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## *Do older adults want playgrounds?*

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# Do Older Adults Want Playgrounds?

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## Abstract

Current research indicates that the use of playgrounds by older adults would provide many health benefits. The paper explores the attitudes and barriers faced by older UK adults towards the concept of using playgrounds for exercise. Interviews and discussion groups were held involving in total 125 older adults between the ages of 58 and 100. The views of equipment manufacturers and those with a professional interest in playground provision were also sought using interviews and postal questionnaires. Whilst the older adults sampled were currently making very little use of playground equipment, there was notable interest in the concept of playground use. Considerable social barriers to playground use were however highlighted. Placing playgrounds in a controlled supervised environment and partaking in playground use with grandchildren were seen as the most popular ways of overcoming such barriers. Even when functionally inclusive equipment is available it is important that all social barriers are overcome, if older adults are to use playgrounds.

## Introduction

As the older population continues to grow the importance of promoting health in old age becomes increasingly significant. The health benefits for older adults derived from physical exercise are well known. Benefits (cited by Thurston and Green, 2004) include increased life expectancy, reduced risk of coronary heart disease, strokes, diabetes, hypertension and hip fractures (Lawlor and Hanratty, 2001), the control of obesity (National Audit Office, 2001), positive mental health outcomes (Biddle et al., 2000), improved mobility, coordination and balance in older people (Young, 2001), and reduced risk from colon and possibly other cancers (McTiernan et al. 1998).

Playgrounds form versatile and fun physical training environments for children as well as providing valuable opportunities for social interaction and learning. Recent evidence from the University of Lapland (Pahtaja et al. 2006) suggests that playground use can also benefit older adults by improving functional fitness in areas such as balance and co-ordination whilst at the same time providing opportunities for social interaction. The success of this research has led one of the project partners, the playground manufacturers Lappset ([www.lappset.com](http://www.lappset.com)), to actively promote the idea of three

generational play by marketing playground equipment constructed to suit the needs of children, their parents and grandparents (Sillito, 2006).

However outside of the pioneering Finnish study, little is known about older adults' attitudes to the concept of playground use and the types of barriers they may face. The potential health benefits that could result from older adults using playground equipment cannot be realized unless playground provision is appropriate to older people. However play providers are unlikely to consider the needs of older adults without evidence that it would prove worthwhile. This paper presents the results of a study that investigated whether older people would value the opportunity to use playgrounds, what barriers may prevent them from using them, and what can be done to make playgrounds more attractive to older users.

## Background

Participation and maintenance of regular physical activity is one of the most important ways of preventing or reducing many chronic diseases (U.S. Department of Health and Human Services, 1996). These positive effects are not limited to those who improve their physical activity in youth or middle age, or indeed whilst still in good health. Young (2001) saw improved mobility, balance and co-ordination in older people who complied with an exercise prescription. Merz & Forrester (1997) found that even amongst people with established heart disease, regular moderate physical activity reduced the risk of cardiac death by 20 to 25 percent. Mazzeo & Tanaka (2001) suggest that exercise programs, even for those who have not been active for much of their lives, help older people to accumulate less fat and improve their blood-sugar regulation and blood pressure. Yet the prevalence of inactivity is highest amongst those aged 65 and older (US Department of Health and Human Services 1996).

It is widely accepted that play is a vital part of the development of children, supporting their physical, cognitive, social and emotional development (Frost 1997). Playgrounds encourage the development of a range of motor behaviours (Beckwith 1985), and provide opportunities for physical activities such as climbing, sliding, balancing and swinging, which contribute to strength, flexibility and co-ordination (Frost 2006).

Pahtaja et al. (2006) investigated how the balance and coordination skills of older people were altered by taking part in a structured exercise program over a period of six months. Forty 65–81-year-olds took part in the research which included use of a specially constructed adventure playground circuit ("The Motor Track"). The participants undertook a 90 minutes guided exercise programme once a week that included use of the playground environment and were also encouraged to carry out a series of exercises at home. Although no significant changes in the weight or body composition of the participants were recorded, there were significant improvements in balance and coordination. Improved confidence relating to mobility was also recorded resulting in significant improvements in performance speed measured as the time taken to complete a playground circuit. Psychological as well as physiological improvements were also

recorded. Most of the participants said that they felt better mentally because of the exercise and empowered when they managed to overcome a problem piece of equipment (Sillito, 2006). The post study interviews also showed that the participants had found it fun and motivating to take on the playground based challenges with other people.

