

EDUCATING REAL ESTATE AGENTS ON THE UNIQUE HOUSING NEEDS OF  
GERIATRIC PATIENTS AND THEIR LEVELS OF CARE

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## Abstract

**Problem Statement:** There are not enough age-friendly houses and communities that promote the overall well-being and safety of elderly people. Knowledge sharing and educating real estate agents on aging in place by healthcare providers could effectively address the distinct housing needs of the geriatric population.

**Purpose:** To educate, increase awareness and confidence among real estate agents to address the housing needs and approach clients with senior housing requirements more effectively.

**Methods:** A presentation on the current data on the aging population in the world, United States, and Hawai'i and the increased demand for age-ready homes was developed and delivered for about 15-20 minutes among the participants.

**Results:** Increased in participants' (N=5) overall group mean scores for current knowledge and confidence levels were observed between pre- and post-surveys. Participants agreed that the presentation helped them increase their confidence. Participants recommended educating the other disciplines that have active roles in aging in place.

**Discussion:** The presentation on the distinct housing needs of geriatrics and level of care showed promising results for increasing current knowledge and confidence among real estate agents. However, the participants reported a concern that they should not be actively involved in disseminating the idea of aging in place. It would be acting against the client's interest in making housing decisions. A significant limitation of the project included the small number of participants and lack of sufficient studies. Hence, studies should be conducted in the future to know how real estate agents or other disciplines can impact aging in place.

## Table of Contents

Abstract.....	2
List of Tables.....	5
List of Figures.....	6
List of Abbreviations.....	7
Introduction.....	8
Background.....	11
Problem and Purpose Statement.....	12
PICOT Statement.....	13
Project Goals and Objectives.....	13
Conceptual Framework.....	14
Literature Search.....	14
Synthesis of Literature Evidence.....	15
Strengths and Weakness, and Literature Gaps.....	19
Methods.....	20
Project Design.....	20
Setting and Participants.....	20
Interventions.....	21
Data Collection.....	21
Analysis.....	22
Results.....	23
Discussion.....	25
Strengths and Limitations.....	26

DNP Essentials.....	27
Conclusion.....	27
References.....	29
Appendix.....	34

## List of Tables

Table 1 Mosby's Level of Evidence .....15

Table 2 Comparison of Pre-and Post-intervention Surveys results.....24

## List of Figures

Figure 1 pre-and post-intervention survey results.....	25
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## Lists of Abbreviations

AACN	American Association of Colleges of Nursing
AARP	American Association of Retired Persons
AHCA	American Health Care Association
CDC	Centers for Disease Control and Prevention
DNP	Doctor of Nursing Practice
IRB	International Review Board
NCLA	National Center for Assisted Living
RCT	Randomized controlled trial
WHO	World Health Organization

## Educating Real Estate Agents on the Unique Housing Needs of Geriatric Patients and Their Levels of Care

The world population is getting older, and the number of individuals in the age group of 60 years and older was one billion in 2019, and it is estimated to increase by 1.4 billion in 2030 and 2.1 billion in 2050 (World Health Organization [WHO], 2020). The aging trend is similar in the United States due to the baby boomer generation getting old, decreasing fertility rate, and increasing life expectancy (American Association of Retired Persons [AARP], 2021). It is projected that 1 in 5 Americans will be 65 and older by 2030 (Vespa, 2020). With advancing age, physical and cognitive limitations, pre-existing health conditions, and psychological and social well-being, age-friendly communities are the requirements for successful healthy aging. Depending on the physical functionality and healthcare needs, institutionalized housing options such as senior homes, long-term care facilities, and assisted living communities are some of the conventional housing options for older adults.

However, labor shortages, inflation, and persistent government underfunding have contributed to care crises within the nursing home sectors, and approximately 450,000 residents are at risk for displacement under the federal staffing mandate (American Health Care Association/ National Center for Assisted Living [AHCA/NCAL], 2023). The older adults population is increasing tremendously, and there is a shortage of staffing and insufficient long-term care homes, nursing homes, and assisted living facilities to support them. Generally, institutionalized homes are more expensive to live in compared to aging in place. Among all the institutionalized housing, nursing homes are the most expensive, followed by assisted living care and adult daycare services. The cost varies among different geographical locations and individual needs. Still, the average monthly price of a nursing home room for semi-private and



private rooms is \$7908 and \$9304, respectively (Businesswire.com, 2022). Similarly, the median cost of assisted living was \$4500, which was typically low compared to nursing homes, and the average home care services cost \$30 per hour in the United States, and it may vary with locations and the necessities (Erdewyk & Writer, 2023).

