

ICRP 2019

4th International Conference on Rebuilding Place

ELDERLY NEEDS OF GARDEN IN RETIREMENT HOMES: A SYSTEMATIC REVIEW

Wan Noor Anira Hj Wan Ali @ Yaacob (a)*, Nur Huzeima Mohd Hussain (b), Marina
Abdullah (c)

*Corresponding author

(a) Wan Noor Anira Hj Wan Ali @ Yaacob, Department of Landscape Architecture (FSPU), UiTM Perak,
wannoor367@uitm.edu.my

(b) Nur Huzeima Mohd Hussain, Department of Landscape Architecture (FSPU), UiTM Perak, Malaysia
(c) Marina Abdullah, Department of Landscape Architecture (FSPU), UiTM Perak, Malaysia

Abstract

Ageing is part of living processes. Getting old can carry health challenges. The elderly will also face problems in physical and psychological. However, many studies revealed a green environment could support their well-being needs. Garden is part of a green background that ensures a sense of calmness and peace. Besides, it's making the elderly stay active and positives. This study adopted a systematic literature reviews pieces of evidence for elderly needs of the garden in Retirement Homes. This concern of 20 studies literature related to green space of yard for the elderly. The fear was to examine the significant relationship of the garden on the mental and physical. This mix-method quantitative and qualitative analyses the selected databases established by Scopus and Science Direct. All papers reviewed from 2000 to 2016. The review process included identifying, screening and legibility. This review highlights the needs of the garden for the elderly at Retirement Homes are vital for resilient living. The finding revealed that elderly do need a specific green space or garden at Retirement Homes or Care Centre for improving their quality of life. This finding significantly leads towards the implementation of the garden area as health promotions and psychologically well-being engaged between the society and the community

© 2019 Published by Future Academy www.FutureAcademy.org.UK

Keywords: Elderly, green; garden, Retirement Homes, well-being, community.



This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

1. Introduction

The elderly is part of our community, and population ageing is a global phenomenon for all facets of human life. The explosion of the ageing population presents difficult challenges for older health systems. Therefore, The United Nation's World Health Organization (WHO) mentioned that older people need more exposure and contact with natural environments. This scenario has significant penalty for governments as they address the socio-culture and comfort issues of the elderly all-inclusive (Imrie, 2003). Retirement homes for the elderly take on special significance as the rapid pace of ageing in our society are widely recognized. Dahlan, Nicol, and Maciver (2010) mentioned that increasing of the elderly showed that placing the elderly at retirement homes is becoming common. Another alive of the elderly at retirement homes should balance with the social and physical environment to support their daily life and health (Dahlan et al., 2010). Much scientific evidence indicates that natural environments or garden can promote human health (Clatworthy, Hinds, & Camic, 2013). Visiting the garden is can improve the elderly mood and quality of life. Too, access to garden has connected with healthier in older people; yet, little known about the conditions of experiences in green and gardens that may endorse health.

Garden is seen as imperative nature support tools to the health facilities and fabricates sustainable for the elderly communities at retirement house. Garden also can create their social and pleasure bonding with each other. The enjoying and sightseeing in the garden, the older adults can gain their experience and also enhanced the sense of belonging to their nursing staff and local communities. By engaging and interacting with green spaces or garden on a daily base can garner their mental and physical health benefits. The benefits of physical and social have a significant influence on the elderly wellbeing and quality of life.

2. Problem Statement

Residing in nursing or retirement homes may cause the elderly stress due to social and physical pain, aloneness, isolation from other people and loss of independence and privacy (Levine, 2004). Numerous of elderly people in retirement homes be ill with from multifarious health problems. Dahlkviste et al. (2016) observe that get in touch with to immature outdoor surroundings may facilitate their psychological space, connect effortless mind and encourage resident health. The reason for poor in social and physical health, lot facts that supports nature base in their daily life can give effect and improve on their well-being. Ulrich (1999) mentioned stressed that nature-based create to strengthen the elderly stress-coping resources and address their emotional and social needs.

3. Research Questions

The research question as are the following: (i) why the garden is essential for the elderly? (ii) What the relationship and significance of the garden on the mental, physical and well-being of the elderly? And (iii) why green space need to provide at retirement homes? Therefore, the research objectives are:

- to identify the benefit of the garden to the elderly
- to examine the significance and relationship of garden on the mental, physical and well-being of the elderly.
- to analyse the influence of green space for retirement homes.

