

## Quality of Life in the Fourth Age: Exercise Experiences of Nursing Home Residents

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Life in the Fourth Age has been typified as a time of continued functional decline and reduced quality of life. Exercise might positively affect this experience. This study explored the exercise experiences of nursing home residents age 86–99 years who participated in a 6-month exercise intervention. An interpretive phenomenological approach was adopted. Twenty-one interviews were held with 14 residents at baseline and 7 residents at follow-up. Although their expectations were initially conservative, by the end of the intervention participants noted improved quality of life through better mobility, decreased fear of falling, and feelings of achievement and success. They valued the program as an opportunity to do something for themselves, to add something to their weekly routine, to meet other people, and to be more active generally. The professionalism of the exercise instructor appears to have been critical, balancing principles of safe and effective practice with the need to ensure that participants had fun in a supportive environment.

**Key Words:** qualitative, older adults, physical activity, well-being

In the optimistic view of later life conceptualized in Laslett's (1989) map of life, four ages reflect the changes experienced throughout life, with the Third Age being the crown of life. Current research evidence supports this optimism. Baltes and Smith (2003) presented data from the Berlin Aging Study (Baltes & Mayer, 1999) that demonstrate the ability of people in the Third Age to show gains in mental and physical function, cognitive reserves, emotional intelligence, and wisdom. Research evidence regarding people in the Fourth Age, those age 80–85+, however, presents a less positive picture (Baltes & Smith, 2003). Loss of cognitive potential and the ability to learn, limits of functional ability, and increased prevalence of dementia are examples of changes that led Baltes and Smith to conclude that "the Fourth Age tests the boundaries of human adaptability" (p. 129).

Life quality in an institutionalized environment is often thought to be strongly compromised, and reaching the Fourth Age is seen as a phase of loss and decline (Baltes & Smith, 2003). Salkeld et al. (2000) found that 80% of female respondents age 75+ said that they would rather be dead than experience the loss of independence associated with entering a nursing home. Despite the fact that people over the age

of 75 make up the fastest growing segment of the world's population, research on the characteristics of the Fourth Age and the needs of institutionalized older people has been limited (World Health Organization, 2002).

Research on exercise and aging follows a similar pattern. Increasingly, research evidence suggests that exercise could improve the developmental, physical, mental, and social dimensions of well-being of people in the Third Age (Fox, Stathi, McKenna, & Davis, 2007; Stathi, Fox, & McKenna, 2002). Specifically, exercise participation is linked with increased independence and ability to perform everyday activities (Phelan, Williams, Penninx, LoGerfo, & Leveille, 2004), slower progression of functional limitations (Miller, Rejeski, Reboussin, TenHave, & Ettinger, 2000), better cognitive function (Weuve et al., 2004), better sense of self-worth and self-esteem (McAuley, Blissmer, Katula, Duncan, & Mihalko, 2000), improvements in social network, and a more meaningful and rewarding life (Ohno et al., 2000). Most of this research, however, has largely excluded frail and institutionalized older people and focused on community-dwelling older adults who are relatively healthy, active, and mostly in the Third Age group.

Frail older people perform daily activities at a level close to their maximum physical capacity; a small decrease in functional ability could lead to dependence and the negative consequences that this loss brings to quality of life (Hortobagyi, Mizelle, Beam, & De Vita, 2003). Exercise appears to be very important for the prevention or reversal of frailty (Fiatarone-Singh, 2002). In a study with older adults age 71–100 years, Mihalko and McAuley (1996) reported a 50% increase in muscle strength in comparison with their control group. Similarly, Morris et al. (1999) reported that nursing home residents had significantly reduced decline in activities-of-daily-living functioning after participating in a 10-month intervention.