AARP (2021) conducted the Home and Community Preferences Survey, and the results showed that 77% of adults aged 50 and older desire to remain in their homes and communities as they age. In addition, 63% of adults across the lifespan have consistently expressed a desire to stay in their homes as they age, which has remained relatively consistent for over a decade (AARP, 2021; Ratyanke et al., 2021).

Aging in place means living in their homes or familiar community as an older adult instead of going to a nursing home or retirement housing (WHO, 2024). Aging in place has gained immense popularity due to significant benefits to older adults' physical, mental, social, and psychological health. The elderly population who decides to age in place has expressed feelings of a familiar environment and place, which has contributed to older adults' sense of identity, maintaining autonomy, independence, and the higher connectedness to the social network and community integration that has directly correlated with decreased feelings of loneliness (Ratnayake et al., 2022). In addition, aging in place is cost-effective, and it can prevent hospital-associated infections and their expenses because a significant number of healthcare-associated infections occur in long-term care facilities. Aging in place also reflects the core 5Ms framework from geriatrics to achieve age-friendly healthcare (Kochar et al., 2022). The geriatric 5Ms conceptual model includes Mind, Mobility, Medications, Multi-Complexity, and Matter Most, and it is the guiding principle to provide comprehensive individualized care to the rapidly aging geriatric population (Kochar et al., 2022). Staying in a familiar environment and

connectedness to their communities and neighborhoods can potentially improve mind and memory and assist in identifying early, preventing, treating, and managing dementia, delirium, and depression among older adults (Kochar et al., 2022). Aging in place is the care preference of older adults that matters the most to them, and it is the accountability of the multidisciplinary professionals to work together as a team to provide care and look for resources in the community so the older population can age in their homes without challenges.

One of the biggest challenges of aging in place is home safety. A safe home environment is pertinent to prevent injuries and accidents for older adults (Mauritzson et al., 2023). Every year 1 in 4 elderly falls, more than 950,000 are hospitalized due to fall-related injuries, and more than 32,000 die due to an unintentional fall, which costs about \$50 billion in medical costs each year (Centers for Disease Control and Prevention [CDC], 2023; Moreland & Lee, 2021). In a study conducted in 2015, the typical fall-related emergency department visits were indoor visits, more specifically in a bedroom, on stairs, or in a bathroom, suggesting that older adults should be aware of fall hazards in their homes (Moreland & Lee, 2021). CDC provided a comprehensive home safety checklist to evaluate the risk inside the house for preventing falls. It requires clutter-free floors, stairways, non-slip backing rugs, hand railings in the walkways, accessible driveway, bedroom, kitchen, and bathroom, and the proper lighting in the living area (CDC, 2015).

Similarly, the other challenges of aging in place include the lack of transportation, access to health care providers and emergency medical services. Several factors influence the older population's housing needs and decisions and involve collaboration and knowledge exchange among healthcare professionals, housing agents, real estate agents and developers, policymakers, and relocation counselors (Roy et al., 2018). Considering the trend of current and future demand for senior housing needs with better accessibility and affordability, real estate agents should be

aware of the unique housing requirements of geriatrics that put individual safety first and promote elders' physical, social, and emotional health and independence. Therefore, educating real estate agents can potentially assist older adults with age-friendly housing decisions and ultimately save the medical expenses related to fall-related injuries and infections, Medicare and Medicaid costs in nursing care homes or long-term care, and can mitigate the housing and senior home crisis, and labor shortage in the healthcare industry.