4. Purpose of the Study

This study aimed to examine the significant relationship and influences of the garden on the mental, physical and well-being of the elderly at retirement homes. The purpose of this study is to evaluate the current evidence-based on the elderly needs of the garden in retirement homes. Besides, to reveal the important and significant of garden to the elderly at Retirement Homes in Malaysia.

5. Research Methods

These studies focused on collected of the elderly well-being in the gardening perspectives. The research method based on four (4) criteria. The criteria were developed for the inclusion of literature in the systematic review: (i) the literature had to focus on the 20 studies - The literature was related with the benefit, relationship and influences of green space or garden for the older people at retirement homes, (ii) the mix-method study of quantitative and qualitative analyses, (iii) the was selected databases that established by Scopus and Science Direct and were written in English and (iv) the systematic literature review were published in scientific journals from 2000-2016. These methods performed the identifying, screening and assessed eligibility and extracted data. The review process including on search of critical terms and abstraction process. We used the following words in the keyword search which are: (i) in the first phase, the key phrases searched for general on the elderly OR older people, (ii) in the second phase, the research was limited to sources that comprised the first words plus combination with AND or OR - green OR garden OR gardening OR allotment and (iii) finally, the identifying was categorised among with the last list of crucial term search – Well-being OR health OR quality of life OR psychology OR physical OR social. The Scopus search resulted in 245 records. The similar queries on Science Direct searched, and it is found 167 files in total, and we impartial examined the first 50 relevant from all. Studies identified through Scopus and Science Direct screened on topic, title and 42 articles were assessed for eligibility process. (Refer to Figure 1)

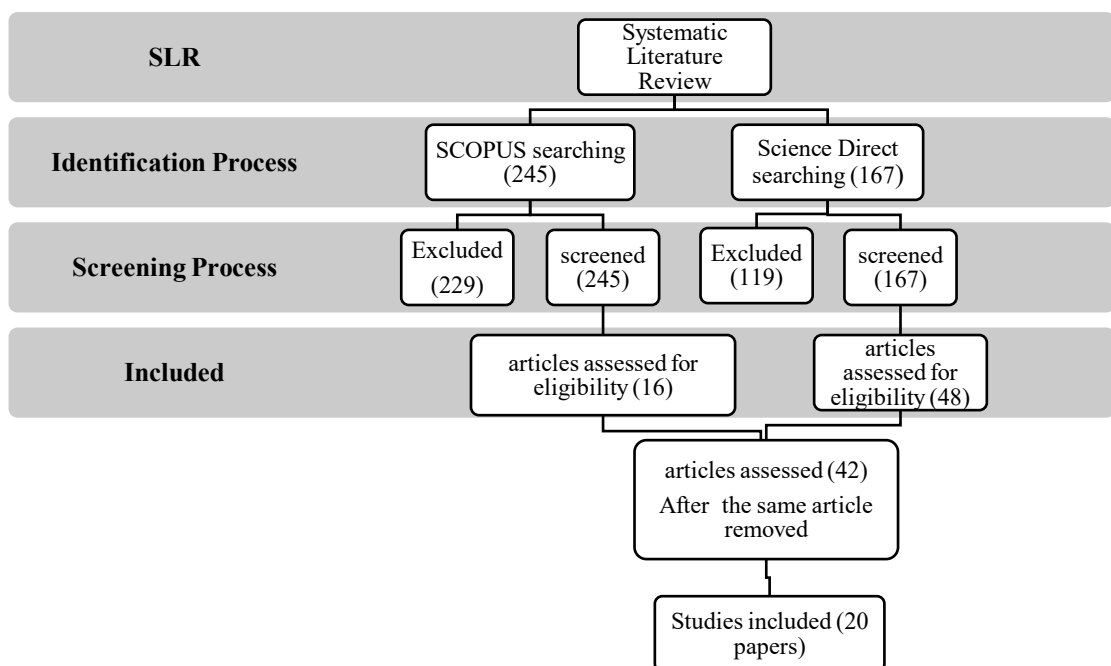


Figure 01. The process of SLR

The finally includes 20 articles (refer to Table 1). The study selection method revealed in Figure 1. The necessary information included for these researches, including the author's, year and detail information on the garden for the elderly, garden in Retirement Homes and garden for the elderly well-being.

