

Seniors' Playgrounds May Never Get Old

Jessica Volkanovski¹ and Nancy Marshall²

¹. Shoalhaven City Council

². Faculty of Built Environment, University of New South Wales

Abstract: With Australia's population ageing, the Australian Bureau of Statistics predicts that by 2040 there will be approximately 6.8 million seniors in Australia. This context challenges planners to manage urban areas for this growing population and recognise that the built environment does not always accommodate the needs, preferences and abilities of seniors. An international trend in response to these circumstances is the design and installation of seniors' playgrounds. Absent of the stereotypical slippery dip and swings found in children's playgrounds, seniors' playgrounds are purposefully designed for people 65+ years. They focus on coordination, motor skills, and memory functions and accommodate various physical abilities and preferred sociabilities.

This paper introduces the concept of seniors' playgrounds, documents their brief history and provides some planning principles and considerations based on current practice. Two seniors' playgrounds in Sydney, in the areas of Leichhardt and Penrith local government area used to highlight these planning considerations. The practice of providing seniors' playgrounds is supported by scholarly literature on parks/playgrounds, place and age-friendly cities as why they are critical to a 21st century city. The knowledge of senior's playgrounds is useful to planners, designers and policy-makers given that there will likely be an increasing number of seniors' playgrounds in Australia's urban landscape.

Introduction

We are constantly reminded that as Australians, we are part of an ageing population with a long life expectancy (World Health Organisation 2002). In the 2011 Australian Census, the Australian population had a median age of 37 and a population of people aged 65+ years of 14% or 3,012,289 (ABS 2011). The proportion of people aged 65+ years increased by 0.8% or 367,921 people in the preceding five-year period. When compared to the overall population increase of Australia between 2006 and 2011 of 8.32% (1,652,427), the increase in 65+ years demographic makes up 22.27% (367,921) of the total population increase. As Salt (2008) notes, there is an increase in the number of Baby Boomers (those born between 1946-1964, post-World War II) in Australian society and as a percentage of its overall population. For the purposes of this paper, seniors are defined as individuals aged 65+ years in accordance with the Australian Bureau of Statistics (ABS 2011).

With a diverse, ageing population and its continuing burgeoning numbers, city-makers are challenged to plan, design and deliver a 21st century city for all ages. The needs and preferences for 'soft and hard' urban infrastructure for seniors are unique as they progress through their lifecycle. O'Brien states that when planning for an ageing population, a key priority "is ensuring enabling and supportive communities" and "meeting essential needs of mobility, social connection, and active, healthy ageing" (2014, p.220).

Within many urban environments, parks and other kinds of green and grey open spaces are found to be highly valued by the elderly aged 55 to 74 years (Marshall & Corkery 2011). The World Health Organisation (2007) identifies parks as having the ability to significantly encourage a city to become more 'age-friendly'. However, planning has been criticised in the past for providing "open spaces such as parks, playgrounds, and plazas...largely failing to serve their intended uses and users" (Francis 1987, p.72). Due to the particular and continuing needs of the senior demographic, this is still the case – open spaces are not always planned appropriately for the ageing population (Volkanovski 2014). A global trend in the provision of open space, specifically for the ageing population is the seniors' playground. Many are being designed and built around the world and the trend is now in Australia. However, for planners, landscape architects and builders, there is very little research or Australian practice from which to understand their form, function, costs and benefits.