### **Background**

Hawaii is the seventh leading state where 65 years of age and the older population reside, and it has the national highest life expectancy of 80.7 years (Wilson, 2023). The adult population is growing, and 65 years and older are expected to represent 23% of the Hawaiian population in 2030 (locationshawaii.com, 2023). In general, the cost of living in Hawaii is more expensive than in other states, as are the expenses of residential and institutional adult housing care. Similarly, the housing and care options for older adults living in Hawaii are expensive and limited. There are around 4,400 beds in nursing homes and 7,000 spaces in residential facilities, barely enough to meet the housing and care demand of older adults in Hawaii (locationshawaii.com, 2023). The cost of a nursing home is approximately 50% percent more than the other states, and in-home health care can also cost more than the national average (locationshawaii.com, 2023). The City and County of Honolulu joined the WHO Global Network of Age-Friendly Cities and AARP National's Network of Age-Friendly Communities in 2013, and an Age-Friendly Honolulu ordinance (Bill 54) was passed in 2018, which required and signified an affirmation by the City and County of Honolulu to be age-friendly (University of Hawaii Center on Aging, n.d.). Age-Friendly Honolulu, a project by the University of Hawaii Center on Aging, changes the thoughts on aging by empowering elderly, promoting

intergenerational participation, and supporting accessibility and inclusion for all (Hawaii Public Health Institute, 2024). Hence, aging in place with better planning and resources can be economical and promote healthy aging by engaging the adults in their communities.

Aging in place emphasizes safety and housing accommodations in terms of the layout or design of the living area that facilitates mobility and accessibility easier, as well as homes with handrails, widening doorways, lever handles for the doors to prevent falls and injuries, and accessible communities to avoid isolation and promote active live. It also considers quicker access to emergency medical help and health care providers for regular health check-ups. Real estate agents with knowledge about distinct housing features and the communities with access to emergency medical care, transportation, and healthcare providers can play a significant role in helping clients make an appropriate housing decision and planning for the aging in place for themselves, family members, and relatives. Hence, providing information to relators on senior housing needs and care, the desire of older adults to stay in their places, and the importance of safe and accessible communities can ultimately save avoidable medical expenses, lower the cost of Medicare and Medicaid expenses, and promote healthy aging addressing the physical, social, mental, and psychological aspects of older adults.

### **Problem and Purpose Statement**

The older population has increased significantly, but few age-friendly houses and communities exist. The physical and cognitive changes and the chronic and complex medical conditions may require different housing settings to promote the functioning and safety of adult populations. Many people desire to stay in their own homes. Aging in the place matters the most to older adults because it promotes autonomy, independence, and connectedness to the place and communities and contributes to the overall well-being (Carver et al., 2018; Hossen et al., 2023;

Ratnayake et al., 2022). However, aging in place requires meticulous planning and consideration. The purpose of this project was to educate real estate agents about the specific housing needs of older adults, increase their overall awareness of the growing geriatric population and the need for age-friendly housing, and improve their ability to approach buyers with senior housing requirements effectively.

### **PICOT**

Among real estate agents (P), does education about the unique housing needs of older adults (I) improve knowledge and confidence (O) to approach the home buyers looking for age-friendly homes compared to pre-education interventions (C)?

### **Project Goals and Objectives**

The project's goal was to increase real estate agents' knowledge and confidence about the unique housing needs of aging adults so that they could address prospective home buyers' growing concerns about age-friendly homes and communities.

- 1) Improved knowledge levels among real estate agents on the different housing requirements of older adults were measured by pre- and post-assessment questionnaires in March 2024. Data were analyzed with descriptive statistics.
- 2) Improved confidence levels among real estate agents in approaching buyers looking for age-friendly homes, measured by pre-and post-assessment tests in March 2024. Data were analyzed using descriptive statistics.

## **Conceptual Framework**

The Johns Hopkins Nursing Evidence-Based Practice Model served as the conceptual framework for this project. This model utilizes the problem-solving approach for clinical decision-making and has been an effective and powerful user-friendly tool to guide individual or group purposes (Johns Hopkins University & Medicine, 2024). It comprises a three-step process called PET: practice question, evidence, and translation (Johns Hopkins University & Medicine, 2024). The practice question step involves identifying the problem and evidence-based practice (EBP) questions; the second step which is evidence, consists of searching for evidence, summarizing the individual evidence, and developing the recommendations based on the findings and the last step of the model includes translation which focuses in determining feasibility, creating action plans, implementing the change, evaluating outcomes and disseminating the findings (Upstate Medical University, 2023). The Johns Hopkins Nursing Evidence-Based Practice Model promotes a culture of care based on evidence, and it is clinician-focused to allow the rapid and appropriate use of best practices and current research (Wyant, 2017).