Table 01. Characteristics of 20 case studies.

Study (authors and year)	Category & Characters (The elderly)	Green/ Gardening-Relationship & Influences	Health outcome
Artmann et al., (2017).	The elderly and nursing staff.	Gardens as a daily basis for the elderly.	Garden served for therapies and passive recreation.
Clatworthy, Hinds, & Camic, (2013).	The elderly and garden.	Engagement with the green and gardening.	Reduce the cost of the medicine of value-effective health to the elderly.
Davies, Fuller, Loram, Irvine, Sims, & Gaston, (2009).	Retirement Homes	Green and gardening.	Improved diet and nutrition, decreased blood pressure, and reduced weight gain.
Detweiler et al., (2012).	Connected with green and garden.	Gardening activities.	The therapeutic gardening activities have a positive impact on a sense of wellbeing, cognitive abilities, communication and engagement.
Eyler, Brownson, Bacak, & Housemann, (2003).	The elderly and garden.	Walking and outdoor activities.	Reduce health problems and increase self-strength
Gonzalez, Hartig, Patil, Martinsen, & Kirkevold, (2010).	They connected with green and garden.	Gardening activities.	Increasing an individual's life satisfaction, positive effects, vigour, psychological wellbeing, cognitive function and sense of community
Gonzalez, Hartig, Patil, Martinsen, & Kirkevold, (2011).	They connected with green and garden.	Gardening activities.	garden as a horticultural therapy for the elderly.
Hassan, & Jiaqi, (2017).	Retirement Village and garden.	Garden and healing.	Garden therapy.
Martins, & De Campos, (2019).	Garden component and design.	Garden and healing.	Horticultural therapy.
Md. Yassin, Masram, & Suet Khim, (2018).	Retirement Village and garden.	Garden and healing.	Garden therapy.
Mohammad., Mohd., Sh. (2016)	Young elderly: 60-74 years Old elderly: 74-84 years Most elderly: 85 years and above	Includes garden, courtyards, dining area, waiting room and more.	Wellbeing: emotional, social, spiritual, economic and health.
Othman, & Fadzil, (2015).	The elderly and garden.	The visual aids and green views.	Garden nature provides therapeutic physically and psychologically and promotes an inner sense of serenity and peacefulness.

Perryman, K. L., & Keller, (2009).	The elderly and garden.	Garden and creative art.	Flora therapy
Othman, & Fadzil, (2015).	Retirement Homes	Green and garden.	Social and emotional health.
Rappe, Kivelä, & Rita, (2006).	They are connected with green and garden.	The visual of the garden.	Give relaxation and reduce stress level and improve recovery to the elderly.
Stigsdotter, & Grahn, (2002).	Connected with green and garden.	Gardening activities.	Horticultural therapy.
Wen, Albert, & Von, (2018)	Garden component and design.	Improving the elderly well-being is through nature-based recreation such in the gardens	Garden can create social bonding and interaction: physical & emotional.
Wakefield, Yeudall, Taron, Reynolds, & Skinner, A. (2007).	Retirement Homes	Green and gardening.	Improved diet and nutrition, decreased blood pressure, and reduced weight gain.
Zhang, Chen, Sun, & Bao, (2013).	The elderly and urban parks.	Walking and outdoor activities.	Green space can reduce health problems and increase self-strength.
Zhai & Baran, (2017).	The elderly and urban parks.	Design characteristic can promote walking activities.	Promote physical activities among the elderly.

