



Exploring The Use Of Landscape As A Therapeutic Variable In Geriatric Hospitals

Oji, C. Maxwell; Agbonome, Peter & Ukaegbu, Favour

Department of Architecture,
Faculty of Environment Sciences,
Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.

ABSTRACT

This article explores the transformative potential of incorporating landscape design as a therapeutic variable in geriatric hospitals. Recognizing the unique healthcare needs of elderly patients, the study delves into the profound impact that thoughtfully designed outdoor spaces can have on the physical, mental, and emotional well-being of geriatric individuals. Through an interdisciplinary approach that combines principles of landscape architecture, environmental psychology, and geriatric care, the research investigates how specific landscape features and interventions contribute to enhanced patient outcomes. The study employs qualitative research methods, including case studies and literature reviews, to examine existing geriatric hospital designs that prioritize landscape integration. It analyzes the correlation between access to nature, improved cognitive function, and overall patient satisfaction. Additionally, the research explores the role of sensory gardens, therapeutic walking paths, and restorative outdoor spaces in promoting social interaction and reducing feelings of isolation among geriatric patients. By unveiling the therapeutic potential of landscapes within geriatric hospitals, this article aims to inspire healthcare architects, designers, and practitioners to adopt a patient-centered approach. The findings emphasize the importance of intentional landscape planning in fostering a healing environment that supports the unique needs of elderly patients, contributing to holistic and person-centered healthcare practices.

Keywords: Landscape Design, Geriatric Hospitals, Therapeutic Variables, Patient-Centered Healthcare, Environmental Psychology, Elderly Patient, Outdoor Spaces

INTRODUCTION

Biologically, growing old is a slow and irreversible process. It presents as decline in the vitality and function of tissues and cells and substantially increased risks of several kinds of aging-associated ailments, including immune system disorders, musculoskeletal disorders, metabolic disorders, cardiovascular disorders, and neurodegenerative disorders. It is commonly known that the world's population is ageing at a rate never seen before, a persistent worldwide phenomena with significant ramifications for many aspects of daily life. According to a 2010 estimate from the United Nations Population Division, Department of Economic and Social Affairs, the percentage of people 65 and older in the United States is expected to rise significantly, from 13.3% at the current time to a predicted 20.1% in 20 years (World Population Prospects: 2010). The recorded death prior to the burial or other means of deceased disposal for the periods of 2017 to 2019 in Nigeria. The total number of deaths registered was 15,153, in 2017. It reduced to 13,329 in 2018 and 10,245 in 2019. (National Population Commission, 2020)

In such cases, it is only right that The Architect's allies professional forces to identify and design the most comfortable and encouraging settings for these later stages of life, regardless of the circumstances. Incorporating gardens in Geriatric hospitals for assisted living, memory care, or rehabilitation facilities that promote self-sufficiency and sensory engagement is a financially viable, non-pharmacological way to enhance the lives of those who require these kinds of housing (Lieberman MA. 1974). Elderly people

who live in therapeutic gardens have the option to leave their flat and go into a natural environment that encourages physical activity and awakens all of the senses.

Aim

The aim of this article is to explore the role of landscape as a therapeutic variable in geriatric hospitals, with a focus on enhancing the overall well-being and healthcare experience of elderly patients. Through an examination of landscape design principles and their impact on the physical and psychological aspects of elderly individuals, the article seeks to contribute valuable insights to the field of geriatric care and patient-centered healthcare environments.

RESEARCH METHOD

This article employed a qualitative research methodology, utilizing in-depth interviews, focus group discussions, and direct observations via case studies to gather rich and nuanced insights into the experiences of elderly patients in geriatric hospitals. By engaging with the perspectives of both healthcare providers and patients, the research aimed to uncover the subjective dimensions of the therapeutic effects of well-designed landscapes in these healthcare settings. Additionally, a comprehensive literature review was conducted to contextualize the findings within the existing body of knowledge on therapeutic landscapes and their impact on geriatric care.

FINDINGS

People can "attain physical, mental, and spiritual healing by simply spending time out-of-doors or seeking out remote or isolated places where they can 'get away from it all', surrounded by nature," according to a prevalent concept in the urbanised West (Gesler, 2003, p. 8). When we talk about nature, we usually think of unspoiled woods and lakes in the middle of nowhere, but we can also think of potted plants, trees on a street, a fountain in a courtyard, and other things that look natural. Accordingly, we define nature in this work as a range of habitats, spanning from vast wilderness areas to community gardens and domestically grown flora (Maller et al., 2005). The scholarly research has recently established a connection between nature and health and wellbeing (Hartig et al., 2014; Mitchell, 2013; Dinnie et al., 2013; Hartig et al., 2011; Abraham et al., 2010; Bowler et al., 2010). Pioneers in this subject, Kaplan and Kaplan (1989) claimed that people who have access to local natural settings are generally healthier than other people.