## **Literature Search**

The literature search was conducted using PubMed and Google Scholar databases. The searched terms included “aging in place,” “residential housing,” “senior housing,” and “age-friendly housing,” and the search utilized Boolean operators such as “and” and “or” to include the vast articles. The inclusion criteria of the search were the research articles published between 2014 and 2024, free full- text written in English, and article types selected from clinical trials,

meta-analyses, randomized controlled trials (RCTs), systematic reviews, and literature reviews.

A total of 54 articles were included.

Mosby's Quality of Evidence was utilized to determine the evidence level of the selected articles (Ackley et al., 2008). Only 8 articles were considered after assessing the quality of the evidence level and its relevance to the challenges and successful aging in place. Table 1 shows the number of final articles (N=8) found in the literature search with the respective level of evidence.

Table 1  
*Levels of Evidence (Ackley et al., 2008)*

Mosby's Quality of Evidence	Number of articles selected (N=8)
Level I: Meta-analysis or systematic review	2
Level II: Experimental Design or randomized controlled trial (RCT)	1
Level III: Evidence obtained from well-designed controlled trials without randomization (i.e., Quasi-Experimental design)	1
Level IV: Evidence from well-designed case-control or cohort studies	1
Level V: Evidence from systematic reviews of descriptive and qualitative studies (Meta-synthesis)	3
Level VI: Evidence from a single descriptive or qualitative study	0
Level VII: Evidence from the authority opinion and/or expert committee reports	0

### Synthesis of Literature Evidence

**Preserving Independence and a positive sense of identity:** Aging in place allows daily familiarity by spending time in the home with pets or family members and surrounded by

physical objects representing cherished memories (Ratnayake et al., 2022). It often allows older adults to continue enjoying what they value on their terms, and they can still manage daily necessities such as grocery shopping and driving without asking for help or depending on a family member. Similar surroundings and competence to do the tasks they enjoy can enhance independence and maintain a positive sense of identity, which determines the quality of life among the older population (Ratnayake et al., 2022).

**Social Connectedness:** Social isolation and loneliness may result in poor health outcomes and death in older adults (Mehrabi & Beland, 2020). Aging in place avoids the emotional disruption of leaving home and community, so those aging in place often have an intense desire to stay active, have meaningful social interaction with others, and be involved in their community (Carver et al., 2018; Hossen et al., 2023; Ratnayake et al., 2022). The interpersonal interactions offer emotional assistance, a feeling of inclusion, allow participation in a communal gathering and active involvement in community services, which enhances the sense of connectedness to the community (Carver et al., 2018; Hossen et al., 2023; Ratnayake et al., 2022). Thus, social involvement plays a significant role in promoting mental and emotional well-being and may prevent isolation, loneliness, and stress and increase life satisfaction and quality of adult life (Carver et al., 2018; Hossen et al., 2023; Mauritzson et al., 2023; Ratnayake et al., 2022). Social participation is among the eight domains of the WHO age-friendly cities framework and it may enhance the sense of belonging in one's community and decrease the risk of isolation and loneliness (WHO, 2023).

**Cost-effective:** The older population number has been trending up swiftly globally. In the United States alone, it is estimated that 23.5% of the population will be over 65 years old,



which was 9% greater than 2014; however, there is no significant increase in the number of houses that are appropriate for older adults who have health conditions with co-morbidities and declined physical and cognitive functions (Carver et al., 2018). Additionally, senior or institutional housing costs are relatively higher than aging in place. Aging in place is the most popular among the general US population because it is cheaper than institutional adult homes with greater autonomy, a sense of belonging, and social connectedness (Carver et al., 2018; Ratnayake et al., 2022). The federal and state governments could save on expenses by not spending on long-term care facilities or nursing homes and treating common and easily acquired infections at senior living facilities (Carver et al., 2018; Ratnayake et al., 2022).