From a participant perspective, exercise reduces the risk of falling, which is a major concern for frail older people (Chang et al., 2004). Exercise programs could decrease the number of falls, which are closely associated with functional impairment and disability (LaStayo, Ewy, Pierotti, Johns, & Lidstedt, 2003). Even frail older people with multiple pathologies and disabilities can derive functional, mental, and social benefits from exercise participation (Young & Dinan, 2005). The use of exercise for increasing functional ability and independence can be a noninvasive, low-cost option, with the added attraction that exercise classes are often highly valued by those taking part (Finch, 1997).

There are clear markers for setting up effective exercise programs for older people living in the community (King, Rejeski, & Buchner, 1998), but the design of successful exercise programs for institutionalized older adults poses several challenges. People living in nursing homes sustain more falls and more severe injuries than community-living adults, and the energy cost of activities might be significantly higher for them. In addition, targeting the modification of cardiovascular risk factors could be less relevant than targeting strength and balance improvement. For the frailest older people, being sedentary is a greater risk than being active (American College of Sports Medicine, 1998), but carers might—unwittingly—encourage nursing home residents to be inactive, because inactivity reduces exposure to risk scenarios for falling. Falling has multiple implications for both the individual (injury, fear, distress) and the carer (injury rehabilitation, questioning on level of care, distress).

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Research on quality of life from the perspective of institutionalized older people has been limited, and this sharply contrasts with the needs of professional carers who wish to ensure the design and provision of appropriate services. Walker (2004) criticized the overreliance on only health-related indicators of quality of life and stressed the need for a new agenda, "one that is more holistic and more reflective of diversity in aging than previous approaches" (p. 662). This new agenda, however, requires a transition from the positivist paradigm to more interpretive approaches that focus on the subjective experience of an individual and how the individual identifies and values the importance of different domains of quality of life. Borglin, Edberg, and Hallberg (2005) identified life values, significant others, material wealth, home, activities, and health as important components of the quality of life of community-dwelling people in the Fourth Age. Following a symbolic-interactionist approach, Tester, Hubbard, Downs, McDonald, and Murphy (2003) showed that an interpretive approach could offer new insight to quality of life of institutionalized older adults. The perceptions of people living in care homes were clustered around four main interrelated themes: sense of self, the care environment, relationships, and activities. Activities appear to be a factor of quality of life for both community-living and institutionalized older people, which highlights the potential of exercise for nursing home residents. Nonetheless, the pathways through which exercise affects the quality of life of people living in care homes need to be fully understood before well-intended exercise initiatives can be more effective in this setting.

The purpose of this study was to explore the exercise experiences of nursing home residents who participated in a 6-month exercise intervention. Their experiences are an invaluable source for understanding how exercise programs can be more effectively designed and delivered to help nursing home residents enjoy a better quality of life during their later years.

## Methods

Research on exercise and aging has been mainly located in the quantitative paradigm (Grant & O'Brien Cousins, 2001). The need to focus more on the quality than the quantity of life, more on the influence of natural exercise settings than on laboratory experiments, and the inclusion of personal views, meanings, and expectations above summary trends has led to an increasing interest in qualitative approaches. These offer the opportunity to explore the aging process as a whole system of biological, psychological, social descriptors influenced by attitudes, expectations, cultural values, and supportive environments. Lack of research in specific settings such as nursing homes increases the value of qualitative inquiry in helping to identify the dynamics of such settings. Narrative data can vividly illuminate the experiences, beliefs, and expectations of institutionalized older people whose "voices" enable a better understanding and explanation of their choices and actions toward a more active lifestyle. Furthermore, the growing demand for a person-centered approach within the U.K. National Health Service (NHS) and NHS research reinforces the need for qualitative perspectives (Department of Health, 2004).

Given the scarcity of qualitative data on institutionalized older people and exercise research, an interpretive phenomenological approach was adopted to illuminate

the exercise experiences of nursing home residents. The study design consisted of 21 one-on-one interviews with residents of a London-based nursing home selected for participation in a 6-month falls-prevention exercise intervention.