The promotion of ambulation, happy memories, reduced stress, and stabilised sleep-wake cycles is another goal of therapeutic gardens.(Oreg J Aging, 1991). According to the information in this page, spending time in nature has been linked to enhanced concentration, decreased discomfort, and altered stress reactions. Furthermore, unfettered access to an outside space may lessen aggressive behaviours, medication use, and falls in dementia patients, according to certain research.

Landscape As A Therapeutic Variable

Gesler (1992) first introduced and coined the term "therapeutic landscapes" (TL) in reference to a healthy environment. Investigating why some settings seem to support a "healing sense of place" is the goal. "Where the physical and built environments, social conditions, and human perceptions combine to produce an atmosphere which is conducive to healing" (Gesler 1996) is the definition of a healing environment according to TL. Four broad components that define a TL can be summed up within the concept:

- 1) Natural environments (such as green and blue spaces);
- 2) Artificial/built environments (such as design features);
- 3) Social environments (such as sense of place, attitudes, and values); and
- 4) Symbolic environments (such as places of worship and regional identities).

Consequently, it is crucial to comprehend both the objective aspects of a space that support social and physical health as well as the more individualised ways that individuals may perceive and utilise it.

Scholars have discussed how healing processes might be incorporated in locations, settings, milieus, and localities within the therapeutic landscape research tradition (Lea, 2008). Therapeutic landscapes were initially described as locations with "an enduring reputation for achieving physical, mental, and spiritual healing" by Gesler (1993). This includes the social, psychological, and physical settings related to health maintenance and treatment. Spas, holy sites, gardens, retreat centres, houses, pilgrimage sites, and medical facilities are examples of therapeutic landscapes (see Gesler (2009); Lea (2008); Conradson

(2005); Williams (1998); Gesler (1992)). Academics expanded the idea to non-conventional therapeutic environments, like residential areas (Williams, 2002), kids' summer camps (Kearns and Collins, 2000), and community gardening initiatives (Milligan et al., 2004). Consequently, restorative landscapes include intricate reciprocal connections between

Accordingly, complex reciprocal linkages between an individual and their larger socio-environmental milieu are included in therapeutic landscapes (Conradson, 2005).

Higher levels of contentment with one's residence, place of employment, and life in general are among the long-term and secondary benefits of "nearby nature". Physical and mental health are enhanced by being outside (gardening, hiking, gazing through a window, strolling through a park, etc.) and by engaging in outdoor activities (Maller et al., 2005, Pretty, 2004). For instance, taking a stroll through a park, beach, or forest can help with stress relief and psychological rehabilitation (Hartig et al., 2011, Abraham et al., 2010).

Parks, gardens, and forests are examples of natural places in urban and wilderness settings that are commonly referred to as "green space" (e.g., van Dillen et al., 2012; Lee and Maheswaran, 2011, Maas et al., 2006). Research has demonstrated that having access to both a sufficient and high-quality green space in one's neighbourhood can have restorative effects, be positively correlated with reported stress and quality of life, and be linked to increased perceived health (Hansmann et al., 2007, Maas et al., 2006). Obesity and physical activity have been linked to the location and layout of locally accessible green space (e.g. Lachowycz and Jones, 2011; Coombes et al., 2010; Maas et al., 2008; Björk et al.2008). In order to foster and preserve neighbourhood social links, green areas can also serve as beneficial gathering locations for people (Lee and Maheswaran, 2011).

Another key idea that might enhance wellbeing and health is "blue space." In this study, we refer to aquatic landscapes with either standing or flowing water as blue space. These can be found in both natural and urban settings. In addition to minor water features like fountains and streams, blue space includes seas, lakes, and rivers (White et al., 2010). Within the field of therapeutic landscapes, holy wells in Ireland are referred to as "a piece of micro-landscape of healing and wellness" by Foley (2011). In the past, a lot of healing locales were found near springs and other water sources (Gesler, 2003). Today, people still travel to holy wells, baths, spa towns, seaside areas, and contemporary spas in an effort to "take the waters" and find peace and healing (Foley, 2010; Smyth, 2005).

