

## The effect of organic architecture approach on the design of nursing home

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### ABSTRACT

#### Research Problem:

The world, amid scientific advancements—particularly in medicine—is witnessing a growing elderly population. Estimates indicate that by 2030, the global elderly population will rise from 9% to 16%, while in Iran, it will increase from 5.6% to 17.5%. Concurrently, older adults experience declining physical and mental capacities, facing threats from various diseases and psychological challenges. With rising life expectancy and declining mortality rates, the global elderly population continues to expand. For some, aging leads to reduced cognition and functionality, potentially resulting in loss of independence. Unfortunately, in our country, due to complex societal issues, this demographic has not only been overlooked but also consistently neglected. While family-based care remains the ideal support system for the elderly, caregiving is not always straightforward. To address this, we must first emphasize the value and importance of the elderly in society and strive to create safe spaces where they can rest, reside, and freely express their emotions, interests, and concerns. Achieving successful aging requires redefining roles for the elderly, recognizing their worth, and empowering them with new responsibilities. Moreover, a supportive environment must be fostered to ensure their dynamic participation in society. Human life, as part of nature, follows a trajectory of birth, peak, and eventual decline. Old age refers to years nearing or exceeding the average human lifespan, and currently, the elderly population is growing in nearly all societies. Psychologists now assert that the vitality of one's surroundings profoundly impacts mental, emotional, and physical well-being. Thus, numerous factors contribute to human vitality and health, with the elderly being a critical group requiring attention. Aging is a sensitive life stage marked by diminished abilities and increased vulnerability to physical and psychological ailments. For instance, seniors with Alzheimer's may lose self-care capacity, placing emotional and logistical burdens on caregivers, who often struggle to maintain meaningful connections. Emotional bonds with the elderly are crucial, as prolonged isolation can lead to depression. Hence, providing a secure and satisfying environment for them is essential. In our religious and cultural context, the elderly hold a revered status, making their physical and spiritual well-being a priority. Entering old age involves significant bodily changes that limit physical capabilities, necessitating living spaces designed to accommodate these limitations. Post-retirement, many elderly individuals face depression due to feelings of uselessness or social exclusion, reducing their life expectancy. Aging is an inevitable phase for all living beings, including humans, and tailored housing solutions must address their unique needs. Activities like gardening and social engagement can mitigate these challenges, though caregivers often face psychological strain and difficulties in fostering emotional connections.

#### Research Question:

What factors contribute to vitality, happiness, longer life expectancy, and better quality of life in the elderly through nature?

#### Research Method:

This quantitative study aims to precisely elucidate key concepts. Data collection employed both library and field methods. The former involved reviewing books, scholarly articles, journals, and relevant documents, while the latter utilized questionnaires. The target population was elderly individuals. Using a descriptive-analytical approach, validated questionnaires were distributed and completed by participants. Data analysis was performed using SPSS-22, with a Cronbach's alpha coefficient of 0.821, indicating high validity and reliability. The Kolmogorov-Smirnov test assessed data normality, while the Friedman test analyzed research factors. The study population included residents of two nursing homes: "Mother" (female seniors,  $n = 70$ ) and "Father" (male seniors,  $n = 83$ ). Convenience sampling was initially applied, followed by simple random sampling (via a random number table) to select 120 participants (55 women, 65 men). The research analyzed factors influencing vitality, happiness, life expectancy, and quality of life among the elderly through nature-based interventions.

**The Most Important Results and Conclusion:**

The results indicate that the use of natural forms, proper lighting and ventilation, flexible spatial design, and effective connection with nature have a significant impact on the physical and mental health of the elderly. Incorporating green spaces and the thoughtful use of natural elements such as water, sunlight, trees, and birdsong can evoke a sense of vitality in older adults and bring them a sense of peace. Creating outdoor areas such as gardens, yards, pools, and greenhouses, and maximizing interaction between the elderly and nature not only promotes their mental and physical well-being but can also lead to self-employment opportunities. Establishing exhibitions to showcase the elderly's crafts and creations can enhance their self-esteem, eliminate feelings of ineffectiveness, and encourage physical activity. This in turn supports exercise and recreation, fosters social interaction, provides opportunities for leisure, and helps relieve depression and stress.

**KEYWORDS**

Elderly, Nursing Home design, Interaction, Naturalism, Vitality