## Participants

A purposive sample of 14 residents (12 women, 2 men) with ages ranging from 86 to 99 years participated in the semistructured interviews. The selected participants had a history of falling and had completed a chair-based exercise program, which helped them improve their fitness levels and prepared them for their involvement in the falls-prevention intervention (Skelton & Dinan, 1999).

## Setting

This qualitative study was funded through a larger Department of Health grant awarded to a former health authority in South East England, UK. The project sought to examine how easily a successful community-based falls-prevention exercise initiative could be extended in local residential and nursing homes. Homes were selected according to their potential interest in collaborative working in this area following recommendation by local social-care and volunteer agencies.

The qualitative study took place in a single nursing home with an established falls-assessment and -intervention procedure. A staff member (the activity organizer) had already received training in leading basic chair-based exercise and had run a class for several months in the nursing home.

## The Exercise Intervention

The exercise routine followed an evidence-based format applied in community settings (Skelton & Dinan, 1999) adapted to meet the increased frailty of these residents. Participants attended a 1-hr group session once per week for 6 months, delivered by a postural-stability instructor (Skelton, 2004). The class included a 10-min warm-up, mobility, and stretching, followed by 10 min of seated moderate-intensity endurance exercise, 15 min of progressive resistance work for the upper and lower limbs and core stability (using Therabands), 15 min of supported balance work with participants who were able (seated adaptations for those who were not), and a 10-min cooldown including adapted Tai Chi moves. Most of the participants were able to practice the sit-to-stand exercises to a varying degree by the end of the intervention, as well as carry out balance exercises. Two or three members of staff from the nursing home were regularly available to assist the class instructor.

## Procedures

The design involved 14 interviews conducted before the falls-prevention program began and 7 interviews at the end of the program to generate a view of the expectations, thoughts, and actual experiences of the participants.

The nursing home management team gave permission for the study after they were provided with a presentation of the scope and the interview guide of the study. The data-collection plan was designed to be as nonintrusive as possible to

the routines of the nursing home. The first author visited the nursing home before the data collection to familiarize herself with the nursing home environment, the day-to-day operation, the staff, and the residents. With the cooperation of the nursing home staff, an interview schedule was agreed on, and after verbal informed consent was obtained and anonymity and confidentiality were assured, the preintervention interviews were conducted 2 weeks before the start of the program. Before the postintervention interviews, the first author visited the nursing home, participated in the last exercise class of the intervention program, and had informal conversations with participants and staff involved in the intervention to give them insight into the whole intervention process and a better understanding of what happened during the intervention period.

Interview guides included general open-ended questions and specific probes that allowed participants to elaborate on ideas as they arose. The preintervention interview started by asking participants to discuss their reasons for participating in the program and their beliefs regarding exercise. The implications of falls were then discussed, and participants were asked to talk about their specific expectations of the program. The experience of living in a nursing home and the elements of participants' quality of life were explored throughout the interview. The postintervention interview started by asking participants to report their experiences, both positive and negative, of participating in the program and to report any immediate concerns regarding the exercise program. Several questions explored the effect of the exercise program on personal quality of life. The interview concluded with the participants' recommendations for future exercise programs. Probing questions were used to allow participants to elaborate on their ideas throughout the interview process (Patton, 1990). Each interview lasted approximately 30–40 min.

The interviews took place in the residents' own rooms after a brief presentation of the scope and aims of the study before and at the end of the intervention. In the preintervention phase, carers or nurses introduced the interviewer to the frailer and older residents to help establish rapport. With respondents' expressed permission, and further reassurances of confidentiality, interviews were audio-taped and transcribed in full and imported into NVivo qualitative software (QSR International, 2002).

Analysis employed the principles of interpretive phenomenological analysis (Smith & Osborn, 2003). Based on both the tape recordings and the verbatim transcripts, thematic coding frames were developed. The connections between emergent themes were then examined, and superordinate themes were identified. These superordinate themes were checked for consistency and interpretation and were presented in a detailed narrative account.