The percentage of elderly individuals in the world's population will climb in the near future. We are challenged by this shifting demography to think about the kinds of settings that encourage good ageing. One important aspect of wellbeing is nature, and green and blue spaces can give older people opportunity to improve their quality of life, social relationships, physical and mental health, and overall sense of wellbeing. We do not, however, have much knowledge of these correlations. Except for a few significant research (Coleman and Kearns, 2014; Aspinall et al., 2010; Sugiyama and Ward Thompson, 2007; and Milligan et al., 2004), very few studies to date explicitly address the experiences of older persons.

Given the wide range of health, functional status, attitude, and lifestyle variations among older persons, the effects of green and blue spaces may differ significantly. In other words, how do personal, societal, and environmental elements interact to promote and maintain older individuals' health and wellbeing? Furthermore, what impact do older persons' individual circumstances and perspectives have on the nature-health interaction they have with landscapes? We concentrate on the possible restorative and health-promoting effects of green and blue spaces for older persons in order to start addressing these problems.

In particular, we evaluate if and how these areas can support the physical activity, mental health, and social interaction of older persons. The study looks at perception, safety, and accessibility as well as other challenges unique to older persons that impact their encounters with potentially therapeutic landscapes. We are perceptive to a variety of real-life, ordinary experiences with unofficial therapeutic environments. This aids in the creation and development of more varied therapeutic regions.

The concept for the residential care home Donaustadt is based on an extensive program of the City of Vienna to react timely and functionally to current demographic conditions by establishing adequate public healthcare institutions. Not a medical institution in the conventional sense is provided in the northern side of the city, but housing for users who due to their age or illness are facing special spatial requirements. The guiding idea for the extension of the residential care home Donaustadt encloses a re-

organisation of urbanistic conditions, which increases the use and quality of the surrounding public spaces. (Delugan Meissl Associated Architects, 2015)

The solid and clear outer aspect finds its continuation in the interior of the building through the constant application of characteristic materials. Manifold situations with a certain urban quality are provided for in the interior of the building. These public spaces enable the inhabitants of the house to participate actively or passively in the community life. In combination with the specific furnishings, the use of these spaces can be individually adapted, the inhabitants have the choice, whether and in which form they want to engage with the other residents. Circumferential loggias offer a direct contact with the outside world. The two inner courtyards with mobile art installations bring forth an additional visual stimulus.

The layering of partly mobile wood, glass and textile elements forming surrounding loggia ranges at the façades was established in favour of a highly cost optimised energy balance. The individual use of these spaces leads to a visible change of the façade and imparts a lively aspect to the shaped form. Variable free spaces consisting of terraces, different garden zones with outdoor furnishing and paths, follow the architectural concept of engaging the users. An easily accessible central service centre was created with consideration of the surrounding public circulation. With this approach to designing hospitals, this project demonstrates a positive link between the privacy of the everyday living within a geriatric centre and the surrounding city life outside.



Plate 1; 3D view of the hospital

Source: https://www.archdaily.com/781339/geriatric-centre-donaustadt-vienna-delugan-meissl-associated-architects?ad_source=search&ad_medium=projects_tab

Architecture is constantly changing and adapting to new needs, which are linked to social, economic, technological, political, and demographic changes. In this sense, the aging population is one of the most outstanding changes of the 21st century: The increase in life expectancy and the decrease in fertility rates mean that the older population is increasingly numerous. How can architecture help to provide a better quality of life, promote the autonomy, dignity, and well-being of the elderly? This trend has led to thinking and redesigning many aspects of medical care, hospital design, and accessible cities. However, studies focused on the psychological well-being of the elderly population who live independently, show the negative effects of loneliness, social isolation, and difficulties in terms of self-care needs.

Architects can play an important role in addressing the source of this loneliness and dramatically help increase the quality of life for a part of the population that is often isolated. Living in retirement communities provides an opportunity for engagement and interaction as a way to start to get rid of this

stigma and allow residents to retain their independence. The following examples illustrate how, through good design, it is possible to establish a community framework of mutual support. (Manuel Ocana, 2003).



Plate 2: courtyards view of the hospital

Source:https://www.archdaily.com/24725/santa-rita-geriatric-center-manuel-ocana?ad_source=search&ad_medium=projects_tab

In the small town of Rijssen 2by4-architects designed the new healthcare and housing complex 'Eltheto' for elderly people. Until recently elderly people were seen as a group that functions outside of modern society and are only in need of care. The contemporary healthcare centers and housing for elderly people are still designed according to his idea. Over the past decennia this resulted in a range of introvert buildings where the main focus is healthcare instead of the quality of life itself. For Eltheto 2by4-architects inverted this concept and separated the housing and healthcare program. The housing program functions like a particular housing program that one would find in a suburb. They are open and social housing blocks where the main focus is on the quality of life and staying part of the social context. For the less independent inhabitants the housing program is adjusted according to their needs, but still the focus on quality of life remains.

