Perceptions of Group-Based Walks and Strategies to Inform the Development of an Intervention in Retirement Villages: Perspectives of Residents and Village Managers

<table>
<thead>
<tr>
<th>Journal:</th>
<th>Journal of Aging and Physical Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuscript ID</td>
<td>JAPA.2015-0138.R2</td>
</tr>
<tr>
<td>Manuscript Type</td>
<td>Original research</td>
</tr>
<tr>
<td>Focus Area</td>
<td>psychosocial perspectives, barriers &lt; psychosocial perspectives, motivators &lt; psychosocial perspectives</td>
</tr>
<tr>
<td>Statistical Methods:</td>
<td>qualitative research analysis</td>
</tr>
<tr>
<td>Free-Form Keywords:</td>
<td>walking, retirement villages, group-based</td>
</tr>
</tbody>
</table>
Perceptions of Group-Based Walks and Strategies to Inform the Development of an Intervention in Retirement Villages: Perspectives of Residents and Village Managers

Manuscript re-submitted: 16/01/21
Abstract

The aim of the present study was explore perceptions of group-based walking and gather suggestions to inform the development of a group-based walking intervention among older adults in retirement villages. Twenty-four physically inactive residents (16 female, 8 male; age range: 69-88) and 4 managers from four retirement villages were interviewed. Inductive thematic analysis revealed 6 broad themes: lack of motivation, values versus constraints, fears and confidence, need for structure, creating a sense of belonging, and the physical environment as a double-edged sword. Proposed intervention strategies included using trained walk leaders, using small groups, planning for flexibility, setting attainable goals, creating a routine, creating opportunities for sharing experiences, and planning a variety of walks.

Group-based walking programs may be used to promote physical activity but careful planning of such programs is needed in order to make it appealing and feasible to a diverse group of residents.
Perceptions of Group-Based Walks and Strategies to Inform the Development of an Intervention in Retirement Villages: Perspectives of Residents and Village Managers

Worldwide, the aging population is rapidly increasing. In Australia, people aged 65 and over constitute 14% of the total Australian population, with the Perth Metropolitan area in Western Australia showing the fastest growth in Australia (increasing by 17% in 2013; Australian Bureau of Statistics, 2013). Aging is associated with increased risks of chronic disease (both physical and mental), reduced functioning, and dependency. However, regular physical activity (PA) can ameliorate such problems, and has been identified as a critical contributor to healthy and independent living among older adults. For example, regular physical activity lowers the risk of chronic disease and increases life expectancy (Fliatarioe Singh, 2002), improves quality of life (Rejewski & Mihajlo, 2001), reduces the risk of losing independence (Marques, Baptiste, Santi-s, Silva Moat, & Sardinia, 2014) and walking may prevent or delay declines in cognitive function among sedentary older adults (Scherer, Scherer, Vanbrugh, Kings, Blom, Kramer, & Eggermont, 2014). However, most older Australians do not engage in sufficient levels of physical activity to accrue these benefits (Baby Boomers and Beyond Report, 2006). For example, a cross-sectional study has found that only 27.1% of older adults in retirement villages in Perth were sufficiently physically active to accrue health benefits (Nathan, Wood, & Giles-Corti, 2014). Equally importantly, even when older adults begin activity programs, for a variety of both external (e.g., financial) and internal (e.g., lack of motivation, perceived lack of time) reasons, participation is often short lived (Stathi, McKenna, & Fox, 2010).

It is expected that the number of retirement villages will continue to increase in line with the rapidly expanding aging population. Retirement villages are particularly interesting settings in which to examine the promotion of physical activity, as these facilities provide living arrangements and a philosophy of ‘aging in place’ by fostering the relative
independence of each resident, and by encouraging the preservation of functional capacity and well-being for as long as possible. A range of physical activity programs (e.g., lawn bowls, strength programs) are offered within retirement villages and in community settings to promote health and well-being. Further, facilities such as swimming pools and gyms are often present in these villages. However, many physically inactive residents do not partake in such programs nor do they regularly use the facilities (Miller & Buys, 2007). There is, therefore, a demonstrated need to examine the effects of alternative physical activity programs that appeal to those segments of retirement village residents who do not engage regularly with existing programs. In the present study we focus on walking because it is a safe and free mode of physical activity that can be self-sustained and which does not require any specialist skills (Morris & Hardman, 1997). Thus, it is not surprising that it is the physical activity of choice for most older adults, particularly those otherwise unaccustomed to physical activity (Siegel, Brackbill, & Heath, 1995). Evidence suggests that for older adults living with some chronic illness or disability (which however does not prevent them from walking), accumulating 5000 steps per day is realistic and associated with clear health benefits (Mutrie et al, 2012; Tudor-Locke, Hart, & Washington, 2009).