## Findings

Fourteen residents (12 female) participated in the preintervention interviews, and 7 (6 female) also contributed to postintervention interviews. Between the interviews, 3 residents died, 1 did not participate in the intervention, and 1 was hospitalized. Two residents were severely depressed, and it was agreed that interviews should not be held with them because this would add to their distress.

Findings are presented to provide a comprehensive account of participants' exercise experiences. The coding identified four higher order themes.

## Exercise Expectations

Having been transferred to the nursing home because of ill health, individuals described how they lowered their life expectations to avoid frustration from setting unrealistic goals.

That should be one's aim; to lead a reasonably happy existence. It is no great fun in being unhappy all the time and reveling in your unhappiness and saying "Oh goodness me, you know, life is a bore," one can say that. I say that getting old is a bloody awful thing, but, ah! There you are! You've got to make the most of it. That's the thing, these last 15 months I haven't been well, and after me having a very healthful life for so long, it comes very hard, suddenly having these problems with my health. (Colin, 88 years)

All these things come with old age don't they; can't expect anything else, I suppose. Thank God, I've been able to do what I can up to now. (Karen, 96 years)

Being independent and able to do one's own everyday routines are requirements for adequate quality of life. Some participants noted that when staff "took care of things" that reduced their freedom for independent choice. Other respondents, however, stressed that they were routinely allowed to take care of their everyday tasks. They also highlighted how their functionality had improved since living in the nursing home.

I don't really do much, that's the trouble you see, we have to sit around so much really. I'm not allowed out on my own, and I thought a lovely day like this I'd go for a walk, but I can't. (Carol, 98 years)

Well yes, I do because I can bathe myself, make a bed, look after myself in that respect, but you'd never believe when I came here, I couldn't walk. But being left on my own, in my own room, I was determined to walk round the room and then the corridor, and things like that. (Mary, 95 years)

The awareness of their advanced age led some residents to conservative expectations, a possible mechanism of coping with aging. The older residents specifically noted that they do not expect tremendous improvement at their age but they expected that the program would prevent further deterioration.

I am not going to lie; I am hoping that it is keeping me better than if I didn't do it, that's all I can say. I'm blind, and I am too old to really think that it is going to do something extraordinary for me, but I love going, I think it is good for me to try and move as much as I can. (Carol, 98 years)

I am getting older and I am getting more aches and pains. That we must expect because of age. (Linda, 89 years)

I would like to get in my own home but I know I cannot, so it is not good wishing. (Donna, 91 years)

I am not going to say it will cure, but it will help. (Sam, 87 years)

Residents identified independence and improved functional ability as the two main reasons for participating in the exercise intervention. Some participants set specific and measurable goals to achieve by the end of the intervention.

I want to be able to go to my son's home for Christmas. He's got a lovely home, it is just I can't walk up the stairs, and I have to be lifted up and I can't stand it. So I am not going to do it any more. I'm going to walk or I am not going at all. (Mary, 95 years)

My balance is not marvelous, that's what I want to improve so that instead of walking with two sticks in the house, I can walk with one stick, and get to the stage where I can walk without a stick for short distances. (Colin, 88 years)

Participants stressed the need for being together with others. Prolonging life was not the main issue for them. Instead, regular enjoyment and social interaction with other participants appear to be key ingredients for a better quality of life for them.

Quite frankly, I expect to be there with friends, I don't know if it will do me any good when I'm 98, I don't want to prolong my life. (Carol, 98 years)

Participants expected that the program would stimulate them both physically and mentally and help them not spend most of the time in their room—the "prison cell," as described by some residents.