6. Findings

The summarize of 20 studies presented in Table 01. This research revealed that gardening most relevant to the elderly at Retirement Homes. To care for the elderly, various requirements need to be prepared to the best physical, mental, health, and social performance. Group of elders or senior's citizen tend to spend most of their times with activities which are leisure and quiet (Mohammad, Dom & Ahmad, 2016). Wen, Albert and Von (2018) found that the characters posed for the elderly's garden at Retirement Homes should be concerned with legibility, accessibility, safety, or quality of trails. The participation of the elderly in gardening activities give significant and influence positive impacts on their health. Directly in touch with natural environments such as green garden at outdoor (Retirement Homes) offers wide ranges of health benefits. According to Othman, Ridzwan and Fadzil (2015), garden and gardening benefits to the elderly was related to socials and emotional healths. It also supported by Davies, Fuller, Loram, Irvine, Sims and Gaston (2009) and Wakefield, Yeudall, Taron, Reynolds and Skinner (2007) that proved gardening activities to have positive health for the elderly by improved their diets and nutrition's quality, decreased blood pressure, more exceptional physical activities such as walking, viewing and gardening. It also reduced their weight gain. Hence, daily contact with nature and green environments have a long-lasting and profound impact on elderly health and well-being. Martins and De Campos (2019) said that gardens at Retirement Homes entirely depending on the theories in fashion and had several purposes either on the activity, which in most cases is horticultural therapy that experiences the garden seclusion, security, sunlight, fragrant, beauty, and history. Besides, these general typologies of garden therapy concept in retirement gardens, Hassan and Jiaqi (2017) has introduced a Model of Retirement Villages into two types; (i) Continuing Care Retirement Community (CCRC), and (ii) Village Model. Consequently, the

understanding needs of the elderly are sufficient in composing a significant and successful garden design for Retirement Homes for future development.

7. Conclusion

A well- designed and planning of garden spaces for the elderly at Retirement Homes was essential and significant. Garden is a place for socializing and creates engagement among them, together with built up their positive and emotional physical health. All the activities may reflect in their sense of belonging towards its surrounding and also encouraged them more physically active. The systematic reviews by 20 publishers or articles, revealed that the better life of the elderly supported by nature and green environment. Thus, a better understanding and guides of garden needs should be given into consideration as an outdoor space for the elderly at Health Care Facilities or Retirement Homes. This research finding may contribute to future research in planning and policies makers, landscape architect or professionals that involved in the design and management of healthcare facilities for the elderly.

Acknowledgments

This study was supported by Fundamental Research Grant Scheme (FRGS) funding by Malaysian of Ministry of Higher Education.

References

- Artmann, M., Chen, X., Iojă, C., Hof, A., Onose, D., Ponizy, L.,... & Breuste, J. (2017). The role of urban green spaces in care facilities for older adults across European cities. *Urban Forestry and Urban Greening*, 27(August), 203–213. <https://doi.org/10.1016/j.ufug.2017.08.007>
- Clatworthy, J., Hinds, J., & Camic, P. M. (2013). Gardening as a mental health intervention: A review. *Mental Health Review Journal*, 18(4), 214–225. <https://doi.org/10.1108/MHRJ-02-2013-0007>
- Dahlan, A., Nicol, M., & Maciver, D. (2010). Elements of life satisfaction amongst elderly people living in institutions in Malaysia: A mixed methodology approach. *Hong Kong Journal of Occupational Therapy*, 20(2), 71–79. [http://dx.doi.org/10.1016/S1569-1861\(11\)70006-7](http://dx.doi.org/10.1016/S1569-1861(11)70006-7)
- Dahlkviste, E., Hartig, T., Nilsson, A., Högberg, H., Skovdahl, K., & Engström, M. (2016). Garden greenery and the health of older people in residential care facilities: a multi-level cross-sectional study. *Journal of Advanced Nursing*, 72(9), 2065–2076. <https://doi.org/10.1111/jan.12968>
- Davies, Z. G., Fuller, R. A., Loram, A., Irvine, K. N., Sims, V., & Gaston, K. J. (2009). A national scale inventory of resource provision for biodiversity within domestic gardens. *Biological Conservation*, 142(4), 761–771. <https://doi.org/10.1016/j.biocon.2008.12.016>
- Detweiler, M. B., Sharma, T., Detweiler, J. G., Murphy, P. F., Lane, S., Carman, J.,... & Kim, K. Y. (2012). Retrieved from Detweiler-2012-What is the evidence.pdf
- Eyler, A. A., Brownson, R. C., Bacak, S. J., & Housemann, R. A. (2003). The epidemiology of walking for physical activity in the United States. *Medicine and Science in Sports and Exercise*, 35(9), 1529–1536. <https://doi.org/10.1249/01>
- Gonzalez, M. T., Hartig, T., Patil, G. G., Martinsen, E. W., & Kirkevold, M. (2010). Therapeutic horticulture in clinical depression: A prospective study of active components. *Journal of Advanced Nursing*, 66(9), 2002–2013. <https://doi.org/10.1111/j.1365-2648.2010.05383.x>
- Gonzalez, M. T., Hartig, T., Patil, G. G., Martinsen, E. W., & Kirkevold, M. (2011). A prospective study of existential issues in therapeutic horticulture for clinical depression. *Issues in Mental Health Nursing*, 32(1), 73–81. <https://doi.org/10.3109/01612840.2010.528168>

