

Housing for the Aging

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As the overall age of the population gets older, there comes the difficult conversation about how to best care for this generation. There are a variety of options that fall under the phrase “Long Term Care”, but which one is going to be most cost efficient and effective? It is essential that one understands that aging looks different depending on the individual. Moreover, the proper way to tend to these older persons will adapt, in the same way that design selections will differ to best suit the diverse needs at hand. According to Victor Reigner, author of *Housing Design for an Increasingly Older Population*, approximately 73% of adults agree with the idea that most persons over the age of 45 would like to remain living at home (Regnier, 2018). Furthermore, to simply age in place, rather than relocating to any specifically designed housing or facility. With that said, there are certain circumstances that do not allow an individual to live alone or to continue living in their home. Memory, mobility, and vision impairment can all affect the way one lives their life. In the same way, these diminishing abilities influence the overall design of spaces. Much of the “current health system focuses on acute care and is less prepared to deal with chronic disease” (Regnier, 2018, p. xxx). Therefore, it is imperative that design is intentional and allows for persons to receive better treatment for their conditions and circumstances. Designers must aim to give the elderly the best experience and most comfortability wherever they settle and no matter the ability.

Memory Care

Reigner states that those who suffer from memory impairment are some of the most challenging individuals to house and to care for (Regnier, 2018). Dementia is described as the decline in memory, language, and problem-solving skills. Due to these symptoms, one’s behavior can be a little unpredictable. At times, individuals that experience this will forget their

family members or care givers. What is necessary to design a memory care facility will differ from other housing for distinct conditions. As a result of the heavy reliance on familiarity and predictability, it is important that the elderly dealing with memory loss must be in an area that has the specific demographic. If precisely placed in an area that has a group of people of who might be needing a memory care facility, those persons can remain close to spouses and relatives. When one takes a closer look into the design of the facility, there are different furnishings, finishes, and materials that should be used to best suit the occupants of the space. A study was done, that examines the “relationships between physical environments and behaviors of residents with dementia in a retrofit Special Care Unit” (Mobley et al., 2017, para. 1). From the study, it was found that certain physical attributes of the facility contributed positively to the patient’s experience.

One of the first ideas mentioned in the study was the importance of creating a homely space (Mobley et al., 2017). To elaborate, it was deduced that a facility that focuses on residential design versus a commercial look was beneficial for residents. Moreover, it was shown that a residential design led to “reduced social withdrawal, greater independence, improved sleep, increased family visits” (Mobley et al., 2017, para. 8). Of those diagnosed with dementia or some other memory altering condition, most of the individuals are above the age of 75 (Regnier, 2018). With that said, the importance of ease of use and comfortability becomes even greater with age regarding the furniture. As persons age, the amount of fat and muscle in the body decreases; indicating, pieces of furniture need to be well cushioned. In addition, it would be beneficial for the furniture to be architectural unique, so spaces can be differentiated from each other, as well as personal rooms and common rooms. Making residents of memory care facilities comfortable is crucial.

The overall layout of the space should be constructed in a way that is in either L, H, or square shape (Mobley et al., 2017, para. 8). As said in the study, this building orientation allows for better spatial recognition and allows for one to easily navigate through than say, a straight vestibule. The interior design of the housing should allow for differentiation between private and public sectors of the building. With that said, the public spaces should be open concept, permitting the seniors to see where activities occur. Additionally, egress locations should be positioned adjacent to the hallways, instead of at the end. By arranging the doors in this way, it discourages exiting. Further, it helps if these doors are camouflaged to a degree as to not draw attention to them. If the residents do not see these forms of exiting, they are less likely to experience depression. Along with the positioning of the exits, even elevators should be stationed outside of resident's everyday walking path to decrease anxiety. Flooring selections should not have a lot of contrast or use of pattern as to not agitate, confuse, or frustrate the elderly. Adjustable lighting and intentional light exposure can help resident's circadian rhythm and sleep patterns. This is crucial for those who react negatively to sun setting. On another note, the overall layout of the building should allow for some indoor-outdoor living. Giving residents the option to do activities or relax outside is vital. The fresh air and nature sounds are very calming (Regnier, 2018, p. 73). Finally, it is even beneficial to participate in group exercise in those areas as well.

From the case study and observations at various long term care housing, it was deduced that cluster groups work best for those with dementia (Regnier, 2018, p. 73). Residents live with between 10 and 12 other individuals with same needs. They will share programs and have communal living spaces. Knowing these are some common spaces, gives designers insight about what to expect in terms of furniture and function. This cluster ideology encourages relationships;

moreover, helps with depression and anxiety. With that said, the idea of clusters works well for many different extents. The layout of the common space should ideally be an open concept. However, for living areas, furniture should be arranged in ways that makes the function of the space obvious and allows for a small assembly of people (Mobley et al., 2017). Kitchen dining should also be more residential and intentional. Dining tables that seat fewer people are better, as opposed to long cafeteria style tables. The kitchen itself should be in a layout that reinforces interactions among residents and supports connections. It is helpful to have glass cupboards in the kitchen; this subtle design allows for more effortless use of the space. Furthermore, this type of intentionality can be used in other capacities.

Much of what makes successful memory care housing is the emphasis on independence and setting up individuals to go through their daily life without needing a lot of assistance. As mentioned above, familiarity and predictability are significant components and because of these, the overall room design could be a little larger than another room in a long-term care facility (Regnier, 2018). Likewise, space for personal furniture, pieces, or items are valuable for the mental health and comfortability of those suffering with dementia. Being able to have sentimental furnishings provides a sense of security. Those who help care for those experiencing cognitive decline find it useful to the residents to have specific pieces that clearly show their use and allow the elderly to display personal items. The continuous allocation for presentation of intimate belongings creates a calming environment and strengthens ability to be independent.

