

**Assisted Living Facility Design**

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In an industry like that of long-term care and assisted living facilities, interior design plays a pivotal role in promoting well-being, safety, and quality of life for residents. As the aging population in the United States grows, the demand for elderly housing rises with a greater emphasis on aging in place. Elderly housing must be able to accommodate diverse healthcare needs for those with varying levels of disabilities and impairments while also promoting a sense of comfort and home. With the difficulty of transitioning from living at home to living in long-term care facilities, it is crucial to foster an environment of comfort, safety, and autonomy. This research paper delves into possible design solutions for common disabilities found in assisted living facilities, focusing on three critical aspects: ambulatory care, diminished vision care, and memory care.

To begin research on this subject, it is important to understand the population's growing desire to age in place. The goal of aging in place is to enable older adults to remain independent in their homes for as long as possible. Relocation during old age can be taxing both mentally and physically, so aging in place can be a good alternative to long-term care facilities. However, that transition into high-level care is sometimes unavoidable. Elderly adults often have ambulatory issues, dementia and other cognitive disabilities, or intense vision impairments that no longer allow them to function independently. It is the responsibility of designers to maximize the quality of life for disabled residents and promote well-being with as much independence as possible while residents are in a stage of life that forces them to rely heavily on others.

### **Ambulatory Care**

One of the most prevalent reasons that older individuals move to assisted living facilities is mobility limitations. This can be a myriad of ambulatory issues such as confinement to a

wheelchair or frequent trips and falls. When transitioning these people into an assisted living facility, designers need to consider their needs to allow them to function as autonomously as possible. Design solutions for wheelchair users could consist of hard floors to allow wheels to roll smoothly, large spaces with limited obstacles, grab bars in bathrooms, and furnishings with reduced heights to allow wheelchair users to perform tasks independently. However, nonwheelchair users also need to be considered in design decisions.

Many residents have a greater fall risk due to frailty and distorted balance. Research studies have shown that floors with high shock absorbency are the most ideal for these residents as they decrease the risk of falling-induced injuries. *Falls in Older Adults: A Systematic Review of Literature on Interior-Scale Elements of the Built Environment* discusses ideal flooring in these facilities where they “compared compliant flooring (carpet and pad) with the firm surface...They found that older adults did not have significant difficulty, in terms of balance, on the compliant flooring and suggested that architects and designers specify similar carpet in residential and healthcare spaces.”<sup>1</sup> One possible design solution to accommodate a broad spectrum of mobility is to create corridors with varied materials. For example, one corridor could be designated for wheelchair users and employ hard flooring for ease of pushing wheelchairs (see Figure 1), and one corridor can be installed with shock-absorbent flooring to cushion falls (see Figure 2).

### **Diminished Vision Care**

Another group that needs to be considered in the flooring choice at these facilities is the residents with vision loss. The flooring’s pattern and color play a significant role in guiding and stabilizing elderly residents. Research shows that “carpeting with high contrast patterns and

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<sup>1</sup> Valipoor, S., Pati, D., Kazem-Zadeh, M., Mihandoust, S., & Mohammadigorji, S. (2020). *Falls in Older Adults: A Systematic Review of Literature on Interior-Scale Elements of the Built Environment*. *Journal of Aging and Environment*, 34(4), 363. <https://doi.org/10.1080/02763893.2019.1683672>

larger motifs was associated with more balance-related incidents (e.g., stumbles), reaching for handrails, veering, purposeful stepping, pausing, and stopping.”<sup>2</sup> Therefore, designers need to select carpeting with solid colors and less contrasting values. The motifs and patterns on the selected carpet should not hinder the steps of those with diminished vision (see Figure 3). Additionally, proper lighting is critical for assisting in navigation (see Figure 4). Flooring is an important design decision as it can impact physical mobility and eyesight, but it can also impact mental health in assisted living facilities.

### Memory Care

Residents with cognitive and memory impairments often struggle with the transition into long-term care facilities. This transition is often made worse by the commercial, institutionalized look that these buildings often present. Design choices such as flooring and furnishings can play a large part in easing the minds of these residents by creating a homey environment. Research also shows that it is often helpful to include the elderly in such design decisions. This is especially crucial to employ for people with dementia (PWD). *The Role of Interior Design in Promoting a Sense of Home in People with Dementia Living in Care Facilities* provides input on this concept: “The features of the homelike care environment have been shown to reduce PWD relocation anxiety, assist with daily activities, increase social interaction, and improve well-being...This concept encourages treating PWD as individuals with distinct identities as well as respecting their personal choices and autonomy.”<sup>3</sup> Again, the focus here is on maintaining independence throughout the assisted living experience. It is the responsibility of designers to take care of elderly residents through their design decisions. The study *Testing of Path-Based*

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<sup>2</sup> Valipoor, S., Pati, D., Kazem-Zadeh, M., Mihandoust, S., & Mohammadigorji, S. (2020). *Falls in Older Adults: A Systematic Review of Literature on Interior-Scale Elements of the Built Environment*. 364.

<sup>3</sup> Chen, J. (2023). The Role of Interior Design in Promoting a Sense of Home in People with Dementia Living in Care Facilities. *The Design Journal*, 26(3), 483–484. <https://doi.org/10.1080/14606925.2022.2144527>

*Visual Cues on Patterned Carpet to Assist Older Adults' Gait in a Continuing Care Retirement Community* describes this process: "Collaboration between interior and lighting designers with gerontologists who specialize in cognitive science can help inform ways to balance the myriad environmental stimuli from flooring, wall coverings and hangings, natural lighting, changes in scale, and other various design features, in a manner that produces a well-lit, stimulating and safe designed environment without producing cognitive overload."<sup>4</sup> Designers must often collaborate with other professionals to produce successful designs that benefit the elderly.

### **A Biblical Conclusion**

Christian designers have all the more responsibility in this effort. 1 Timothy 5 addresses the responsibility of younger generations to take care of older generations. One verse that specifically demonstrates this is 1 Timothy 5:1 where it says, "Do not rebuke an older man but encourage him as you would a father, younger men as brothers."<sup>5</sup> There are many sections throughout the Bible that encourage loving kindness and respect such as this, so it is clear that the Bible places high value on the elderly. Therefore, designers should take up their responsibility of assisting the elderly with their God-given creative talents.

### **References**

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<sup>4</sup> Lu, X., Luo, Y., Hu, B., Park, N.-K., & Ahrentzen, S. (2021). *Testing of Path-Based Visual Cues on Patterned Carpet to Assist Older Adults' Gait in a Continuing Care Retirement Community*. *Experimental Gerontology*, 149. <https://doi.org/10.1016/j.exger.2021.111307>

<sup>5</sup> ESV Study Bible. (2008). Crossway Books.

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## Appendix

**Figure 1**



Hard flooring for ease of pushing wheelchairs.

**Figure 2**



Carpet with low pile to reduce tripping but shock-absorbing carpet padding underneath.

**Figure 3**



Proper solid color carpeting is ideal for diminished vision compared to high contrast carpet, and large motif patterns that can cause confusion and imbalance.

**Figure 4**



Proper lighting with both natural and artificial light for those with diminished vision.