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Eltheto's goal is to keep elderly part of modern life and society by providing the right healthcare and housing that fits their current needs. If their needs will change they are able to receive health care at home or move to one of the other Eltheto buildings that are designed to provide more specialized health care. This way they can stay home longer and when they eventually need to move they'll stay within the same neighbourhood. The 4 housing blocks at the Eltheto complex provide housing for independent elderly singles and couples, elderly with Alzheimer, elderly with somatic disabilities and mentally disabled elderly. These 4 housing blocks are situated around several public spaces. The public spaces interact between the housing blocks, the centrally located healthcare centre and the neighbourhood. The public space is owned by the client, a housing corporation and a health care organization, who want the elderly to use the public space according to their own ideas.

The elderly are stimulated to organize themselves and use the public place for programs like communal gardening, outdoor events and meetings, play games like Pétanque or just sit under one of the trees and enjoy the things happening around them. The public space acquires its green character by its numerous

trees and plants, all carefully chosen by colour, shading amount, flowering period and fruit types criteria. All this contributes to the so-called natural healing environment. The communal healthcare centre is located in the centre of the public space and can be seen as the heart of the whole complex. It provides health care services not only for the people living at Eltheto, but also for the neighbourhood. Besides health care the centre incorporates many some public services, such as a restaurant, a library, a shop for daily groceries, a meditation centre, day care, hair salon and numerous activity areas and office spaces.

The centre is accessible directly from the public space in order to strengthen even more the relationship between the indoor and outdoor spaces as well as the overall public character of this modern healthcare complex. (2by4-architects 2015)



Plate 3: front and courtyard view of the hospital

source:<https://www.archdaily.com/774238/eltheto-housing-and-healthcare-complex-2by4-architects>

CONCLUSION

The exploration of landscape as a therapeutic variable in geriatric hospitals underscores the profound impact that well-designed outdoor spaces can have on the overall well-being of elderly patients. Through an in-depth investigation and analysis of qualitative data, this article has illuminated the positive effects of therapeutic landscapes on the physical, mental, and emotional health of geriatric individuals. The findings suggest that carefully planned and aesthetically pleasing outdoor environments contribute significantly to creating a healing atmosphere, fostering a sense of tranquility, and promoting social interaction among elderly patients. As we navigate the complexities of healthcare design, this research emphasizes the importance of integrating nature-oriented elements into geriatric hospital settings to enhance the overall quality of life for aging individuals.

These conclusions not only advance our understanding of the significance of landscapes in healthcare but also offer practical insights for architects, healthcare professionals, and policymakers. By recognizing the therapeutic potential of landscapes, we can strive to create environments that cater to

the unique needs of geriatric populations, fostering healing, comfort, and a greater sense of connection with nature in the realm of healthcare design.

RECOMMENDATIONS

1. Designers and healthcare professionals should consider the integration of healing gardens within geriatric hospital premises. These spaces can be specifically tailored to accommodate various therapeutic activities, social interaction, and exposure to nature.
2. Ensure that outdoor spaces are easily accessible to all patients, including those with mobility challenges. Design features such as ramps, pathways, and sitting areas should be inclusive and accommodating to the diverse needs of elderly individuals.
3. Explore the incorporation of multi-sensory elements in the landscape design, such as aromatic plants, water features, and textured surfaces. Engaging multiple senses can enhance the therapeutic benefits of the outdoor environment.
4. Establish collaboration between landscape architects and healthcare providers to create designs that align with the medical and therapeutic goals of geriatric care. Regular communication and interdisciplinary collaboration can lead to more effective and targeted landscape interventions.
5. Encourage and support long-term research initiatives that assess the sustained impact of therapeutic landscapes on geriatric patients. This includes tracking the physical and mental health outcomes over extended periods to understand the long-term benefits.
6. Develop educational programs for healthcare professionals, architects, and caregivers to raise awareness about the importance of therapeutic landscapes in geriatric care. Training initiatives can foster a deeper understanding of the potential benefits and encourage the adoption of nature-centric designs.
7. Advocate for policies that promote the integration of therapeutic landscapes in healthcare facilities, emphasizing the positive impact on patient well-being. Collaborate with policymakers to incorporate guidelines that prioritize outdoor spaces in geriatric care environments.

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