The overarching aim of the present study is to gather perspectives of one such program, group-led walking, to help inform intervention development. Indeed, according to key health intervention frameworks, in preparing the development of interventions, it is vital to consider perceptions of acceptability, feasibility and usability of a proposed intervention by the target group (Craig, Dieppe, Macintyre, Michie, Nazareth, & Pettigrew, 2008; Moore, Audrey, Barker, Bond, Bonell, Hardeman,…Baird, 2015).

Theories of Behaviour Change Used to Understand Older Adults’ Physical Activity
Social Ecological models (e.g., Green, Richard, & Potvin, 1996; Satariani & McAuley, 2003) have been employed to examine factors operating on numerous levels of influence, including the individual, social and environmental. A narrative review of barriers to physical activity found support for the role of individual, social and environmental barriers of participation in physical activities for older adults in long-term care settings (Benjamin, Edwards, Ploeg, & Legault, 2014). Importantly, they also showed that barriers in these populations operate not just independently, but that they also interact. As the development of effective interventions necessitates the consideration of barriers the target group experience, the findings of the review highlight the utility of social ecological models in guiding intervention development. Thus, this framework was adopted in the present study as we explored influences and options for interventions at multiple levels of influence.

While social ecological models provide a broader framework of influences on behaviour, they reveal limited insight about why and how different level influences may foster health-related behaviour. Two additional theories, Social Cognitive Theory (SCT; Bandura, 1998) and Self-Determination Theory (SDT; Deci & Ryan, 2000), are useful to this end. SCT is useful to intervention design in that it proposes a range of key influences on self-efficacy, which, in turn, is a key individual-level determinant of physical activity in older adults (McAuley, Mullen, Szabo, White, Wójcicki, Mailey,…Kramer, 2011; Koeneman, Verheijden, Chinapaw, & Hopman-Rock, 2011). Specifically, it proposes that mastery experiences, vicarious (or modelling) experiences, verbal persuasion and physiological/emotional states influence the degree to which individuals develop self-efficacy for a behaviour. These influences can be addressed in interventions to promote physical activity in older adults and may be particularly relevant for group-based programs.

To foster sustained participation in volitional physical activity, high quality motivation for the behaviour is of central importance. SDT offers insight into how high
quality motivation can be fostered and thus adherence and positive health outcomes can be achieved. The satisfaction of three psychological needs, the needs for autonomy, competence, and relatedness are key predictors of the quality of motivation. These needs can be satisfied via the social contextual environment, for example in the way that exercise leaders communicate with exercise participants. There is some evidence suggesting that satisfaction with the need for relatedness may be particularly important in the early stage of exercise adoption. For example, qualitative research with a group of adults initiating participation in a group-based walking program, who were previously physically inactive, has shown that the feelings of relatedness that developed between participants in a walking program and their walk leaders was central to participation in the adoption phase of the program (Kinnafick, Thøgersen-Ntoumani, & Duda, 2014). This adds to results of other qualitative research showing that the presence of other people is an important facilitator of PA participation (Gallagher, Gretebeck, Robinson, Torres, Murphy, & Martyn, 2010; Stathi, Gilbert, Fox, Coulson, Davis, & Thompson, 2012; Strath, Isaacs, & Greenwald, 2007), and in older adults residing in retirement villages (Nathan, Wood, & Giles-Corti, 2013). In addition, in community-dwelling older adults, a recent large scale survey study involving more than 50,000 adults aged 65 and over has shown that the facilitation of social relations between older adults and their neighborhood peers may promote walking for transportation purposes (Van Cauwenberg, De Donder, Clarys, De Bourdeaudhuij, Buffel, De Witte, Deforche, 2014). SDT suggesting that any effects may be more than ‘doing things’ or being with others, and more about the quality of those relationships and engendering feelings of belongingness.

Despite rather extensive work on barriers to physical activity in older adults (see e.g., Benjamin et al., 2014), suggestions of how specific (group-based walking in the context of the present study) interventions can be designed to make them more appealing to participants, and more feasible, are rarely considered. Thus the main aim of the present study was to
explore perceptions of group-led walks and strategies for the future design of such interventions for older adults in retirement villages, taking into account the context of the setting (as perceived by both residents and managers), and the challenges and needs faced by the target group.

We aim to contribute to existing qualitative research on the influences on walking in older adults in a number of ways. First, we consider influences on group-based walking specifically. Second, we explore this question in retirement village residents, not community-dwelling older adults who have been the focus of most previous research among older adults. Third, we take into account perspectives of retirement village managers to complement, and bring an additional perspective to, residents’ views. Adding the perspectives of managers is important as we consider them to be key social actors in this setting who may impact change in the residents through the level of support they provide to the residents on a daily basis. Finally, we explore possible strategies which could be used in future group-based walking programs in the retirement village setting as suggested by residents themselves and the village managers.