Ambulatory Care

Ambulatory care involves assisting a person who needs assistance with their mobility (V. Regnier, 2018). Some with this sort of need might be in wheelchairs or rather an ailment that does not allow one to move as well as they could. Troubles with mobility could be caused from a

condition, or simply due to old age. As mentioned previously it is known that a person's muscle mass decreases with age, making movement more challenging and uncomfortable. Moreover, when persons cannot travel, reposition, step, etc. easily, or by themselves, it makes it more difficult to preserve one's independence. With that said, it is already known that even with these challenges, that the elderly does not want to relocate. However, whether in one's home or at an assisted living facility there are many design choices that will permit greater movement and accessibility to do whatever the individual desires.

Universal Design is a great option for ambulatory care because according to "architect Ron Mace at The Center for Universal Design at North Carolina State University", Universal Design is "design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" (Beamish, 2017, para. 5). Therefore, no matter the degree of mobility, the home or facility would be functional for all individuals. The Americans Disability Act sets the standards for Accessible design, which "reflect the needs of people who use wheelchairs or have mobility limitations" (Kent, 2017, p. 282-283) Looking at both forms of this design, one can deduce what is unique about designing for this particular demographic. When providing care for those with some degree of immobility, everything is easy to get to without requiring a lot of energy or reaching; this includes appliances, counter tops, commonly used drawers, etc. (Beamish, 2017). These selections would have specific features such as cabinet pulls, French doors, or some automated feature to make access simpler. The use of technology in these homes like touch mechanisms and monitoring features make tasks much easier for residents. In addition, much of the technology can be built into the infrastructure, relieving the responsibility of having to learn the system fully. In distinct locations around the facility or in the home, there are specified clearance areas. These areas

allow for someone who might be in a wheelchair to remain sitting to complete tasks. Doors are going to be wider to accommodate wheelchairs and the clearance on either side will be sizeable for the individual to successfully maneuver without issues. One might see these clearance zones in front of a sink or appliance. Furthermore, the overall heights of counters and cabinetry might differ from their usual placement levels to be more reachable for individuals. For example, the upper cabinets could be placed directly on top of the base cabinets. Another key design feature added for someone with limited mobility is grab bars. Typically, the grab bars will be placed in the shower, by the toilet, or by the bathtub. What makes grab bars so important in the bathroom are the potentially wet floors. Floors for ambulatory care should be smooth and easy to clean; with that said, they can also be slippery at times, so it is vital to have those grab bars for security. Designing a space that has the standard coefficient of friction is optimal for this design need, to reduce falling. Designers want to avoid changing floor levels or adding furnishings that are going to pose tripping hazards (Cae, 2019). The furniture should be comfortable and accommodate individuals for long periods of use. Additionally, these pieces of furniture should allow for one to access them by wheelchair easily and must be in direct path with an exit. There are so many more parts and aspects to designing a facility for ambulatory care that are worth looking into. It is important that these persons staying in these facilities and homes are taken well care of and can experience a high quality of life.

Diminished Vision Care

It is well known that as one ages, their eyesight begins to get worse. This typically starts to occur after the age of 40 and seven of ten individuals will need to get glasses or contacts at some point in their lives (Regnier, 2018, p. 14). This diminished vision could mean trouble seeing objects in general, trouble with different distances, trouble seeing colors, and trouble

focusing. There are many diseases that can affect one's vision, but what does this mean for design and living accommodations? Those with visual impairments have more "difficulty walking as well as preparing meals and managing medication" (Regnier, 2018, p. 14). Moreover, there are certain tasks that become harder as one's sight abilities decrease. One of the biggest problems one faces with diminished vision is glaring. This could occur in a variety of places, but designers want to eliminate that problem in the home. Therefore, it is recommended by Victor Regnier that glare is reduced by including, "indirect fixtures or pendant lighting that block a direct view of the lighting source" (Regnier, 2018, p. 14). By using these specified fixtures, falling or imbalance will be less likely to occur. As a person's vision becomes worse, colors tend to blend with each other and are harder to distinguish. Therefore, by using colors of more contrast, the aesthetic and design of the room will be more obvious. More importantly wayfinding will be easier within the space. Text on signage should also be very simple so that it is easy to read. There should be no confusion about where anything is because it will be clearly and effectively marked. Something to note is that braille should also be used in the case that a resident has a severe case of diminished vision. Incorporating that into the design will be very helpful as the age of the population in the care facility increases. Lighting will also be crucial for diminished vision housing. Victor Regnier tells that, "the 60-year-old eye needs twice as much light to see as well as a younger adult and for those over 80 three times the amount of light is necessary" (Regnier, 2018, pg. 14). This quote expresses the importance of making sure the entire space is well lit and that proper fixtures are selected throughout the whole building.

Conclusion

There are a lot of factors to consider when designing a space for a variety of individuals. It is common that not everyone will have the same needs, therefore it is imperative that a

designer creates a space that is multifunctional for a range necessities and requirements. From choosing flooring material, to the lettering in hallways, to the type of lighting, etc. Conscious and intentional decisions can be made to assist the elderly in having a high quality of life. In addition, can help provide a comfortable and functional living environment that focuses on maintaining one's independence for as long as possible. Leviticus 19:32 calls Christians to care for the aging and use it as an opportunity to honor Him (ESV, n.d.). It is not only a duty tasked to the family of the individual, but also to the designers of homes and facilities. Whether someone has a diminished memory, mobility, or vision, it is so important for people to know there are options available to them and design ideas that are ever developing to fit these very specific needs.

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