The Concept of Seniors' Playgrounds

Adult-based outdoor exercise, which usually includes programmed or impromptu leisure activities, fitness equipment and sporting fields have provided benefit to middle-aged adults for several decades. Basic infrastructure is often provided specifically for adults and their health and fitness needs (Schilders 2013). The fitness parks and exercise infrastructure have been well studied with their

benefits noted (Sugiyama & Ward Thompson 2007, Ward Thompson 2013). Research into the benefits of exercise spaces specifically designed for senior age groups have been considered in parts of Asia for many years. However, seniors' playgrounds as a typology of park in western cultures has only been developed in the last decade, specifically in 2008 when the concept was first created and the first seniors' playground was established in Manchester, United Kingdom (Wilson 2015). In 2008, the establishment of a seniors' playground in Hyde Park, London received extensive media attention around the world (Royal Parks 2008). Seniors' playgrounds are now widespread in Europe and the United States, often being found indoors to accommodate harsher winter climates such as those in Northern Europe (Schilders 2013). Since 2008, Finnish researchers have studied how playgrounds can be redesigned for adults, particularly for senior citizens. By 2014, a Finnish company *Lappset*, one of the key seniors' playground equipment providers, had built more than 1000 seniors' playgrounds in over 23 countries (Lappset 2014). The number of seniors' playgrounds in Australia is very few.

The provision of seniors' playgrounds has been gaining international popularity and will likely become increasingly popular across local government areas in Australia as a direct result of the rhetoric behind and importance of having age-friendly cities. In Australia, the number of seniors' playgrounds has steadily increased from two in 2013 to several dozen by mid-2015 (Mäkelä 2015, pers. comm.). According to Mäkelä, more of these playgrounds are found in Victoria and Western Australia as they are being introduced in new housing estates and seniors' housing developments. The benefit of providing this type of age-friendly infrastructure encourages a more sympathetic built environment for the entire population, but especially for the elderly. These playgrounds are not about fitness, per se, but more about general physical and mental health and well-being, leisure pursuits, social inclusion and participation.

The seniors' playgrounds found in Australia and internationally generally represent two distinguishable design styles, each with slightly different purposes: *Physical Activity* design and the *Leisure and Intergenerational* design (Volkanovski 2014). Both are briefly explained below, using two Sydney examples to highlight design features, siting, and function.

Physical Activity Design

The type of equipment in a *Physical Activity* design playground appears to be typical fitness equipment, however, it differs with its low resistance levels to ensure seniors who are less mobile, have limited joint and muscle range or who experience pain with movement are able to use the equipment with ease. The equipment specifically targets balance and physical strength. The benefits of this design include improved core strength (which contributes to better posture and helps prevent back problems/pain); and increased muscle strength in shoulders, chest, upper back and triceps (Kompan 2014). As a result of regular physical activity using the seniors' playground equipment, seniors can gain cardiovascular fitness, recuperate their joints and muscle movement, increase energy levels and improve their ability to perform daily tasks without assistance. Although this *Physical Activity* design type is very activity-focussed, it also ensures the playground is in context that is senior-friendly (as described in later sections in this paper).

The Leichhardt Park senior's playground in the Sydney metropolitan area is a type of this design. The installation of this seniors' playground was identified in a *Recreation and Open Space Needs Study* prepared for Leichhardt Municipal Council which "highlighted the need for a facility [seniors' playground] of this nature" said Aaron Callaghan who sited and planned the playground (2014, pers. comm.). The *Recreation and Open Space Needs Study* identified a significant need to increase the level of physical activity in this older demographic in order to "assist general health and well-being objectives" and proposed that this be achieved through the planning and delivery of "active and passive recreational activities" in consultation with the LGA's older demographic (Stratcorp 2005, p.4). The particular location is subject to high pedestrian traffic resulting from the Iron Cove Bay Run which results in a sense of safety from the associated passive surveillance of the general park users. It also has a serene setting beside water and is located adjacent to a children's playground facility which provides seniors "the opportunity to socialise in an area which is family-based, in terms of the provision of a wider range of recreation activities" (Callaghan 2014, pers. comm.). The specific site was also chosen because it is a flat, accessible walkway (Callaghan 2014, pers. comm.).

The equipment used in Leichhardt Park and in the Hyde Park, London example is from the 'X-exercise' range of equipment by *Kompan* and designed specifically with seniors in mind. The eight pieces of equipment are placed on soft-fall flooring and offer opportunities for seven types of exercise interventions that "focus on strong and flexible training of heart, lungs and muscles to increase and

maintain a healthy lifestyle” (Kompan 2014, p.1). *Kompan* is one of the very few companies which provides specifically constructed seniors’ playground equipment.