The participants in the Finnish study were self selected in response to a newspaper advert and perhaps therefore already motivated to become more active. Playground use was also part of a wider exercise program that also included ball games, musical chairs, leading each other blindfolded, and balance exercises utilising equipment such as walking blocks and trampolines. However, anecdotal evidence from the study provided by Lappsett and BBC News (Sillito, 2006) highlights the very positive response to the experience of playground use reported by the study participants. This result is more surprising than the increases in physical well being resulting from regular structured exercise which are well supported by other research. If the Finnish study has uncovered a latent desire for equipment based play amongst older adults then playgrounds could in the future be used to promote an active lifestyle amongst this age group.

## **Methodology**

The methodology adopted reflected the view that Inclusive Design should not only be about designing functionally inclusive products but also about ensuring that the resulting products are attractive and socially acceptable to all. The study therefore aimed to uncover the attitudes of older people and other stakeholders towards the concept of playground based exercise as well as the contextual barriers (physical, social and psychological) that currently prevent playground use. Rather than recruiting individuals to a structured exercise programme, who by their willingness to take part already showed some predisposition to being more active, the study sought to elicit views from a wider cross section of older adults using a range of qualitative methods. The views of playground manufacturers and providers of playground facilities were also collected to ascertain whether these stakeholders were already considering the functional and social needs of older adults. The following data collection activities therefore took place:

Stakeholders with a professional interest in the provision of public playground equipment were contacted in person, by telephone and by email in order to gain their perspectives on the issue of older people using playgrounds. Contacts were made via the UK based Royal Society for the Prevention of Accidents (RoSPA) and by attendance at the International Play Safety Conference 2006. 4 representatives of play equipment manufacturers and 5 other stakeholders with a professional interest in the design and provision of playground equipment were interviewed. In addition interviews were conducted with 3 UK Council representatives with responsibility for playground provision.

A questionnaire was developed and sent to global members of the International Play Association (IPA). The questionnaire had a dual purpose – to solicit local information not

revealed in literature searches, and to gauge the opinions of people with an interest in play regarding the use of playgrounds by older people.

11 informal unstructured interviews with older people based in the county of Leicestershire, UK were conducted in order to explore the types of issues that were likely to arise for older people concerning the idea of using playgrounds. These issues were used to inform the development of an agenda for a series of discussion groups. The sample was collated from older adults using or passing through a local park. The age range was 58-85 years of age (average age 67.6).

6 discussion groups were conducted within Leicestershire, with a total of 96 people taking part. The choice of these groups was opportunistic based upon a list of organisations that provide social activities for older people. This information was found from Leicestershire County Council's online Community Information Network. 26 groups were contacted of which 6 agreed to take part in the study. Table One summarises the make up of the 6 groups. The participants were told that the discussion group was being held in order to gather their opinions and experiences regarding playground use. They were shown pictures from the Finnish study showing older people using indoor playground equipment including balance boards, slides, crawling tubes and rope ladders.

**Table 1: make up of discussion groups**

Group	No. of participants	Age range
Church social group	29 (4 men & 25 women)	61-86
"Frail elderly" day centre group	11 (4 men & 7 women)	70-100
Keep fit class for the over 60's	15 (1 man & 14 women)	64-80
2 <sup>nd</sup> church social group	22 (2 men & 20 women)	73-94
2 <sup>nd</sup> Keep fit class for the over 60's	10 (4 men & 6 women)	58-78
Art Class	8 (3 men & 5 women)	60-77

Semi-structured interviews were also conducted with 18 older adults to allow individual views to be gathered to complement the discussion group data. The sample consisted of 7 men and 11 women, 8 aged between 60-69 years old, 4 in the 70-79 years old bracket, and 6 between 80-89 years old.

## Results

### Interviews with stakeholders

These initial scoping interviews served as a means to establish whether there was already an interest in providing play equipment and facilities suitable for use by older adults. Of the 4 representatives of playground equipment manufacturers, only one was aware of initiatives within their company to provide equipment designed for older adults. This manufacturer supplied a line of exercise equipment to be used alongside walking trails rather than in a playground environment. Another supplied equipment that was designed so that adults as well as children could use it but had not specifically

considered the needs of older users. One representative stated that they recommended that height restrictions are implemented by playground managers in order to discourage teenagers from using the equipment to the detriment of younger children's safety.

Of the 3 representatives of local councils interviewed, 2 were positive towards the idea of providing equipment suitable for older people but were concerned about insurance and liability in the event of accidents. The other representative was concerned about encouraging "inappropriate contact" between children and adults. All 3 felt that limited budgets would make it unlikely that special equipment for adults could be provided alongside children's play equipment and the needs of children would always be prioritised above those of adults within public play spaces.