Method

Participants and General Procedure

Ethics approval was obtained from an ethics review board at an Australian university before retirement villages were approached. Emails followed by phone calls were made to a broad range of retirement villages within the Perth Metropolitan area. If managers of the villages were interested, they advertised the study to the residents via flyers placed in residents’ letter boxes and by placing posters on notice boards. For two (out of four) of the retirement villages who took part, the researchers were invited to provide a 15 minute talk (which was advertised to residents) about the study with a view to recruiting participants. Twenty-four residents
(n=8 males; n=16 females; age range: 69-88) and 4 managers (all were female and younger than residents) from 4 different retirement villages in the Perth Metropolitan area, Australia, were individually interviewed in person. All participants resided in independent living units within the retirement villages, which in turn were all lease-for life or resident funded (as opposed to donor funded or subsidised). Thus, participants represented groups of relatively high Socio-Economic Status (SES). The retirement villages were located across different areas of Perth Metropolitan area (north, south and west of Perth), with one located by the coast, and two located close to the main river in Perth. We purposively selected a population with varying degrees of past and present physical activity involvement (including walking). Thus the participants included individuals who were currently engaged in some physical activity (but not necessarily regularly), individuals who described themselves as never having been physically active, and residents identifying themselves as having been physically active in the past but for whom physical activity levels had decreased with age. We aimed for thematic saturation, although, in accordance with Green and Thorogood (2004), we recognise the possibility that themes may be limitless.

**Interview Method and Analytical Procedure**

A semi-structured interview schedule was used. All interviews were pre-arranged and conducted on an individual basis with interviews taking place in quiet locations chosen by participants, with minimal risk of interruption. All the participants chose their own homes as their preferred interview venue. Interviews lasted an average of 30 minutes each (range: 20-53 minutes). Broad open-ended interview questions were used in the study. Questions were guided by the theoretical frameworks. For example, we were careful to include questions spanning individual, social and environmental factors in line with Social Ecological Frameworks. For the residents, the questions included “How do you feel about walking?”, “What prevents you from walking as much as you would like?”, “What could help you to
walk more?”, “How do/would you feel about walking as part of a group?”, “What do we need
to take into account in planning a group-based walking program that would work for you both
in the short and the long term?”. Follow-up prompts (such as ‘why’?, ‘why not’?, ‘can you
provide an example?’), were added as and when necessary to obtain in-depth information.
The questions posed to the managers were similar, but adapted to refer to what they thought
about group-based walking for the residents, and what needed to be taken into account in
planning group-based walking programs.

A thematic analysis was conducted on the data. Thematic analysis involves
identifying, coding, and reporting themes (i.e., patterns) across the data set (Braun & Clarke,
2006). This type of analysis also allows for active researcher interpretation (Tuckett, 2005).
We take Braun and Clarke’s position that themes do not just ‘emerge’ from the data. Rather,
the researchers take an active role in identifying, labelling and reporting themes to the reader.

To ensure rigor in our analysis, two members of the research team independently
coded the interviews, and we then followed Braun and Clarke’s (2006) six phase approach to
thematic analysis. This included looking for convergence and divergence in accounts between
(residents compared to managers) and within (comparing residents with other residents, and
managers with other managers) groups. The analysis was facilitated by NVivo 10. Themes
were all independently produced by each of the two coders. Any discrepancies in themes
were resolved via extensive discussion between the two coders.

Results

Aggregate themes for residents and managers were developed rather than separate
ones for each group as the data suggested that the themes emerging across groups were
broadly similar. The managers differed somewhat in the extent to which they promoted
physical activity among their residents, but none of them were led specific physical activity
programs as it was not part of their jobs. One manager highlighted that “it is independent living so it is up to them to do what they want”, and there was a clear sense amongst all the managers that there was a delicate balance between advocating the value of physical activity and respecting the residents’ choice to decide how to live their own lives.

Six broad themes were identified from the interviews: ‘lack of motivation’, ‘values versus constraints, ‘fears and confidence’, ‘need for structure’, ‘creating a sense of belonging’ and ‘the physical environment as a double-edged sword’. While these themes overlapped to some extent, each of these was associated with proposed specific intervention strategies. The themes and the relevant intervention strategies are illustrated in Table 1, and presented in more detail in the following.

**Lack of motivation.** The notion of time availability was mentioned frequently by participants and (one of) the managers. Most participants indicated that time was a resource, noting that they had plenty of time to engage in activities since retiring. For example, an 87-year old female resident said “I can’t say I don’t have enough time because I have plenty of time”, with similar accounts being narrated by other residents. Lack of motivation seemed to be a reason why many residents did not partake in physical activities despite reporting having the time to do so. Some participants described loss of motivation to walk following the death of their spouse. Some noted that they did not particularly enjoy walking, that lack of motivation or willpower would prevent them from taking part in group-based walking programs, or that they already had enough opportunities for social activities.