**Safety, Accessibility, and New Technology:** Despite the tremendous benefits of aging in place, the challenges must be addressed. Only 10 % of the houses are “aging ready,” with a step-free entryway, a bedroom, a bathroom on the first floor, and at least one bathroom with an accessibility feature in the United States (Vespa et al., 2020). Safety at home is a concern for the older population because falls and injuries that are not an inevitable part of aging can be prevented and save the hospital-related costs from falls and their complications by increasing the quality of life of older adults (Moreland et al., 2023; Ratnayake et al., 2022). Safety assessment, hazard removal, and home modifications can enable individuals to age in place safely (Hossen et al., 2023; Mauritzson et al., 2023; Ratnayake et al., 2022; Stark et al., 2018). A randomized clinical trial found that the home hazard removal program among community-dwelling older adults reduced the rate of falls by 38% (Start et al., 2018). The accessibility of one’s community, safety, and transportation are also the most important considerations among the older population. The study suggested that lack of transportation may lead to social isolation in rural American older adults and an obstacle to accessing various goods and services essential to the quality of

life (Mauritzson et al., 2023; Ratnayake et al., 2022). Another study suggested that the adult population is 18% more likely to be active when their community is accessible (Carver et al., 2018). Likewise, integrating information technology is a pivotal in addressing older adults' distinct challenges and needs by enhancing the aging-in-place environments (Seo & Lee, 2023). It has opened new possibilities for remote monitoring, telemedicine, smart home automation, and assistive technologies, enabling older adults to age in place (Seo & Lee, 2023).

Furthermore, intergeneration service learning has been utilized to mitigate the challenges of elderly aging in place (Ratnayake et al., 2022). Studies found that involving youth in helping older adults suffering from chronic illness with everyday chores improves youths' attitudes towards aging and the adult generation, and it has a positive effect on the older adults' quality of life, physical health, and productivity and lessen the symptoms of depression (Ratnayake et al., 2022).

**Policies and regulations:** The World Health Organization has emphasized Global Age-friendly Cities by proposing eight interconnected domains to identify and address the barriers to the well-being and participation of older people (Vespa et al., 2020). Many policies in the U.S. favor aging in place because of the multifaceted benefits of improving the quality of life and its cost-effective approaches. However, there is a need for programs and policies to address the growing concern of unique housing requirements with an increased aging population.

Policymakers and developers should take the initiative to mitigate physical barriers to build an age-friendly community and environment that promotes connectedness, accessibility to medical care, mobility, and supportive services and includes improving education, advocacy, and infrastructure by involving the architecture, urban planners, housing developers, and real estate

agents to address the distinct housing needs of seniors (Hossen et al., 2023; Ratnayake et al., 2022; Seo & Lee, 2023). Furthermore, more research on the effectiveness of existing programs and areas of opportunities is required to support the goal of growing older adults, which is aging in place with independence and dignity (Carver et al., 2018; Ratnayake et al., 2022).

### **Strengths, and Weaknesses and Literature Gaps**

The strength of the literature is that plenty of studies showed the correlation between staying in their places and increased sense of belonging, familiarity, independence, affordable compared to institutional senior homes, and connectedness to the community, leading to the sound physical, mental, psychological, and social health of older adults. In addition, the literature included studies from different countries with more urban settings than rural communities. However, the weakness noted in the literature is the need for randomized trials in large-scale settings, as most of the studies were systematic reviews. Similarly, the literature suggested that aging in place is affordable compared to traditional senior care expenses, but gathering concrete evidence is challenging. Most of the studies were based on urban areas, even though many older adults belong to rural communities.

The literature gap found insufficient studies to show the effectiveness of various aging-in-place programs in the community. The information on policies and regulations required to address the unprecedented number of age-friendly housing and the communities with enough supportive resources was also limited. More research on how the different sectors can contribute to making safer, affordable, and better accommodations to age-friendly ecological communities with advanced technology is necessary so that challenges of aging in place can be minimized and more adults can age in their place and communities with dignity and autonomy.

## **Methods**

### **Project Design**

This evidence-based project utilized the Johns Hopkins Nursing Evidence-Based Practice model (Johns Hopkins University & Medicine, 2023). This project used evidence-based practices to address the unique housing needs of the senior population that promote aging in place, enhance older adults' independence and dignity, and promote well-being. Hence, this project educated relators on the unique housing requirements at this current time, when the adult population and housing needs are booming unexpectedly.

This Doctor of Nursing Practice (DNP) project did not involve human subject research because it implements evidence-based quality improvement healthcare or program/system evaluation. DNP project is part of the academic requirements for quality improvement intended to improve and further develop process improvement and program effectiveness, and it will not produce generalizable knowledge. Based on the Common Rule, this project was reviewed by the Scientific Review Committee, and this project is excluded from International Review Board (IRB) application or review. The project committee approved initiating this quality improvement project (Nancy Atmospera-Walch School of Nursing Scientific Review Committee memorandum, 2021; University of Hawaii Human Studies Program memorandum, 2021) (Appendix B).