Although these interviews were ad hoc and opportunistic they confirmed the authors' views that little thought had been given to the possible societal and health benefits of providing play opportunities for older adults by either playground manufacturers or providers of play spaces. The negative concerns about the safety of children whilst sharing equipment with adults confirmed that provision of truly inclusive playgrounds would require more than robust equipment but also careful consideration of how the needs of both children and adults could both be accommodated within a public space.

## **IPA questionnaire results**

The IPA is an international non-governmental organization founded in Denmark in 1961. It is interdisciplinary and embraces in membership persons of all professions working for or with children. The IPA promotes the importance of play in child development, and seeks to provide a child perspective on policy development. Therefore as well as having a special interest in promoting play, the IPA respondents could be expected to consider adult use of play equipment with the needs of child users in mind. The postal questionnaire was sent to each of the 48 members of the board and council of the IPA. 9 (19%) responded, a figure perhaps adversely affected by data being collected over the summer months. 6 of the respondents thought that older adults participating with children on playground equipment was a good idea. None were totally negative to the idea as the remainder responded that they were unsure. The perceived benefits of playground use included the opportunity to improve relationships between the old and young; the opportunity to allow those who are at playgrounds as passive care givers to become more actively involved with children as playmates; that older people would gain exercise whilst caring for the young; and that play is a stimulant for staying young at any age. However when asked whether older adults should be able to use playground equipment without children, the respondents were more cautious. 5 still thought it was a good idea but 3 now responded negatively. Concerns again related to the danger of children being exposed to paedophiles or other adults out to harm children. Further concerns were expressed about the likelihood of more accidents to children occurring if adult use of equipment dimensioned for children increased. It was pointed out that children's play equipment was often designed to stimulate the imagination rather than primarily to provide exercise. Therefore if older adults were seeking exercise opportunities, trim trails may provide a better alternative. The IPA respondents, whilst more open to the concept of older adults using playground equipment, again stressed

the importance of putting the safety and play needs of children before those of older adults.

## **Exploratory interviews with older adults**

The 11 exploratory interviews revealed an interest in the concept of older people using playground equipment with only 3 respondents being unwilling to consider using playground equipment in any circumstance – 2 because they didn't like children and one because she had a knee problem which she considered too prohibitive. Only one (age 58) had made any recent attempt to use equipment when out with his grandchildren. The following issues were identified for further exploration within the discussion groups:

### **Potential barriers to playground use**

- Fear of youths and vandalism – this currently deters use of any public facilities.
- Location – where the playground was located would affect their willingness to use equipment.
- Equipment – preferences for different types of equipment were expressed with suitably designed slides and swings being most popular.
- Physical safety – fear of falling was a widespread concern.
- Environment – attractive planting and well maintained facilities were listed as factors that would encourage use.
- Perceptions about the role of playgrounds. All the interviewees stated that they thought playgrounds were meant for children and therefore adult use would be frowned upon.

### **Perceived opportunities afforded by playground use**

- The opportunity to socialise with others through organised activities centred on playground use.

## **Discussion groups**

There were marked differences between the groups taking part in the discussion. The 2 church social groups (groups 1 and 4) showed little interest in the concept. Group 1 which was based in a city centre was particularly concerned about intimidation from "youths". Where an interest in the concept was shown by individuals within these groups, this was limited to using playgrounds with grandchildren or as part of an organised group activity. The "frail elderly" day centre group (group 2) felt that they faced too many personal physical barriers to even consider independent use. This group struggled to consider the concept of playground use because the word playground was for them so firmly associated with children. The fitness classes (groups 3 and 5) not surprisingly were more open to the idea of using playground equipment. Concerns were expressed by the city centre based group 3 about personal safety as gangs of youth were often seen hanging around local playgrounds. For this reason lone use was considered unviable but there was strong interest in using playground equipment as part of supervised group activities. Both fitness groups preferred the concept of circuit type use of equipment as part of a structured exercise session rather than for unstructured play. Members of the art class (group 6) were open to the concept of playground use; however, in this group the potential embarrassment of being seen using equipment was a dominant theme.



### **Potential barriers to playground use**

For those participants that felt they were physically able to use playgrounds, the key deterrent was again the presence of youths. This was a recurring theme in 4 of the 6 groups. Vandalism and the dirtiness of parks already deterred use of public amenities and therefore for many study participants it was considered essential that facilities were tidy and well managed before they would even consider use. Men were nervous about being branded as paedophiles if they were seen attending a playground without accompanying children.