Other participants mentioned that they had a very busy life and would struggle to fit in any further activities, which was confirmed by one of the managers. Again, lack of motivation was likely responsible as their accounts revealed that this perceived lack of time was more about other activities taking priority over walking, which could be an expression of
lack of motivation. This was aptly described by one of the male residents (aged 76): ”I think if something is really interesting, you make your time”.

Walk leaders were identified by both managers and residents as being key drivers of motivation to participate. For example, one manager, advocating for more walkways in the village who was involved in some facilitation of physical activities among residents, and who reported being physically active herself, noted: “I think someone to drive it. Having someone who’s committed and can coordinate things is really important, and someone that can give people a gentle reminder if they haven’t been for a while. It’s someone that really is a personable person, but can kind of get people off their backsides”. She continued to emphasise the importance of having residents themselves actively involved in leading walks “So having someone, one of our residents, probably a little bit younger, and then maybe training people up so that they can alternate or have someone there as a point of contact or reference. But someone that’s quite dynamic”. A different manager described how the social dynamics in the villages could be a great motivator for some residents: “I think group’s the best way. I mean, most of our residents when they’re participating in stuff, you’ll see them, they’re walking off in pairs to go and they play bridge or whatever it might be. So it’s good to have – particularly when you’re talking about a physical activity, because sometimes they can’t be bothered. If you got someone coming to pick you up, if your neighbour’s walking past to collect you as you go off, it’s a little bit harder to say, no. <laughs>”.

Values versus constraints. All residents and managers emphasised the value of walking for health and well-being. Benefits were described in terms of physical health and psychological well-being. For example, some mentioned that walking was essential to preserve physical function. An 82-year old female resident noted “I think it’s [walking] most essential. I see people here who don’t do any and they get to the stage their joints and muscles won’t work”. Mood-related factors were mentioned in relation to the fact that walking could
help participants feel better after a walk: “It makes me feel good in myself. Makes me…I feel like I can relate my body to my life” (Female resident, aged 71). Several participants were worried about Alzheimer’s disease, and believed walking might help to prevent this. Indeed, some noted that walking could improve memory “Because you need to keep your, I suppose, your brain ticking over all the time” (Male resident, aged 80). Other residents believed that walking as an activity could delay aging, and could keep diseases and chronic health conditions under control. Several participants, and two of the managers, used the phrase “use it or lose it” when describing the importance of exercise.

However, there was an apparent tension between recognising the numerous health benefits of walking and the (perceived) inability to do it because of poor physical or psychological health. Thus, although group-based walking was generally valued as an important means of promoting health and well-being, residents’ and managers’ expectancies ran counter to those values as they perceived themselves (or the residents) often unable to do it. For example, a 69-year old female experiencing a lot of pain due to a neurologic condition exemplified this well. She had been physically active in the past, and valued the effects of walking, yet her level of pain could often disrupt her positive intentions “I like walking and I’d like to do any – every day would be good for me to do it because it gets – it’s physical and emotional and stimulation to go look at different things…The increase in pain and my balance …it controls how much activity I can do and my pain changes from day to day…I never know what it’s gonna be when I wake up”. A different male resident, who had been physically active in the past yet not regularly since moving to the retirement village, articulated clearly the tension between the value of activity and his physical capabilities in terms of an important behavioural choice he had to make: “I mean I’ve been battling now for about three years whether to get one of these electric scooter things. And I’ve deliberately not
got one cause I think the moment I do that I’ve succumb – I’ll have to bare the pain and try to keep moving…”.

One of the managers described physical limitations as the greatest influence on walking and commented on the wide range of physical capabilities of residents which would make it challenging to design group-based walking programs. “The biggest one is physical limitations. So, we have residents that would probably love to be doing regular exercise but can’t. Sometimes it’s permanent; sometimes it’s just a condition depending on whether they’ve got a particular medical issue at that point in time, but that is a big issue”. A different manager (who endorsed the importance of walking for health but who was less actively involved than other managers in directly promoting activity among the residents) took a somewhat different stance when she described the value of walking, implying that it could help the residents take away the focus from pain “[group-based walking]. I think it would be good for them, stop them complaining about their aches and pains maybe”.