It is very enjoyable thing to do, because we sit in our rooms all the time. It is jolly good to go to these things and do them so my days are not quite so long. Sitting in your room, go to lunch, after lunch, back to your room, well I call it, in the end, after 7 years, it's my prison cell, that's the way you begin to look at it, so going to these little activities makes a great change. (Linda, 89 years)

I think it is very important for the brain because it puts you all in one piece. (Sue, 97 years)

### The Experience of Falling

The implications of a fall were diverse and negative, reflecting on residents' functional ability and mobility and, more important, on their confidence and belief in their abilities. Participants regarded falls as a landmark of lost youth, that probably cannot be restored, and a lost future. Individuals discriminated between life in the hospital, where inactivity was forced, and life in a nursing home, where there were more opportunities for personal independence.

I had a fall and broke my leg; that is when it first started. That is a long time ago though. That's when I first felt I was getting older. (Donna, 91 years)

Every time you sat in a chair in hospital it was "sit down, you'll fall," but when I came here and got into my own room, I soon tried walking a little bit up the corridor and back, going down the stairs, because I didn't want to sit in my room and be "sit down, you'll fall" all the time. (Linda, 89 years)

Having a fall shifted responsibility for self-care away from the individual to personal carers or nurses. Lack of confidence and fear of falling limited participants' everyday life choices to times when they had the surveillance and assurance provided by someone physically healthy standing close by.

I am, perhaps, sometimes apprehensive and, therefore, when I am moving around, I like somebody around near me, just in case, keep an eye on me, which is important also, providing there is somebody here, or there or wherever. This is a form of insurance. (Colin, 88 years)

Well I like it here because I lost my husband, I'm all alone, and my people live an hour each ride in a car away. Can't expect to call on them, and things don't happen in the day, they happen at night when you cannot get a doctor outside to come and visit you. (Linda, 89 years)

Apart from the physical health implications of not being able to walk, maintain posture while holding others, or move around as before, falling has important psychosocial consequences on mental and social aspects of life quality. Residents referred to the resulting doing-nothing lifestyle and the missed opportunities for social interaction with family, grandchildren, and friends.

If you fall and can't walk you ruin your opportunities, you narrow them, even if you get further opportunities to meet people and talk with them. You can't hold small babies; you can't play with children or run with children. (Hillary, 86 years)

### Facing the Challenges of Exercise

The fear of a new fall was the major concern for participants. Some reported negative experiences in previous settings where some exercise instructors were "unprofessional," did not identify participants' needs and abilities, and exposed them to unnecessary risks. The fear that exercise might be harmful led a number of participants to ask a trusted doctor or significant other to make the final decision.

They throw beanbags, we used to have them at school, I threw one at [the instructor], she grabbed it and put it behind, then she grabbed another and put it behind her back, then she took them both and threw them at me. I was terrified. If she had hit this eye I would have been finished, she would have really finished me off. (Kathy, 86 years)

You've got to be very, very careful with that person's body, because sometimes they are pushing themselves too hard, to please the teacher, and it's the worse thing they could do. (Marion, 87 years)

Well it absolutely depends on what the doctor says about the pain in my back. I mean if it's alright, I shall be delighted to join, but otherwise I won't be able to. (Kathy, 86 years)

In contrast, all participants stressed their complete trust and respect for the exercise instructor who delivered the falls exercise program. They reported that the instructor's knowledge and experience would be difficult to replace. In this context, many expressed concern about the future of the program.

Well I think [the exercise instructor] will be hard to follow, because I think she's exceptionally good and I don't think it will be easy for anyone else to take her place. (Hillary, 86 years)

Most residents reported enjoying the different components of the program. Of particular interest were the strength exercises based on Therabands, which were demanding for some participants. Even so, participants reported that the exertion of the classes converted into benefits afterward. "It's a bit tiring but you do feel stronger, you feel benefit afterwards" (Linda, 89 years), "but it makes me breathless, you know what I mean, but I still do it" (Susan, 87 years).

Performing exercises while standing was also challenging for participants who had increased fear of falling. Abandoning the security of the chair was a challenging task, especially for people with low confidence and a history of falls.