The risk of potential injury from playground use was a concern for all groups. For those in the fitness groups this risk was viewed as a reason to be cautious not as a prohibitive factor. For others however, particularly those living alone, the consequences of being injured, possibly the long term loss of independence was a risk they were unwilling to take. Within all except the 2 fitness groups, limited physical ability was voiced as a reason prohibiting use of playground equipment even if the environment itself was safe and welcoming. In these groups the view that even small amounts of exercise could improve an individual's balance and coordination was widely viewed with distrust.

Less widely voiced concerns, but still issues that were prevalent within 2 or more groups, was the embarrassment that would be caused from using playground equipment and the lack of time for playground based activities given existing activities and commitments.

### **Factors that would encourage playground use**

Placing playgrounds in a controlled supervised environment was the single most popular change that could encourage use amongst those with any interest in playground use. Placing playgrounds indoors was also popular as this would shield users from the weather, prevent surfaces from becoming slippery and make use less embarrassing. There were however individuals that thought being out in the fresh air would be preferable.

The consensus in 5 out of 6 groups was that they would like to be able to use playground equipment when accompanying children in their care. 2 groups (the church social groups) concluded that they would only ever consider using playground equipment in this intergenerational context. There was almost unanimous support for the concept of supervised playgrounds.

Amongst those who would be willing to use playgrounds without accompanying children (mainly people within the 2 fitness class groups) there was a strong preference for organised visits and activities. This would provide social contact and motivation from 'like minded' others, reduce fear of youths, reduce embarrassment and allow males to use equipment without suspicion. The need for a motivational leader to encourage people to have a go was stressed within both groups.

## **Semi structured interviews**

Because the concept of older adults using playgrounds had surprised many of the discussion group participants, the participants who took part in the interviews were forewarned about the topic. This may be why these study participants were generally more open to the concept. 83% of those taking part in this stage of data collection also reported that they took regular exercise either as part of their everyday lives or through organised group activity. 67% of the 18 participants were positive to the concept of older users using playground equipment with only 11% thinking it was a bad idea. 78% thought that playgrounds designed to be suitable for both adult and child users were a good idea. 72% of those interviewed said they would consider using playground equipment. 56% thought they would make use of playgrounds designed specifically for adults. When asked how they prefer to use a playground 44% said they would prefer to use it with children, 33% as part of a group, 11% with a friend and just 6% alone.

In terms of equipment people would be willing to use (if appropriately designed), slides were most popular, with 44% of those interviewed saying they would use them; 33% said that they would use swings and 28% climbing frames. When asked what currently discouraged them from using playground equipment 50% were worried about falling or thought they were physically incapable; 27% thought that playgrounds were not designed for adult use and 22% thought it was illegal for adults to use playgrounds. Other concerns included being labelled as a paedophile, concerns about looking silly and a desire to not upset children by getting in their way. Only 2 stated that they were completely disinterested in the concept.

## **Discussion**

This study confirmed that playground providers and equipment manufacturers have to date given little thought to the possibility of designing playgrounds to meet the needs of older adults. Pahtaja et al. (2006) report that as well as experiencing significant health benefits, the older users who took part in their study derived considerable pleasure from the opportunity to take on the physical challenges posed by playground equipment and gained confidence in their own abilities as a result. The views of the older UK adults interviewed in this study both individually and as part of the discussion groups showed a mixed response to the idea of using playgrounds to exercise and have fun. Those who were already active showed more willingness to consider the possibility of using playgrounds. Those who were comparatively inactive were more disinclined to consider the potential benefits of playground use. This finding is worrying as those who are inactive have most to gain from even small increases in physical activity (Young, 2001; Mazzeo & Tanaka, 2001).

The study does show widespread interest in being able to partake in playground use cooperatively with accompanying children. This supports the efforts of Lappsett and others who are seeking to provide opportunities for inter-generational play. In light of the Disability Discrimination Act (DDA, 1995) guidelines have been issued by RoSPA and the National Playing Fields Association regarding inclusivity in playground provision for children and adult carers with disabilities. This is resulting in many new playgrounds

being constructed to meet the needs of disabled users, and thereby also increasing their physical accessibility to older users (e.g. by providing hand rails and supplementing ladders with gentle ramps). British standards for the manufacture of playground equipment (BSI, 1996) also ensure that the vast majority of playground equipment is already strong enough for adult use. However this study has confirmed the need to consider the social context within which products will be used when considering inclusivity as well as providing suitable physical designs. Concerns about intimidation from youths, and accusations of paedophilia resulting from males being seen without children in the vicinity of playgrounds were strongly voiced throughout the study. Similarly many held the view that adults were simply not allowed to use playground equipment or if it was allowed, its use by older adults would in any case be embarrassing for all concerned.