Figure 1. Leichhardt Park Seniors’ Playground



(Photograph by Nancy Marshall 2015)

Leisure and Intergenerational Design

The *Leisure and Intergenerational* design of seniors’ playgrounds are more focussed on leisure and the social aspect of wellness and provide greater opportunities for social interaction between seniors and younger age groups compared to the *Physical Activity* design of seniors’ playgrounds mentioned above. Social interactions have the ability to improve moods, which result in reducing anxiety, stress, sadness and have overall mental health benefits (Pleson et al 2014; Sugiyama & Ward Thompson 2009). The intergenerational design is more like a children’s playground, without the typical slippery dip, swings and monkey bars. Mike Williams of UrbanGrowth NSW describes the design as facilitating “grandparents minding grandchildren” with both groups having age-appropriate equipment to use on the same site (Williams 2014, pers. comm.). Although the equipment has more of a playful style, it has been designed for active senior’s use and targets their coordination, motor skills and memory functions. Social activities are also very important in this design type.

Smith Paddock Playground in Penrith local government area, in metropolitan Sydney, is an example of a *Leisure and Intergenerational* design. Unlike the installation at Leichhardt Park, the installation of Smith Paddock Playground was introduced into the suburb of Thornton in Penrith prior to the establishment of a significant senior population in that area. It was designed by Fiona Robbé of Architects of Arcadia in conjunction with UrbanGrowth NSW.

Overall the playground incorporates 16 pieces of equipment, some of which include a shaking bridge, balancing stool, stretching board and finger stairs and has been constructed over soft-fall flooring and bark. The playground equipment provided can facilitate improvements in agility, coordination, balance and spatial awareness if practiced regularly (Robbé, 2014 pers. comm.). The approximate area of the playground facility equates to 60m², plus associated areas used for landscaping, a figure-eight walking circuit, barbeque and tables and chairs. In order to get the best outcome for the site, Robbé co-located the playground to as many facilities as possible including bathroom facilities, a café, accessible parking, drinking fountains, traditional children’s playground and a Village Green (Robbé 2014, pers. comm.). The equipment used here is from the ‘Senior Play Range’ by *Lappset*, the other major seniors’ playground equipment provider. Landscaping is low-lying to allow for passive surveillance

opportunities in and out of the playground area. Directly adjacent to the playground is a bus stop connecting the site with other areas in Penrith. This is similar to the many seniors' playgrounds found especially in Spain, Taiwan and Finland, including the very well-known Taavetinpuisto Park in Helsinki.

Figure 2. Smith Paddock Seniors' Playground, Penrith NSW



(Photograph by Jessica Volkanovski 2014)

Guiding Principles and Planning Considerations

The following guiding principles and planning considerations will be more or less relevant depending on the specifics of each seniors' playground site and as the concept of seniors' playgrounds develop generally. The authors see this as a starting point for the planning of new or the post-occupancy evaluation of existing seniors' playgrounds. Some of the considerations could fit under more than one principle but are only listed under one.

The principles and specific considerations here are gleaned from triangulating several data sets collected via a range of research methods and literature analysis. As part of this research, a series of in-depth interviews were conducted with experts in the disciplines of planning, landscape architecture, physiotherapy, environmental psychology, and recreation. The authors' own planning knowledge and practical experience were also drawn on for *in situ* analyses of the two examples above. A short questionnaire was administered to seniors using the playground at the Leichhardt site in 2014. Findings from the users of these facilities are important to include here. Finally, an extensive literature review was also conducted to support the descriptions, analysis of practice and recommendations for best practice. Particular emphasis was paid to literature regarding 'place', parks and age-friendly infrastructure as rationale for promoting seniors' playground in the 21st century city.