### Experiencing the Benefits of Exercise

Initially most participants expressed the belief that neither exercise in general nor this specific program could offer them dramatic changes at their age. Nonetheless, by the end of the program they were enthusiastic and reported improvements in their quality of life through better mobility, decreased fear of falling, and feelings of achievement and success. They valued the program as an opportunity to do something for themselves, to add something to their weekly routine, to meet other people, to be more active, and to feel good about their achievement.

Well yes, it was the program. I was told that I couldn't live on my own with no balance, so I had to come here; I'm not sorry, I've done it. Well, I feel very good and I look forward to the next one. (Linda, 89 years)

The notion of personal development and the need for *purposes for me in this body* were evident in the accounts of the residents. They spoke of independence through better walking, strength, and balance and avoidance of sitting down all day and getting more pains and aches as ways toward a better quality of life.

The strong notion of *I can* (which surprised many respondents who realized that they could recover some of their impaired function) was linked to the notion *I prove you wrong* (a response to the forced inactivity that some respondents had faced).

Sometimes I've surprised myself. I have gone to get something "oh I touched it!" Those sorts of things give you confidence. (Mary, 95 years)

Successful experiences in the exercise class were an important confidence booster. The *confidence in my body* appears to be a result of the *confidence in my instructor*, who helped residents feel less threatened in performing new (or maybe forgotten) and carefully chosen low-intensity activities after years of inactivity.

Well, I walk without being helped or anything like that, some days I'm better than others but then, I'm very old, you can't expect to be made new when you're old. I mean everything else is wearing out on us, they can't give you new things, so that's the way to look at it isn't it, but the few bits they do ask you to do, does I think you good. (Linda, 89 years)

The improved functional ability and the increased sense of body control led residents to recover some of their joy and happiness and to move from a doing-nothing to a doing-something life as a result of participating in exercise. By doing

this little extra, participants felt good about themselves and valued the beneficial effects of the exercise without expecting great changes. They also restored their relationship with their bodies (still able to do things), redefined their self-identity, and identified ways of attaching meaning and purpose to their everyday activities.

Participating in the exercise program was also a way of showing appreciation for the efforts of the nursing home staff. Residents wanted to acknowledge their support for staff who contributed extra time and effort to improve the residents' health and well-being.

I go because I think if someone volunteers to take you, we should support them. I think it is very kind of them to give their time up. (Linda, 89 years)

## Discussion

A passive lifestyle characterized by dependence, growing purposelessness, social isolation, and a general spirit of declining capacities was clearly interrupted by this intervention, which demonstrated that exercise can directly improve quality of life of nursing home residents.

In contrast to the structured environment of daily life in a traditional nursing home that offers few opportunities for individual initiative and actions, this exercise program offered residents the opportunity to self-reflect and self-regulate. Most important, participants realized that they were still capable of actively shaping their environment, allowing them to reconnect with their human potential. This is consistent with Diener, Suh, Lucas, and Smith (1999), who noted that a commitment to a set of physical activity goals can provide a sense of personal agency, structure, and meaning to daily life.

Improved physical well-being was an immediate positive outcome for participants' quality of life. Initially, participants, aware of the consequences of getting older, did not express high expectations regarding the potential improvements from participating in the exercise program. The inevitable nature of health deterioration made residents adopt more accommodative strategies. That is in agreement with the metatheoretical framework of selective optimization and compensation (Baltes & Baltes, 1990), which proposes that as people age they restructure their lives toward fewer goals that are important and achievable.

At the end of the program, participants could clearly register the impact of the program through better function and mobility, fewer aches and pains, and a better awareness of their bodies and what they were capable of doing. Rediscovering this ability was surprising for many participants who were imprisoned by memories of the *past me* (able-bodied, living independently) and the reality of the *present me* (disabled, declining-bodied, living dependently). The notion of the *future me* (more able-bodied), described as further improvement of physical potential or as maintenance of current ability, was a new, different, and uplifting way of thinking for the residents.