Supervised group use of playgrounds was seen as a way to overcome social barriers and encourage playground use as well as partaking in playground use with grandchildren. Perhaps providing more physically challenging equipment within exercise classes targeted at older users would be welcomed by those who are already physically active. This in turn could encourage more exploration of available public playground equipment. Where public play equipment is suitable for use by older adults (which is increasingly the case) then positive encouragement for all generations to use the equipment should be provided through appropriate positive signage, provision of ample seating, accessible toilets and general cleanliness. The presence of a playground attendant or someone else with authority was viewed as essential by many. Therefore, where playgrounds are supervised, attendants could be briefed to encourage adults to try equipment with or without accompanying children.

## **Conclusion**

This study has shown that while the UK older adults sampled were currently making very little use of playground equipment, there was notable interest in the concept of playground use particularly as a means of partaking in activity with grandchildren. Considerable social barriers to playground use have been highlighted by the study that must be countered before the majority of older users would be willing to try using playgrounds in either a supervised or informal setting. These barriers are likely to prevent use even where inclusive equipment is provided.

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## References

- Beckwith, J.** (1985), Equipment Selection Criteria For Modern Playgrounds In J. L. Frost & S. Sunderlin (Eds.) *When Children Play* (p. 209-214). Wheaton, MD:
- Biddle, S., Fox, K. and Boutcher, S.** (2000) *Physical Activity and Mental Health: a National Consensus*, Routledge, London
- British Standards Institute** (2005) BS 7000-6:2005 – Design Management Systems – Managing Inclusive Design – Guide, BSI, accessed via [www.bsonline.bsi-global.com](http://www.bsonline.bsi-global.com),
- Disability Discrimination Act** (1995) c. 50 ISBN 0 10 545095 2  
<http://www.opsi.gov.uk/acts/acts1995/1995050.htm>
- Frost, J.L.** (1997), *Child development and playgrounds*, Parks and Recreation, Arlington, VA: National Recreation and Park Association
- Frost, J.L.** (2006) *The Dissolution of Children's Outdoor Play: Causes and Consequences*, Common Good Conference, 31.5.2006, accessed via [http://cgood.org/assets/attachments/Frost\\_-\\_Common\\_Good\\_-\\_FINAL.pdf](http://cgood.org/assets/attachments/Frost_-_Common_Good_-_FINAL.pdf)
- Lawlor, D and Hanratty, B.** (2001) *The Effect Of Physical Activity Advice Given In Routine Primary Care Consultations: A Systematic Review*, *Journal Of Public Health Medicine*, 23, p. 219-226
- Mazzeo, R.S. and Tanaka, H.** (2001) *Exercise Prescription for the Elderly*, *Sports Medicine*, Vol. 31, No. 11, p. 809 - 818
- McTiernan, A. Cornelia, U. Slate, S. and Potter, J** (1998) *Physical Activity And Cancer Etiology: Associations And Mechanisms*. *Journal Cancer Causes And Control Issue* Volume 9, Number 5 / October, 1998 Pages 487-509
- Merz, C.N., and Forrester J.S.** (1997) *The Secondary Prevention Of Coronary Heart Disease*, *American Journal Of Medicine*, 102, P. 573 - 580
- National Audit Office** (2001) *Tackling Obesity in England*. Report by the Comptroller and Auditor General, HC 22
- Pahtaja, P., Hämäläinen, H, and Tero, L** (2006) *Exercising Senior Citizens' Balance and Motor Coordination*, Rovaniemi Polytechnic (RAMK), School of Sports and Leisure, MOTO+ project, Accessed via [http://www.smartus.org/showPage.php?page\\_id=62](http://www.smartus.org/showPage.php?page_id=62), June 2006
- Sillito, D.** (2006) *Finns Open Playgrounds to Adults*. BBC News 8 February 2006. <http://news.bbc.co.uk/1/hi/world/europe/4691088.stm>
- Thurston, M. and Green, K.** (2004) *Adherence to Exercise in Later Life: How Can Exercise on Prescription Programmes be More Effective?* *Health Promotion International*, 19 (3), p. 379 – 387
- U.S. Department Of Health And Human Services** (1996) *Physical Activity And Health; A Report Of The Surgeon General*, Atlanta, GA: U.S. Department Of Health And Human Services, Center For Disease Control And Prevention, National Center For Chronic Disease Prevention And Health Promotion;
- Young, A.** (2001) *The Health Benefits Of Physical Activity For A Healthier Old Age*. In: Young, A. And Harries, M. (Eds) *Physical Activity For Patients: An Exercise Prescription*. Royal College Of Physicians, London, Pp. 31–42.