and prior research. The charity research and education group, which met with the research team quarterly, provided a forum for development and a feedback panel of “experts” as regards the findings. The research team also discussed emerging findings with the focus group participants.
and other stakeholders thus attempting to address the issues of trustworthiness and truthfulness essential elements required to show the rigour in qualitative research (Denzin and Lincoln, 2005).

The headings included in the findings section emerged from the data analysis.

Findings

Quantitative data summary

Summary data to illuminate the context of the study were collated by the research team during one month from the ten clubs involved. Of the 588 recorded members across the ten clubs, 83 per cent were female, a percentage reflected throughout each of the clubs with little variation, and the average age 81 years old. The size of the membership of each club varied, as did weekly attendance at the clubs (non-attendance most frequently due to ill-health, or healthcare appointments), from 26 members to 87 with an average of 38 per club. It was also evident that the friendship clubs were recruiting members from areas recognised as deprived (between 20 and 30 per cent of attendees from deprived post codes, South West Regional Public Health Observatory, 2008).

Qualitative findings

The risk of becoming isolated. The participants gave reasons why they felt they may be at risk of being isolated, many of which mirrored those in the literature such as, loss of spouse, moving away from family and close friends, and poor health limiting mobility or ability to drive and travel:

When I moved here, I knew no-body…You handle it a lot better when you are younger (participant).

I’m afraid of falling, I don’t go anywhere alone now (participant).

The lack of available transport, or confidence in using public transport was highlighted as a key factor in experiencing social isolation, and for many, the fact that the clubs provided transport was seen as vital for their attendance. Members described suddenly losing roles and responsibilities for instance by having to move home/location or as grandchildren grow up:

Unless I am being picked up, or [travelling] by taxi, I just don’t go out (participant).

I then [felt I] had nothing to get up for (participant).

Furthermore, the participants described further reasons including general safety fears (going out after dark, being amongst crowds of teenagers), fear of falling, and particularly what they described as “a general loss of confidence” in themselves. This latter factor was important to some participants as they felt that very quickly a small loss of confidence could lead to reluctance to leave their home:

It isn’t a safe place today is it? (participant).

When you’re young, you’re very resilient aren’t you? You bounce back…But the older you get, you lose confidence…and it doesn’t come back (participant).

Concerns over finances were an issue as some participants described that despite being able to find activities that they would like to pursue with their peers the cost was prohibitive.

Feeling isolated. The participants described very limited opportunities to pursue social activities out with the clubs and had heard about the clubs from friends or neighbours by word of mouth. The participants described what the experience of social isolation did, or could feel like within an objective and subjective framework as described in the literature. For some participants, they described attendance at the club as providing the only contact with others, indeed the weekly club for some was the only source of conversation in the entire week:

There’s something about hearing your own voice…when you’ve been on your own for days on end you start talking to yourself because I think I must hear myself talking! [laughs] (participant).
Furthermore, this important social contact can begin with the transport driver who drives them to the club. Many members described the difficulties of adjusting to life alone since the death of their partner:

I don’t have any friends now, they have all died (participant).
If I wasn’t here, I would be out in my buggy, looking at the cows in the field at the bottom, or just doing nothing... (participant).

Surprisingly some participants although living with their family still described feeling lonely as they did not feel they were truly engaged with their family in a way they enjoyed. They viewed attendance at the club as a welcome relief!

I just like to get away from them (participant).

These participants described the fact that they did not feel they could meaningfully engage with their family in a technological world with mobile phones, music, televisions, etc. constantly on in the background. There were also tensions expressed as regards to parenting, whereby, the participants felt it better not to say anything rather than disagree with their children and grandchildren. In this way they felt they would rather socialise with their peers than be in a world they did not feel part of, or want to belong to:

They (the Clubs) are better than family... (participant).

**Friendship.** In terms of social relationships, the participants felt that in attending the clubs they not only made new friends and maintained older ones, but that they also enjoyed companionship and emotional support (empathy and the sharing of similar life experiences, good and bad). They felt they particularly benefitted from the friendship of peers and a subsequent shared world view:

We have a laugh about our aches and pains... (participant).

As one would expect from friendship, participants articulated that there were benefits to be had from the practical information and guidance from these relationships, and for some a reaffirming of their social identity as they felt able to use their knowledge from previous roles or personal experience:

I used to be a man, they treat me like a man. I am still a man (participant).

For the bereaved, the new friendships were seen as key as they had moved away from established networks and friends to be nearer their family when their partner or spouse died. Participants also reported that friends provided valuable support through the grief process, by embracing a shared understanding that they felt could not be expressed with family members:

You know if you’ve got a problem, you can go to anyone of these [members and staff] and have a chat (participant).

Participants also identified that romantic relationships were also established and conducted through the clubs. The participants described feeling valued by friends, indeed by everyone at the club including the staff and volunteers who worked there:

No-one else has time for our age group (participant).
We just don’t feel listened to (participant).

The participants described feeling that the clubs acknowledged them as valuable members of society with a wealth of life experience to share and draw upon often within the clubs themselves:

You can talk about anything and they wouldn’t disrespect you (participant).
We understand when we talk to each other, because we’ve got it too! (participant).