Guiding Principle: Accessibility

Accessibility is one of the main reasons why seniors will and can visit parks (Cooper Marcus & Francis 1998, Ward Thompson 2002). When planners refer to accessibility, they typically mean "the practical component of permeability, the extent to which an environment allows people a choice of routes through and within it" or more simply put, "the capacity to enter and use it" (Carmona et al. 2003, p. 137). Others may think of accessibility as it is linked to social equity and physical ability. Carmona et al also talk about 'access' and 'use' as qualities that contribute to 'publicness' (2013). Seniors'

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playgrounds are ideally linked into a transportation network, making them easy to get to by walking, driving or public transport. The playgrounds themselves should also have an internal, physical layout and facilities/equipment that are easy to understand and use by all abilities.

Considerations:

- **Site:** gradient, walkability, physical aspect, legibility, spatial dimensions, age-friendliness, proximity to seniors' housing
- **Walking track/paths:** gradient, length, ease of use, seating, lighting, visibility, signage, non-slip surface
- **Information about the playground and its equipment:** directive and advisory information, multi-lingual information, plain language format, multi-culturally appropriate material
- **Transportation and network links:** access by different travel modes to the site (e.g. bus, car, walking, cycling), availability of mode, usage, convenience, ease of use, parking, safety
- **Co-location of facilities:** close to public toilets, bubblers/water fountains, family picnic areas, intergenerational play areas, food and drink outlets, sporting fields

Guiding Principle: Uses, Activities and Affordances

Carmona et al. (2013 p.137) describe this principle as a measurement of "whether the space is actively used and shared by different individuals and groups." The frameworks of behavioural setting and affordance are also relevant to this principle. People scan environments to understand it and ascertain what aspects of it are of use to them – what it can afford them (Gibson 1979). People are likely to ask themselves 'what can this site afford me; how could I possibly use it'? This may or may not be the intended use of the site or the equipment within a site (Moore & Cosco 2007). Although seniors' playgrounds have been designed with seniors in mind, other age groups, especially children and youth believe it can afford them a place to play or exercise. This ultimately influences the overall use and activities that actually occur at these sites. Important aspects of this principle include the characteristics of the seniors, themselves which may influence their use and engagement with the site. This includes their ethnicity, age, gender, physical and cognitive abilities, family and friends network, and socioeconomic status (PPS 2008, Robbé 2014, Ozer & Baris 2012).

Considerations:

- **Equipment:** level of challenge, ease of use, placement, number, availability, variety, appropriateness, maintenance
- **Variety of elements in the site:** choice based on different levels of mobility, physical capabilities, types of activities and equipment, regularity of programs, optional versus required activities within the site, conflicts of space
- **Distribution:** location of activities/facilities, level of use
- **Affordance:** interest in the site, equipment, challenge factors, human scale, length of stay, who is actually using the site
- **Special events:** type, frequency, inclusivity, variety, location, cost

Guiding Principle: Supportive Environments (Sociability)

"Meeting and talking with others seem to be the main reasons for many older people's use of shared spaces" (Cooper Marcus & Francis 1998, p.93). Social activity not only encourages seniors to utilise a space more, but it also has the added health benefit of reducing the onset or severity of functional declines and chronic diseases, improves mental health and encourages autonomy and independence by enabling daily tasks to be performed without assistance (WHO 2002; Pleson et al 2014).

Intergenerational opportunities provide "more bang for the local government's buck because you can have two different types of user groups using the equipment" (Mäkelä 2014, pers. comm.). "For these [seniors' playgrounds] to be successful, it is not just about installing the equipment and the Council advertising that the park is open. For the first two or three months, it needs to take the users through and show them how to use the equipment...this can overcome fears of failure" (Mäkelä 2014, pers. comm.). Sociability requires people and 'street furniture' that facilitate observation and conversation. Elements within a site that enable these include moveable tables and chairs, games, or special features or other people to watch (Cooper Marcus & Francis 1998; Aspinall et al. 2010; Whyte 1980). Sociability requires that the other attributes be adequately addressed.