- Hassan, N., & Jiaqi, T. (2017). Preference for purpose-built retirement neighbourhood among the Chinese elderly in small towns in Malaysia. *Planning Malaysia*, 15(3), 179–192. https://doi.org/10.21837/pm_journal.v15.i3.308
- Imrie, R. (2003). Housing quality and the provision of accessible homes. *Housing Studies*, 18(3), 387–408. <https://doi.org/10.1080/02673030304240>
- Levine, R. (2004). Ageing with attitude: growing older with dignity and vitality. *Choice Reviews Online*, 42(04), 42-2500-42–2500. <https://doi.org/10.5860/choice.42-2500>
- Martins, A. M. T., & De Campos, I. D. (2019). From the Horizontal Garden to the Vertical Garden: An Architectural and Environmental Perspective of the "green" Element. *IOP Conference Series: Materials Science and Engineering*, 471(7). <https://doi.org/10.1088/1757-899X/471/7/072022>
- Md. Yassin, A., Masram, H., & Suet Khim, O. (2018). Potential Development of Retirement Village in Malaysia. *International Journal of Property Sciences*, 8(1), 40–51. <https://doi.org/10.22452/ijps.vol8no1.4>
- Mohammad, S. A., Dom, M. M., & Ahmad, S. S. (2016). Inclusion of Social Realm within Elderly Facilities to Promote their Wellbeing. *Procedia - Social and Behavioral Sciences*, 234, 114–124. <https://doi.org/10.1016/j.sbspro.2016.10.226>
- Othman, A. R., & Fadzil, F. (2015). Influence of Outdoor Space to the Elderly Wellbeing in a Typical Care Centre. *Procedia - Social and Behavioral Sciences*, 170, 320–329. <https://doi.org/10.1016/j.sbspro.2015.01.042>
- Perryman, K. L., & Keller, E. A. (2009). Floratherapy as a creative arts intervention with women in a retirement home. *Journal of Creativity in Mental Health*, 4(4), 334–342.
- Rappe, E., Kivelä, S. L., & Rita, H. (2006). Visiting outdoor green environments positively impacts self-rated health among older people in long-term care. *Hort. Technology*, 16(1), 55–59.
- Stigsdotter, U., & Grahn, P. (2002). What makes a garden a healing garden? *Journal of Therapeutic Horticulture*, 13(2), 60–69.
- Ulrich, R. (1999). "Effects of gardens on health outcomes: theory and research." *Healing gardens*: 27–86.
- Wakefield, S., Yeudall, F., Taron, C., Reynolds, J., & Skinner, A. (2007). Growing urban health: Community gardening in South-East, Toronto. *Health Promotion International*, 22(2), 92–101. <https://doi.org/10.1093/heapro/dam001>
- Wen, C., Albert, C., & Von Haaren, C. (2018). The elderly in green spaces: Exploring requirements and preferences concerning nature-based recreation. *Sustainable Cities and Society*, 38(July 2017), 582–593. <https://doi.org/10.1016/j.scs.2018.01.023>
- Zhai, Y., & Baran, P. K. (2017). Urban park pathway design characteristics and senior walking behaviour. *Urban Forestry and Urban Greening*, 21, 60–73. <https://doi.org/10.1016/j.ufug.2016.10.012>
- Zhang, H., Chen, B., Sun, Z., & Bao, Z. (2013). Landscape perception and recreation need in urban green space in Fuyang, Hangzhou, China. *Urban Forestry and Urban Greening*, 12(1), 44–52. <https://doi.org/10.1016/j.ufug.2012.11.001>