The size of the walking groups was identified by many residents and managers as a key consideration in the design of group-based walking interventions. This consideration mainly stemmed from a recognition that people needed to be matched based on physical capability. This was expressed in the following way by a male resident (aged 76) “…if you get with a group, you’re either trying to keep up with the fastest person or the strongest or the best or whatever, or you’re restricted to the least fit or the slowest”. One of the managers also highlighted the importance of using small groups as a means of motivating older adults to be active as different physical illnesses and conditions could impact the level and quality of interaction residents could have on the walks: “for a lot people, macular degeneration is a big thing that will stop people from going out because they can't see anything. Deafness, you know, those obstacles really impinge on interaction. Mental impairment – so that's dementia. Alzheimer's is a huge, huge, huge factor. You know, no two blades of grass are alike. And
so, I try to have small clusters of groups formed… But small groups is the key to getting people enthused enough to become active… So probably a group of six – groups of six, yeah”. With regard to other intervention strategies that could be implemented to address issues related to differential levels of capabilities, only the managers came up with suggestions. One manager proposed the use of a café stop mid-way through the walk (as one was located on the premises), and that those residents who felt unable to walk back could take an electric buggy for transportation back to the starting place. Another suggestion made by a different manager pertained to having two walk leaders per walk (one at the front and one at the back).

**Fears and confidence.** Fear and confidence served as additional influences on decisions to walk. Fear of falling was described as an important consideration by one of the managers: “A lot of residents worry that if they walk one place and that they may not be able to do the walk back, whether it be too far or uphill for the return trip…fears and anxiety only gets larger as they get older”. Residents themselves described more specific fears; namely the fear of falling or losing balance. For example, one female resident aged 83 described how she had lost confidence due to poor balance. Setting attainable goals was suggested by one of the managers as one way of enhancing residents’ confidence “…would be the really important thing is that, you know, for elderly, they’re attainable goals. They’re not gonna be “Right, you have to do 15,000 steps today,” ‘cause that’s not gonna happen. Some might but as long as they’re achievable goals, I think it would be useful”.

The walk group format appealed to many residents due to the enhanced perceptions of safety, which was intimately tied to increased confidence. In relation to this, one factor that could help build confidence in the residents was the knowledge that others were there to help them in unforeseen circumstances during walks. One female resident aged 69 expressed how
taking a wheelie frame could help with her balance, and as long as there was someone helping
her lift it over obstacles on walking routes, she would be happy to walk.

Strategies perceived by residents to be important for participation included using
trained walk leaders who could verbally encourage participants and help participants feel
accountable. When prompted about the use of pedometers, a 75 year-old female resident
explained: “[logging steps does help]…particularly if you’re answerable to someone to report
back”. Another important factor identified was building up difficulty of walks (such as
duration) gradually.

**Need for structure.** Several participants mentioned that the relocation into retirement
villages, where they no longer needed to look after a big house and garden and the associated
energy expended on cleaning and looking after these, necessitated other ways of keeping
active: “I used to be so…more active because I lived in a house with stairs and up and down
the stairs; a garden to attend to. And here, I’m finding that I’ve got to re-establish a new
routine to get a little more involved” (Female resident, aged 78). She described this change in
activity patterns from ‘forced’ to ‘chosen’ (i.e., planned) activity. The need to set up a new
routine was also emphasized by other participants who had recently relocated to the villages.
Walking was welcomed as part of establishing that routine. A male resident (aged 79) spoke
of his desire to increase levels of planned structured walking, as the move into the retirement
village meant that the opportunities to engage in incidental lifestyle activities had diminished:
“hip permitting, I’m gonna walk more here to get it back to where it used to be because
there’s no lawn to cut, there’s no garden to weed, and there’s no swimming pool to clean so
yes, health permitting of course”. While these residents appeared to be acutely aware of the
need to establish new routines or habits, one of the managers implied that many residents
were passive victims of ‘cultural’ circumstance: “… when you downsize…You come into a
community where things are a little bit more easily accessible for you. And it's very easy to
fall into a habit sometimes, a cultural habit that you won't be aware of, whereas you expect
things done for you. And so, there's a little bit of that dynamic at play”.

Although one resident mentioned that it would be difficult for some to change their
habits, many residents and three of the managers believed that committing to a group and a
program where they felt accountable and were expected to attend at a certain time would help
them increase the frequency and distance walked. Setting fixed days and times for group-
based walks were perceived to facilitate the incorporation of walking into the residents’
routine according to both managers and residents, with residents indicating also that setting
fixed days and times provided structure: “It’s something to look forward to. That’s what
people like; something to know they’re going to do something…something planned” (Female
resident, aged 71).