Setting and achieving goals is not usually expected from nursing home residents, and it supports the notion of a developmental dimension of older adults' well-being (Stathi et al., 2002). The need for success and achievement and the ability to prioritize aims and efforts toward fulfilling a goal appear to be evident

even among institutionalized older people. This has a series of implications regarding the design, purpose, and delivery of exercise programs in nursing homes. The design and planning of exercise programs should accommodate the need for success and achievement and offer opportunities for goal setting and free decision-making processes, which are linked with increased chances of adopting and maintaining a more physically active lifestyle (O'Brien Cousins, 2003).

Having a personal history of falls resulting in accidents or fractures made some respondents avoid taking the responsibility of deciding whether or not to participate in this intervention. This should be examined in the broader context of living in a nursing home and how free will, independence, and self-efficacy are promoted and developed through everyday activities.

A better feeling about physical self reflects on participants' improved self-confidence, self-esteem, and mental well-being (Fox, 2000). Their feelings of freedom were compromised by an ongoing focus on their worn-out bodies and the unending boredom of life in a single room. The successful experience of exercising helped residents be more optimistic, and it made them look forward to the next day, which was an incredible change for many of them.

There was a shift from you-for-me to me-for-me approach as residents felt more able to perform their everyday activities, less frightened about the prospect of another fall, and more willing to explore their full potential. This liberation links with a shift from their monadic involvement (solely concerned with self) to the need for otherness (Franks, 1997). Being together with other people gave residents a new, more optimistic perspective. That is manifested in their comments at the end of the program regarding the need for social interaction, the increased opportunities to meet and talk with other residents, the need to reward the nursing home staff for their efforts, the interest in aspects of their social well-being, and the increased need to "escape" the monotony and restriction of living in one room. Therefore, group exercise programs might be a more appropriate way to improve the social well-being of people living in nursing homes than individual programs. Of particular interest for future studies is the examination of the contribution of nonexercise group-based activities to the quality of life of nursing home residents.

All residents praised the contribution of the exercise instructor and expressed their complete satisfaction with delivery of the program. The professional help and psychological support of the exercise specialist appear to be a critical factor for the success of an exercise program in a nursing home environment. Residents were constantly worried about their health and the need to feel safe and overcome the fear of doing anything that could diminish their ability to do the things they like. Trust in the exercise instructor helped build confidence in the program.

From the participants' accounts it is not clear what comes first: need for safe exercising or confidence in the instructor. Instructors who demonstrate their exercise knowledge, specific for frail people, might help participants feel safe and be willing to perform activities that they thought were beyond them. Poor falls confidence can lead to declines in physical performance and perceived physical function (Cumming, Salkeld, Thomas, & Szonyi, 2000). Trust in the exercise instructor could possibly restore confidence in the following sequence: Participants who have low confidence (a) *perceive* that the environment is safe to try tasks that they did not believe that they would be able to do; (b) *trust* the instructor, who knows their capabilities, and this increases their falls confidence; (c) *decide* to try within this environment; (d) *experience* success, which further increases their falls confidence; (e) and *transfer*

and *apply* the enhanced confidence to everyday activities. Given this sequence, it is easy to understand the importance of a thorough knowledge background for exercise specialists who work with institutionalized older people.

Motivating older people to continue participating in exercise programs relies also on balancing the effectiveness and enjoyment aspects of the exercise program. Participants stressed that the program was not a soft exercise but a real challenge to their systems. Quantitative evidence stresses the importance of specific, tailored, and progressive exercise programs that include bone loading, gait, dynamic posture, adapted Tai Chi, and functional floor activities (Skelton & Dinan, 1999). Balancing effectiveness with enjoyment is a difficult task for any exercise specialist and very important for the nursing home residents, who need interesting and rewarding experiences and not strict and strenuous exercise regimens. Providing sufficient intensity to produce physical changes without compromising the fun and social aspects appears to be the most beneficial way for institutionalized older adults who might need to improve the developmental, social, and mental aspects of their quality of life more than the actual physical benefits (Stathi, McKenna, & Fox, 2004). The findings clearly pointed out that focusing on implementing exercise programs as a way of improving the remaining years of frail people's lives could be a productive approach in terms of exercise adoption and maintenance.

