Evaluation of architecture of aged-care facilities

How effective are current approaches to the architectural design of aged-care facilities? What steps could be taken to improve the sustainability of these facilities? Focus on examples from developed countries.

In recent times, the number of ageing problems has drastically increased compared to the previous years. The government strives to solve this problem by building more aged-care facilities and by providing ageing subsidies. As a result, more countries can focus on the architectural design of aged-care facilities in order to provide a homely environmental for the ageing. This essay will discuss the pros and cons as well as the areas of the current approaches to improve the architectural design of aged-care facilities. It will suggest the steps to be taken to improve sustainability by using alternative energy and changing the materials of glass in the facilities.

There are a number of advantages of current approaches to the architectural design of the aged-care facilities. One of the advantages of the aged-care facilities is the wide corridor. For example, in the Salem nursing home facility in Gentofte, Denmark, the spacious corridors are located on the outside of apartments, which can be enough to accommodate occasional furniture (Anderzhon, Wijnties, & Hughes, 2012). Moreover, another advantage of the aged-care facilities is the large glazed window which acts as a wall (Anderzhon et al., 2012). For example, in the Salem nursing home is the third level of the building, it has a common area beside the huge window and glazed area to allow the natural light to irradiate into the internal area throughout the year (Anderzhon et al., 2012). However, during the winter periods, the little natural light which irradiates from the glazed window can lower the lighting levels and lower negative impact towards the elderly

people as it protects their eyes better (Anderzhon et al., 2012). The architectural design in some areas with lower ceiling heights and lower light levels would deliver a more calm and relax feeling to the residents (Anderzhon et al., 2012). Thus, natural light and lower light levels are the two main pros in the current approaches to the architectural design of aged-care facilities.

On the other hand, there are also disadvantages of the architectural design of aged-care facilities. The first disadvantage is the lack of home-like environment in the nursing home. For example, in Tupelo of the United States, the elderly people do not like being in an institution (Verbeek, Zwakhalen, Rossum, Kempen, & Hamers, 2012). However, the reality is that most aged-care facilities have over 400 to 600 beds filled with numerous professional caregivers (Verbeek et al., 2012). It is essential to break down the traditional large nursing home complexes into small home-like settings consisting of only 8 to 10 bedrooms with a common living room and dining room, staffed by 24-hours dedicated caregivers (Verbeek et al., 2012). In addition, the other disadvantage is the lack of privacy and dignity provided to the elderly in the nursing home. For instance, in Australia, most rooms in the nursing homes are open plans with only one bed by the window while the other by the bathroom and no dividing walls to separate the two residents (Walker & Paliadelis 2016). Hence, most residents do not feel comfortable but instead, they feel embarrassed by their lack of independence and their disabilities (Walker & Paliadelis 2016). Furthermore, most of the bathrooms are also too small to fit the wheelchairs (Walker & Paliadelis 2016).

Therefore, the lack of home-like and lack of privacy and dignity are big problems in the nursing home.

The building structure, physical setting and facilities of the aged-care facilities are extremely important and should not be overlooked. For example, the Sir Montefiore Home Randwick which is situated in Sydney, Australia is an extremely organized and well-designed five stories nursing home, composed of the main entrance and service area which are both located on the ground floor (Anderzhon et al., 2012). The third floor is a place which can be allocated for the assisted living and specific high care unit while the fourth floor is an area for aged-skilled nursing staffs and the fifth floor is allocated for the medical-based nursing (Anderzhon et al., 2012). Moreover, every level in the nursing home has 15 residents and 20 common rooms and there is natural sunlight entering each level (Anderzhon et al., 2012). Another architectural design of the building is physical setting, in a current nursing home which provides a variety of public areas to let the elderly people interact with each other and improve their relationships (Steenwinkel, Casterlé, & Heylighen, 2017). In addition, most of the nursing homes significantly increase the size of the bedrooms, which can provide the elderly more personal, private and quiet spaces, allowing them to live more comfortably (Steenwinkel et al., 2017). Thus, the building structural and physical setting is important as it increases the convenience and can improve the connection of residents with each other.

Besides that, the actions which can be taken to improve the architectural design of aged-care facilities is to improve the sustainability of these facilities by changing the glass to double layer and by using alternative

energy sources such as solar energy, water and energy conservation. The architect can improve the design by changing the glazed window to the double layer glass window to reduce heat and decrease radiation (Anderzhon et al., 2012). As a result, this also helps to improve the solar energy, water and energy conservation into sustainability energy, which can rely on natural sunlight to produce solar energy (Anderzhon et al., 2012). In summer, the solar panel can change the sunlight heat to energy sources, enabling nursing home departments to save more money by paying less electricity fees (Anderzhon et al., 2012). On the other hand, water conservation is storing the rainwater in an underground retention tank to use it for garden-like watering flowers and wash the floor which can decrease the water usage and save more money (Fay, Fleming, & Robinson, 2010). The architect design can also improve the energy conservation to bring more natural ventilation solution into the building. For example, open patios, garden, or balconies allow natural breezes to flow in from the botany bay to the north and allow the ventilation to enter the building (Anderzhon et al., 2012). It can reduce the use and reliance on air conditions and greenhouse gases to protect our environment, can cause the electricity usage to be lower because the lighting and temperature can controlled with motion like sensor-controlled lighting and low-energy fitting (Anderzhon et al., 2012). Although this might take a long time to design and apply but in the long term the alternative energy sources and double layer window can protect the environment and increase efficiency.

In conclusion, the current approach to the architectural design of the aged-care facilities has brought pros and cons, discussed the areas and facilities of

the aged-care which can be improved on for higher sustainability of these facilities. As a result, these advancements would not only benefit the residents but would also benefit the department as it allows residents to enjoy natural sunlight while also saving electricity cost by using solar energy as an alternative energy. Overall, by improving the architectural design of elderly living facilities, it can help to enhance the quality of life as well as encourage and free the elderly from depressing situations. Lastly, an improved architectural design can make a huge difference in the lives of the elderly occupants and bring joy to the ending stages of their lives.

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