Creating a sense of belonging. The social environment was perceived to be
important for facilitating walking participation. Sometimes this was described as merely
having company, while several other residents emphasized that it was the act of sharing
interesting and stimulating experiences as part of a walk which was central: “If I saw a
beautiful bird I’d love to say, ‘Oh look at that gorgeous bird’. It’s a sharing thing” (Female
resident, aged 77). An 87-year old female resident noted how time passed more quickly and
the walking distance seemed shorter when walking with others. Another female resident, aged
77, had experienced that having company on her walks helped her walk further than she
would have done on her own. This perspective, however, was not universal as some residents
did not feel a need to belong, even though they did not dislike company when walking. One
of these residents, however, noted that walking with others in a group may be beneficial for
people who did not walk regularly.
Planning social events following each walk (e.g., having coffee together) could enhance feelings of belonging among participants which was cited as an important motive for partaking in the walks for many residents. In relation to this theme, several managers spoke of the importance of inclusivity of residents which could also be achieved via group-based walking programs by having mobile residents volunteer to assist more fragile residents so they felt able to take part in the program. Including as many residents as possible in a future program was particularly important to one of the managers, who perceived herself as a ‘facilitator’ of physical activity: “Everything I introduced here was to keep people away from isolation”.

The physical environment as a double-edged sword. One particularly dominant environmental factor impacting walking for this population was heat, particularly during the summer months: “I used to love the summer once, but as I’ve got older and the body changes, in the summer you go, ‘Ah!’” (Female resident, aged 74). It was therefore often suggested that a group walk would be best early in the morning, before it became too hot, yet not too early as it would be too cold and dark. Choosing the times of walk is important in a city like Perth, where the research took place, where, in the summer, the temperatures can rise to 45 degree Celsius during the day.

A pleasant natural environment in which to walk was seen as imperative to many participants. For example, some noted how nature and peaceful river settings added to the experience of walking. In relation to this, many emphasized the need to experience stimulation (‘seeing something going on’) as part of group-based walks, which was often tied to natural phenomena (such as seeing interesting birds), although developing building sites were also mentioned. One manager suggested adding conversations about nature as part of group walks, and making it ‘more than a walk’. Adding walk maps to accompany the walks
wass reported by one resident as a suggestion to further stimulate the cognitive health of participants.

The desire to experience stimulation in the natural environment had to be balanced against considerations of safety. Safety was highlighted by both residents and managers and was related to traffic and perceived threat from strangers. For example, wide paths shared between pedestrians and cyclists appeared to be a barrier to group-based walking. Further, walking in unfamiliar or remote places alone was avoided, yet were not seen to be problematic if walking as part of a group: “I think, I don’t feel too safe. I wouldn’t – if I was with someone else I would like to go to an area that I don’t know, like around a lake, it wouldn’t bother me” (Female resident, aged 69). The group format was perceived by residents to provide a sense of safety which thus made them more willing to explore new routes. Thus, strategies for design of future group-based walking programs could include incorporating scenic, and a variety, of walk routes.

Discussion

The current study explored perceptions of group-based walks, and specific strategies that could be adopted in the design of future group-based walking interventions among residents of retirement villages. Residents and managers asserted that walking was important for physical, mental, and social health. Despite this knowledge, and many residents reporting that they had adequate time to be physically active, lack of motivation appeared to be a rather powerful was one of the reasons for lack of involvement, along with other constraints such as poor health, pain, fear and lack of confidence. Some residents, and managers, believed that a trained dynamic walk leader could help motivate residents become more active. Other recent qualitative research in long-term care settings in the US has also identified a motivated leader as an important influence on physical activity participation (Phillips & Flesner, 2013).
effective leader could also facilitate a greater sense of belonging between residents and address concerns about fear. Intervention research, and a meta-analysis, guided by SDT in the health setting has shown that the social context, such as a walk leader, can have a powerful effect on the quality of an individual’s motivation (e.g., Kinnafick et al., 2014; Kinnafick, Thøgersen-Ntoumani, Duda, & Taylor, 2014; Ng, Ntoumanis, Thøgersen-Ntoumani, Deci, Ryan, Duda, & Williams, 2012). This research suggests that individuals can internalise (i.e., improve the quality of) their motivation if the leader uses strategies that support the individual’s psychological needs for autonomy, competence and relatedness. Involving the residents themselves as coordinators or leaders was proposed by one of the managers in the study as a potentially useful means of motivating participants to take part in group walks, but SDT research suggests that some training in autonomy-supportive strategies may be required to facilitate not just adoption, but sustained participation among the residents (Ng et al., 2012).