Considerations:

- **Social interaction:** placement of 'street furniture,' type and strength of social networks, diversity of patrons, food and drink availability, games (e.g. Chess sets, Bocce/Bowls)

- **Special features:** fountains, light shows, urban wildlife (e.g. birds, small animals) and welcoming foliage for shade or aesthetic viewing, artworks all as discussion points or things to observe
- **Intergenerational opportunities:** use of equipment or the space by various age groups or co-located, location of nearby opportunities
- **Guided programs/events that promote equipment use:** frequency, variety, availability, comfort, safety, multi-lingual physiotherapist or another exercise expert on-site or to be booked, cost

Comfort and Image

Comfort and image relates to how comfortable or at ease users feel about staying in a place as a result of perception and reality. The vulnerability and fear of seniors to personal injury, particularly from trips and falls, discourages their use of places (Cooper Marcus & Francis 1998; Ward Thompson 2002). Crime Prevention Through Environmental Design [CPTED] principles can be useful when operating at seniors' playground sites (NSW DUAP 2001).

Considerations:

- **Safety (injury):** trips and falls prevention measures, protection against environmental factors, natural and artificial shade, natural elements protection (e.g. wind, rain, sun), equipment instructions (clarity, legibility, and ease of use)
- **Safety (socially secure):** natural or community surveillance, site access control, territorial reinforcement, use of fencing, site legibility, overall park management, security guard/volunteer, number of other users on site
- **Furniture:** type, variety, ease of use, seating, availability, location, tables, sturdiness, comfort, upkeep
- **Aesthetics:** welcoming, spacious, visible, light, positive image of the park, reputation, natural landscaping, maintenance, clean, safe, ambience

Health and Well-being

To assess a seniors' playground users' pre and post use health and well-being requires input from a suitably qualified professional and involvement from the seniors themselves. As noted by a seniors' equipment provider, "we want to look at whether there is improvement in movement [such as] being able to walk without assistance or aids like walking sticks. Is the user's experience an improved standard of living...because that is what the equipment is ultimately trying to achieve" (Mäkelä 2014, pers. comm.). Much more research is needed in this area to determine the cost and benefit of such infrastructure.

Considerations:

- **Physical health measures:** balance, movement, flexibility, strength, standard of living, endurance, daily living improvements, overall quality of life benefits
- **Mental health measures:** mental wellness, level of isolation, level of engagement, sense of community belonging, place attachment, legitimacy as a key member of society
- **Environmental quality of the playground:** sound, air, sunlight, tactile qualities, green and grey landscaping, visual lines/aspects/design

The above sections of this paper have described seniors' playgrounds, shown two Australian examples representing current practice and provided some guiding principles and planning considerations for these sites. The following section justifies why these facilities and investment in open space for seniors is important to a 21st century city based on relevant literature.

The Theoretical Rationale

Place

Postmodern planning practice increasingly promotes the importance of people's relationship to place (Marshall & Corkery 2011, Relph 2008). This is achieved by recognising the factors that contribute to place creation, and the key variables that combine to make places known, used and memorable to individuals. Various elements and qualities of open space as a place can contribute to its success. "What begins as undifferentiated space becomes place as we get to know it better and endow it with value" (Tuan 1977, 6). Tuan (1977) goes on to suggest that place moves beyond being a geographical construct when people experience it and form a relationship with other people and neighbouring lands, attaching to it a collective consciousness of symbols, meanings and values.

"The success of a particular public space is not solely in the hands of the architect, urban designer or town planner [or through these attributes of a successful place]; it relies on people adopting, using and managing the space – people make places more than places make people" (Worpole 2007, p.1). Despite that understanding, some determinants of what makes a successful place have been identified by many scholars and practitioners. One simple but practical framing of 'place' has been structured by The Project for Public Spaces [PPS], a New York based urban design and landscaping not-for-profit consultancy. Its four key attributes include: 1) access and linkages, 2) uses and activities, 3) comfort and image, and 4) sociability. These over-arching attributes are further broken down into sub-categories of intangibles and then measurements which can be objectively calculated to 'measure' the success of a place (PPS 2008, p.1). This frame was used as a starting point for the guiding principles and planning considerations for seniors' playgrounds presented above. Whilst this framework prompts planners to think about the aspects of a successful place, a major weakness of this framework is that it is very generic and is aimed at any type of place. Many, including the authors, believe that these types of attributes should be specific to certain types of places (Bishop 2104, pers. comm.).