Again, as one would expect from friendships, the participants appreciated the flexibility in attending the clubs. There was no pressure to attend if they “don’t feel up to it”. Although the club volunteers do routinely telephone members who do not attend for two weeks to see how they are. Similarly there was also no pressure to take part in any of the activities or days out either where potential additional costs for some were an influencing factor. Many members described the clubs’ weekly low cost of attendance meant that an active social life was now possible.
This study adds to the literature as it describes additional factors that predispose an individual to become socially isolated:

- Environmental safety fears – going out after dark, busy bustling streets, traffic.
- Fear of falling – due to mental/physical conditions or environmental factors.
- General loss of confidence – many members described simply not feeling confident enough to “get out and about”. This was described as being due to perceived physical limitations or lacking the self confidence to be with people and initiate/maintain interaction. “I didn’t even go to the paper shop anymore”... additionally, the participants felt that the longer this lack of contact persisted, the more difficult it was to overcome.
- This study found that club members and volunteers viewed themselves as assets for each other offering support, advice and friendship (McKnight, 2010). Older people are often defined in policy documents and the academic literature as “problems” with multiple complex needs, a drain on the rest of society rather than as assets and resources for each other and potentially for the whole community.

Discussion

Overall the findings from this study fall within these three key concepts in relation to the participants perceived benefits from attending the friendship clubs (Table I).

It would appear from studies already done that friendships may emerge more easily from shared activities and projects than from interactions focused overtly on friendship formation (Cattan, 2002; Cattan et al., 2009; Christopher et al., 2010). The clubs evaluated in this study focused on shared activities and projects and through having a structure and content dictated by those who attend seemed a fertile ground for growing and nurturing friendships with peers. Social and recreational activities may be viewed as natural settings for developing and nurturing deeper more intense friendships particularly when the activities are controlled by attendees and relevant to their interests. Indeed this process itself may help to promote social roles which are meaningful for a group where there loss may be key factors in escalating social isolation.

The findings from this study echo previous research (Joseph Rowntree Foundation, 2004) whereby older people value interdependence and being part of a community where people care about and look after one another. The emphasis from the participants was on mutual help, offering and receiving support from others through practical advice and/or emotional support.

The volunteers were deemed crucial to the success of the clubs, appreciated by the organisation and the members themselves. The volunteers described the experience of volunteering as important as they felt “useful” and “valuable” despite ceasing paid employment. Volunteers also described the days at the club as providing structure for their week “something to get up for”. They also felt that the ongoing training and development process for volunteers that the charity organises were extremely beneficial as well as enjoyable. This finding agrees with the 2005 study undertaken by Smith and Gray (2005).

Participation in leisure, social, cultural and spiritual activities in the community help older people maintain self-esteem, maintain or create supportive and caring relationships (McCrae et al., 2005). This is achieved by fostering social integration and is the key to

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staying informed and engaged (WHO, 2007). Cattan et al. (2009) suggested that educational and social group interventions can address social isolation and loneliness which is supported by this study as a key theme was the enjoyment and benefit gained from educational activities that the clubs regularly provided.

For wider society and for services engaged with preventing social isolation and its negative impact the challenge is to support the maintenance and renewal of social connections. The opportunities we currently have for “a chat and a cuppa” and giving and receiving support are precious. Wherever they arise we should be protecting and extending these routine and inexpensive ways of keeping people connected thus mitigating against social exclusion (Favreau and Spear, 2001; Percy-Smith, 2000; Pantazis et al., 2006). A Sure Start to Later Life: ending inequalities for older people (Social Exclusion Unit, 2006a) argued that “isolation, loneliness and poor social relations are also major factors leading to the exclusion of older people from communities”.

The report discusses four primary strategies of loneliness reduction interventions:

1. improving social skills;
2. enhancing social support;
3. increasing opportunities for social interaction; and
4. addressing maladaptive social cognition.

The findings from this study suggest that the friendship clubs can help to address all four of these areas through interaction with peers and developing meaningful lasting relationships. Is “facilitation” and “enabling” the key to the success of the friendship clubs? The researchers’ observations and reflections led them to see the club attendees as expert enablers and facilitators welcoming and supporting newcomers and encouraging and supporting attendance in the future. Through the way the clubs are organised they provide the means (transport, accessible locale, and support) for the older age group to meet up and engage, so that they may form significant friendships and support each other.

Implications for practice

- Loss of responsibility causes loneliness, however any intervention to mitigate these impacts needs to value the importance of flexibility and inclusivity when establishing any club or activity. It is essential that service commissioners and providers put the development and maintenance of relationships with friends and family at the centre of their practice. Being valued by peers is important but friendships with peers for all the individuals involved in this study appeared to be the most important element of what works to reduce an individual’s perception of social isolation.

- This study highlights that friendship clubs can help tackle the challenge and subsequent effects of social isolation for the older age group. The quality of the experience the clubs provide is however essential to their success as they need to focus on valuing, supporting, and educating and enable the attendees to be the assets that they have the potential to be within their community.

References

Age Concern and Help the Aged (2009), One Voice: Shaping Our Ageing Society, Age Concern and Help the Aged, London.


Cattan, M. (2002), Supporting Older People to Overcome Social Isolation and Loneliness, Age Concern and Help the Aged, London.


GfK/NOP Organisations (2006), Spotlight Survey; Age Concern and Help the Aged, London.


**Further reading**


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