From a programming perspective, it is important to note that selecting residents for an exercise class in a nursing home is time-consuming, principally because of the time it takes to convey residents to and from their rooms. The project showed, however, that with the necessary commitment of dedicated staff, the potential for exercise in care-home settings first noted by Fiatarone et al. (1990) can be realized in practice. The participants in this study valued the efforts of staff, especially when they appeared to be above and beyond the call of duty. It seems that proactive nursing is a crucial factor for the success of such efforts.

Issues of transferability of these findings warrant specific caution. First, the selected nursing home had receptive management and staff who valued exercise as a potentially positive intervention for residents. The exercise class was fitted into the working routines of the home with minimal resistance from nurses and care workers. Awareness of the value of exercise for improving residents' quality of life is likely to be highly variable among other nursing homes.

Second, conducting research with institutionalized older people is a challenging task and carries with it methodological limitations (Kane, 2003). Communication with some participants was difficult because of poor hearing, poor vision, and cognitive problems such as loss of memory, inability to concentrate, and depression, which might have influenced the quality of the selected data. Some respondents could not always articulate their thoughts and perceptions, which might have compromised the findings.

Third, attrition rate was a significant issue in this study. Almost half the initial participants did not complete the intervention and were unable to participate in the postintervention interviews as a result of deaths (3), hospitalizations (1), or the development of severe mental health problems (2). Gaining feedback at 2- or 3-month intervals could help overcome the issue of high attrition rate.

Despite these limitations, research with institutionalized older people is invaluable because it enables us to understand their needs and preferences and helps address stereotypes regarding life in its later stages. For a young researcher, conducting interviews with older people living in a nursing home setting was a

powerful personal experience. The personal benefits went beyond the selection of “good data” to challenging personal views of aging, questioning what constitutes quality of life in later life, and identifying the need to translate research evidence into practice.

Baltes and Smith (2003) stressed that the Fourth Age is not a simple continuation of the Third Age. The Fourth Age is characterized by a high prevalence of physical and mental dysfunction and challenges for maintaining human dignity. Human aging might, however, have reserves and potential that have not been explored yet.

## Conclusions and Recommendations

This study provided a positive portrait of the human capability for improvement, adaptation, and optimization during the later years of life, which seems to remain intact even for institutionalized people. The positive exercise experiences in a nursing home were linked with better function and mobility, more independence, and more social interaction and fun, stressing the unique opportunities for exercise provision in nursing homes.

The roles of the management team, the carers, the nurses, and the activity organizers who are involved with the delivery of an exercise program in a nursing home need to be explored in order to identify ways of facilitating the provision of exercise in these settings with minimal disruption to daily duties and to ensure maximal cooperation.

The perceptions of institutionalized people who are new to exercise and of people who return to exercise after a relapse caused by physical or mental illness could provide information on motivators and constraints for exercise participation. The perceived benefits of nursing home residents’ participation in organized non-physical activities, in addition to exercise or when exercise is not an option, could provide important information on how to help institutionalized people improve their sense of well-being.

There are clear practical challenges involved with promoting exercise with nursing home residents, yet holistic health benefits can be delivered for a relatively modest investment. Future widespread investment might depend on the extent to which exercise is shown to compress the physical and mental deterioration experienced by institutionalized older people and whether there is a measurable impact on hospital admissions. If this link is made, health and social services will find it easier to prioritize resources to meet the exercise needs of institutionalized older people.

## Acknowledgments

The authors would like to acknowledge the contributions of Department of Health for funding this study, the principal investigators Dr. Dawn Skelton and Ms. Susie Dinan for their support, and Prof. James McKenna for his comments on drafts of this manuscript.

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