Parks

Traditional public parks are said to have originated "from a democratised version of the English country estates" which reflected "an idealised pastoral of open meadow, browsed trees, and sculpted topography" (Girling & Helphand 1997, p.40). As a result of social reforms particularly to do with healthy living and quality of life, the locations of parks were planned in a distinguishable pattern to achieve an "amelioration of health and well-being through improvements in the physical fabric of the city" (Eisenman 2013, p.289). In an Australian context, open space and public parks were introduced in the early 20th century as "a major theme of the town planning movement" which was aimed at "securing a healthy, happy and contented population" (Freestone 2010, p.251). Parks now offer a range of natural, ecological, and at times, economic, cultural and social benefits to urban centres (Marshall & Corkery 2011).

Whilst built environment and other professionals have thoroughly researched the developmental benefits of parks to children, the developmental needs of teenagers and seniors who are other major user groups of open space are often overlooked in open-space planning (Francis 1987). With the increase in density of most cities and the concept of some seniors downsizing their housing, accessible and appropriate open space becomes important infrastructure in a community. Open space includes a number of different green and grey environments. Historically, public open space came in the form of "the medieval town square or piazza [and] was often the heart of a city, its outdoor living and meeting place" (Cooper Marcus & Francis 1998, p.1). These spaces were particularly valued by a city's elderly population. Today, public open space has been expanded to "parks, gardens, shopping areas, sporting fields, public squares and plazas, playgrounds, walking and biking trails and natural areas" (NSW Health 2009, p.97) where each of these types has its own role or function within its contextual setting. None of these spaces though are particularly aimed at the increasing numbers of seniors in a city.

Park design has been changing with the times and trends of society. At one point in time, park design revolved around providing green landscapes in the Garden City Movement to provide a place away from industrialised urban areas (Freestone 2010). Other design influences are derived from territorial range development; behaviour setting; and affordance theory (Barker 1976; Gibson 1979; Moore & Cosco 2007; Ward Thompson 2013). Moore and Cosco describe the application of these three later frameworks to park design as emphasising "exploration challenges and discoveries," "relationships with properties of the environment," and "functionality of layout" (2007, p.87). Their consideration in designing the family park is said to "support social, psychological and cultural objectives [which is considered to be] of paramount importance" in order to "serve a longitudinal function as a place where children, families and communities can develop and become sustained for all ages and abilities" (Moore & Cosco 2007, p.88). These design ideals should be applied to the relatively new concept of seniors' playgrounds.

Open space design becomes complex where the different needs and values of user groups are required to, and should be, considered. In contemporary societies these different populations contest limited urban spaces which is often a source of conflict (Francis 1988). This issue is particularly relevant when considering the demographic of 65+ years, as their needs for, and values of open space, are significantly different to that of more fit and active demographic user groups. The potential benefits of green spaces including parks and playgrounds to seniors are undeniable. However, despite their known benefits, "older adults may be less likely to visit green spaces when compared to other

age groups” which represents a “juxtaposition of potential benefit with underutilization presents a challenge for the optimal use of green spaces in communities and for the promotion of physical activity in older adults” (Pleson et al. 2014, p.1445). Planning frameworks for age-friendly cities must consider senior populations and inclusive open space planning, design and management.