Residents and managers all acknowledged that important constraints (sometimes) impacted on the residents’ ability to perform the walks. These perceptions align with previous research showing that physical health problems, illnesses, disease and pain have been consistently reported as barriers to participation in physical activity among community-dwelling older adults (Koeneman et al., 2011; Stathi et al., 2012), and, recently, also in older adults in long-term care (Benjamin et al., 2014). The findings from this study add to extant literature by suggesting that group-based formats can be designed to take into account these difficulties, for example by planning breaks and flexibility (e.g., buggies used to transport residents for part of the walk back), by using small groups (maximum 6 people per group) and through the mere physical support other (more mobile) residents can provide for participants using assistive devices.
A prominent psychological factor included fear (often of falling) which sometimes translated into lack or loss of confidence. Indeed, self-efficacy (a specific type of confidence) has been consistently identified as an important facilitator of physical activity in community-dwelling older adults (Koeneman et al., 2011), and is a key determinant of adherence to physical activity in older adults (McAuley et al., 2011; Koeneman et al., 2011). McAuley and colleagues (Hall & McAuley, 2011; McAuley, Konopack, Morris, Motl, Hu, Doerksen, & Rosengren, 2006) have demonstrated that self-efficacy for balance and levels of physical activity are closely associated in older adults residing in independent and assisted living settings. McAuley and Blissmer (2000) have suggested that group-based exercise may enhance self-efficacy via social support and encouragement provided via group members. Further, it is possible that self-efficacy could also be increased in group-based walking programs via modelling influences as postulated by Social Cognitive Theory (Bandura, 1998), i.e., by observing others similar to themselves successfully engaging in physical activity. Thus, group-based walking may be an effective means by which residents with otherwise low levels of self-efficacy may improve their confidence to be physically active. The addition of a walk leader trained in appropriate motivation techniques could further increase self-efficacy through verbal persuasion.

Having a daily structure in place and creating a routine were important considerations regarding the perceived appeal of group-based waking programs. These findings are commensurate with themes identified by Biedenweg, Meischke, Bohl, Hammerback, Williams, Poe, and Phelan (2014; i.e., ‘desiring a routine that promotes accountability’) in older adults who chose to take part in organized physical activity programs. Incorporating physical activity into one’s daily routine was also identified as a strategy facilitating physical activity in another study with older adults residing in long-term care facilities in the US (Phillips & Flesner, 2013). The findings from the present study suggested that one way to
accomplish this was by setting fixed days and times for group-based walks. Several
participants interviewed in the present study had recently relocated into the villages from their
previous homes, and they spoke of the need to establish a ‘routine’ and welcomed the idea of
participating in a group-based walking program both as a means of establishing a
routine/structuring the day, and as a way of integrating themselves into the new community
(via the development of new friendships). Research on establishing habitual behaviour
suggests that life transitions represent times when prior habits are disrupted, and the scope to
effect behaviour change may be greater as conscious decision-making processes largely drive
behaviour change (Evenson, Rosamund, Cai, Diez-Roux, & Brancati, 2002). Thus, the
relocation to retirement villages may represent a unique opportunity to promote group-based
walking among new residents. Creating a daily structure in this way could also be an effective
way of enhancing a sense of belonging among residents early on, which was identified in this
study as another important theme. A useful direction for future research would be to
implement group-based walking programs targeted to individuals transitioning into retirement
villages and explore its effects on sustained physical activity, health, well-being, and
loneliness.

A central appeal of group-based walking for residents was the interaction with other
residents, both during and after walks. This finding is consistent with findings from other
qualitative studies with community-dwelling older adults related to organized exercise
programs (Biedenweg et al., 2014), walking (Gallagher et al., 2010) and general physical
activity participation (Strath et al., 2007), and in adults in retirement villages (Nathan et al.,
2013). The present study adds to this literature by suggesting that social benefits do not
merely include ‘being’ together, but also ‘sharing experiences’ (e.g., tied to natural
phenomena). It thus seems critical that group-based walking programs provide opportunities
for sharing. Moreover, group-based walks provided an opportunity for mobile residents to
assist less mobile residents on walk, further fostering inclusion. By getting together and sharing experiences, some key constraints related to fears and confidence, as well as other themes highlighted in the results, could be tackled.

Supporting suppositions of social ecological models of behaviour change that physical environment needs to be considered in addition to individual and social factors, the weather, the aesthetics of the environment (pleasant peaceful nature settings), and safety were most prominent. These findings are largely commensurate with Moran, Van Cauwenberg, Hercky-Linnewial, Cerin, Deforche, and Plaut’s (2014) review of qualitative studies. Findings from the current study suggest that several of these determinants can be addressed in the design of group-based walking programs. Specifically, walks can be scheduled early and/or late in the day, scenic routes can be planned, and safety concerns are alleviated to some extent via the presence of both walk leaders and other residents. Variety in walk routes also appeared important to incorporate and this could be capitalised on when people walked in groups given safety concerns expressed by someone with regard to exploring new routes on one’s own. A recent study informed by SDT, using community-based adults, has demonstrated that perceptions of variety in exercise are important to take into consideration in the prediction of exercise-related well-being in addition to fostering satisfaction with autonomy, competence and relatedness in participants (Sylvester, Standage, Dowd, Martin, Sweet, & Beauchamp, 2014). This suggestion needs to be further explored in groups of older adults.