“Green spaces are an integral aspect of age-friendly built environments” and are fundamental in maintaining health and life satisfaction (O’Brien 2014, p.224). The WHO’s (2007) *Guide to Age-Friendly Cities*, a study of 35 cities from around the globe, explored the age-friendliness of different cities. In this study green spaces were identified as one of the most highly regarded age-friendly features. The WHO (2007) suggests that the following characteristics make parks and playgrounds particularly ‘age-friendly’: a pleasant and clean environment; a secure environment; somewhere to rest; accessible facilities; walkways and cycle paths; and adequate public toilets. Cooper Marcus & Francis (1998) suggested that comfort, safety and security, ease of access, and opportunities for meeting others and socialising opportunities are characteristics of open space that are considered to be the most important. This is expanded on by Chow (2013) who adds that the presence of facilities, park size, things to watch, events to attend, and maintenance are characteristics of significance, especially for older people. Adhering to these collective recommendations, parks and playgrounds should be universally and inclusively designed to be age-friendly. Seniors’ playgrounds are seen to be ‘fit for purpose’ when specifically sited and designed for this age group are critical when planning for an age inclusive city (Sugiyama, Ward Thompson & Alves 2009). These playgrounds fit within the policy framework of ‘active ageing’ and ‘age-friendly’ cities by the WHO (2002, 2007).

Cities and Seniors’ Infrastructure

As mentioned, it is fundamental that age-friendly built environments are provided to address population ageing and to help improve the quality of life of older people (O’Brien 2014). Having an ageing population is described by the WHO (2002, p.6) as one of “humanity’s greatest triumphs...[and] greatest challenges” due to the economic and social pressures it places on government agencies to provide better, more appropriate infrastructure that facilitates independent living for individuals 65+ years. In order to address the opportunities and challenges of ageing populations, the WHO adopted a policy framework for ‘active ageing’ in 2002, and ‘age-friendly cities’ in 2007.

Active ageing in age-friendly cities is described as a “process of optimising health, participation and security” to encourage independent living in supportive physical and social environments that cater to all ages and physical abilities (WHO 2002, p.12, WHO 2007).

Figure 3. World Health Organisation’s
 Determinants of Active Ageing Age-Friendly Cities Topic Areas



(Source: WHO 2007, p.19)



(Source: WHO 2007, p.9)

It is evident that planners have the ability to influence the WHO’s determinants of active ageing (shown on the left side of Figure 3) and to have a direct impact on age-friendly city development (shown on the right side of Figure 3). The ways and extent to which planners have an impact here is too extensive and complex to discuss within the bounds of this paper. However, these guiding

frameworks indicate broadly what influences and determines 'active ageing' and some specific areas that must be considered when planning for the age-friendly cities. The establishment of age-friendly infrastructure in metropolitan, peri-urban, and rural local councils should be introduced proactively, rather than reactively to facilitate seniors having a 'right to the city' and all of their services and facilities (WHO 2007; O'Brien 2014). Seniors, like all other urban citizens, should be able to feel like active, engaged and legitimate participants in city life. These frameworks were also considered in the structuring of the guiding principles and planning considerations specifically for seniors' playgrounds presented in this paper.

Conclusion

The World Health Organisation (2007) and many other scholars and practitioners urge built environment professionals and city-makers to facilitate 'active ageing' in 'age-friendly' cities, conceptually and in practice. As part of this, open spaces and parks have been critiqued over many years to determine whether they "offer the right framework, the right extent and complexity for modern and future needs" (Ward Thompson 2002, p.60). When considering the ageing population, it would be inappropriate to continue to design parks and playgrounds as has traditionally been done in the past.

This paper has put forward some guiding principles and planning considerations for a new type of green space – the seniors' playground. It is hoped that planners will consider these when working with landscape architects and other city-makers to deliver seniors' playgrounds. Each playground will have unique site challenges and opportunities, sociocultural contexts, community profiles, resources and political support or challenges. Collectively though, they will make cities more green, sociable, accessible, inclusive and healthy. As new sociocultural and health trends emerge, the concept of seniors' playgrounds develop, and what is important to seniors changes, further research must occur in order to ensure planners respond to the health and social well-being of seniors and their cities.

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