Residents and managers had broadly similar perceptions of group-based walks as reflected in the description of the themes. Both groups were acutely aware of the health benefits of walking. This may be partly a reflection of the residents generally being of relatively high SES, and more likely therefore to be health literate. However, subtle differences emerged between residents’ accounts and those of (some of) the managers. For example, one of the managers noted that group-based walks might help distract residents
from their aches and pains, while the lived experience of many of the residents was one characterised by daily struggle to function physically which had a real impact on their daily decisions to walk. The fact that the managers were younger and had not experienced similar struggles with health could at least partly account for this discrepancy. As managers have some influence over the physical activity programs that are initiated in the retirement villages, it is possible that what (some) professionals think are needed to help residents become more physically active may not improve practice because it is not a reflection of the residents’ reality.

Another difference between the accounts of residents and managers was that managers provided more specific suggestions about strategies that could be used to inform future programs. This may be a reflection of inactive residents not having had the experience of knowing what may help drive their participation, which in turn could (at least partly) explain their lack of involvement. Although the several of the managers considered themselves as ‘facilitators’, they all agreed that it was not their job to ‘motivate’ residents. Therefore, although the managers had potentially useful suggestions, these suggestions were not translated into practice. This demonstrates the need to explore the perspectives of both professionals and service users in the development of physical activity interventions.

Although the results of the present study may inform future intervention development, some limitations of the study should be considered. As discussed by Patton (2015), it is important to consider the depth and breadth of qualitative studies. In the present study we chose to explore the perceptions of individuals with a range of experiences, which might have limited the depth of our inquiry. Another limitation was that men constituted only one third of the participants. Indeed, over-recruitment of women to walking interventions is common (Ogilvie, Foster, Rothnie, Cavill, Hamilton, Fitzsimons, & Mutrie, 2007). Further, although based in different locations in the Perth Metropolitan area, the retirement villages were all
located in relatively pleasant physical environments, and all participants lived in resident-funded villages characterised by relatively high SES.

**Conclusion**

Retirement village residents may constitute a captive target group when implementing group-based walking programs as a means to promoting health and well-being. The present study illustrates that group-based walking may be an attractive option for relatively physically inactive residents as a means to improve or manage physical, psychological and social health. However, careful planning of such programs is needed in order to make them appealing and feasible for residents with a range of different needs and capabilities. It might be important to intervene as early as possible after people move into the retirement villages, to prevent residents forming inactive habits. Specific recommendations include involving trained walk leaders, using small groups, planning for flexibility, setting attainable goals, creating a routine, creating opportunities for sharing experiences, and planning a variety of walk routes.
References


Table 1

Themes and Suggested Intervention Strategies

<table>
<thead>
<tr>
<th>Themes</th>
<th>Intervention strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lack of motivation</td>
<td>Use committed dynamic personable walk leaders</td>
</tr>
<tr>
<td></td>
<td>Involve residents themselves as coordinators/leaders</td>
</tr>
<tr>
<td></td>
<td>Take advantage of the social dynamics</td>
</tr>
<tr>
<td>2. Values versus constraints</td>
<td>Use small groups (max 6 people)</td>
</tr>
<tr>
<td></td>
<td>Plan for flexibility (e.g., use of electric buggies for parts of walk)</td>
</tr>
<tr>
<td></td>
<td>Use two walk leaders per walk (one at the front and one at the back)</td>
</tr>
<tr>
<td>3. Fears and confidence</td>
<td>Set attainable goals</td>
</tr>
<tr>
<td></td>
<td>Use trained walk leaders</td>
</tr>
<tr>
<td></td>
<td>Verbal encouragement by walk leaders</td>
</tr>
<tr>
<td></td>
<td>Build up difficulty (e.g., duration) of walks gradually</td>
</tr>
<tr>
<td>4. Need for structure</td>
<td>Create a routine: schedule walks at fixed days and times</td>
</tr>
<tr>
<td></td>
<td>Enhance sense of ‘accountability’</td>
</tr>
<tr>
<td>5. Creating a sense of belonging</td>
<td>Create opportunities for sharing experiences</td>
</tr>
<tr>
<td></td>
<td>Plan social events (e.g. coffee) following walks</td>
</tr>
<tr>
<td></td>
<td>Have mobile residents assist less mobile residents</td>
</tr>
<tr>
<td>6. The physical environment as a double-edged sword</td>
<td>Plan walks for early mornings or late afternoons</td>
</tr>
<tr>
<td></td>
<td>Plan for scenic, pleasant, and a variety of walk routes</td>
</tr>
<tr>
<td></td>
<td>Add value to walks (e.g., walk maps, conversations about nature)</td>
</tr>
</tbody>
</table>