### **Setting and Participants**

The setting was a real estate agency in Oahu, Hawaii, and the participants were real estate agents currently associated with this agency.

## **Interventions**

A powerpoint presentation on the current data on the aging population and the increased demand for age-ready homes in the world, United States, and Hawai'i was delivered for about 15-20 minutes among the five participants. Additionally, the presentation also focused on information about age-friendly homes and communities. It provided knowledge among real estate agents to assist prospective buyers planning to spend their adult life in their residences, considering the safety, accessibility, and community resources to support social engagement and well-being of adult life, promoting healthy aging and aging in place. The pre-survey questions in (Appendix C) and the post-survey questions in (Appendix D) were provided to assess the intended objectives of this project.

## **Data Collection**

To assess the current knowledge, beliefs, and confidence level among participants on distinct housing needs of older adults, pre- and post-surveys were conducted. The data on the overwhelming geriatric population growth and the need for age-friendly housing and communities, the information on aging in place and its significance, and the shared roles and responsibilities of real estate agents were discussed. The post-surveys measured the changes in the current knowledge and beliefs and the confidence in approaching the geriatric population with unique housing needs. The questionnaires were created from the literature synthesis based on the objectives of this project and intended to measure the outcomes of this study, so it was not based on any existing validated tool. There were five questions in the pre-and post-survey for descriptive analysis of the data, with one additional question in the post-survey to evaluate if the presentation was helpful for real estate agents in increasing their overall confidence in

approaching the geriatric population. The three questions in the first section of the survey assessed the current beliefs and knowledge on distinct housing needs, and it was answered using a Likert response scale ranging from "1" = strongly disagree, or very unimportant, or poor, or not very confident to "5" = strongly agree, or very important, or very good, or very confident.

Similarly, the second section of the survey had two questions on participants' confidence levels that also utilized a Likert scale response ranging from "1" = not very confident, or strongly disagree to "5" = very confident, or strongly agree. The additional Likert scale question on the post-survey was measured to see if this presentation helped increase the participants' confidence. The participants completed the pre-and post-surveys anonymously. A debriefing session was performed after the post-survey was completed to gather the participants' comments and feedback. The data did not utilize any specific software to analyze the result. The collected data was stored securely in a Google Drive system within the University of Hawaii at Manoa with automatic transit encryption and on Google's servers. The file folder was secured with dual-authentication identification to ensure that the data was well-protected.

## **Analysis**

Data collected from the pre-and post-test were recorded in an MS Excel spreadsheet for analysis to calculate the average median, mode, and mean scores. The pre-and post-test results were analyzed using descriptive analysis based on the changes in the group's mean scores. Response to the additional question, which evaluated this presentation in increasing the participants' confidence, was analyzed separately. In addition, the debrief discussion was summarized to determine if similar interventions would be helpful in addressing the unique geriatric housing needs in the future.

## Results

Five real estate agents participated in the presentation. All participants completed the pre- and post-surveys and participated in the group debrief discussion after completing the presentation and the surveys. The responses were collected, and group median, mode, and mean scores were calculated and summarized in Table 1. The three questions in the current knowledge and beliefs section assessed the knowledge and beliefs of the real estate agents on the different housing needs of geriatric (KB1), their current level of understanding (KB3), and if the information on the housing needs would help them to understand the distinct housing needs of elderly populations (KB2). All three questions improved between the aggregated pre- and post-survey mean scores. Question (KB3) on the current level of understanding of aging in place also showed a significant improvement in the aggregated pre- and post-intervention median and mode scores. Current knowledge and beliefs (KB1) pre-intervention group mean score was 4.17 and 5.0 post-intervention, (KB2) preintervention mean score was 3.4 and 4.2 post-intervention and (KB3) pre-intervention group mean score was 2.8, and post-intervention was 4.8. The two questions on confidence levels assessed current confidence levels (CL1) and increased confidence (CL2) in approaching geriatric clients with unique housing needs. Pre- and post-intervention mean scores of current confidence level (CL1) improved from 3.4 to 3.8. However, the group mean score decreased on the increased confidence level to approach clients with unique geriatric housing needs (CL2) between pre- and post-interventions surveys. The question (CL2) mean score of the group in the pre-intervention survey was 4.8, and the post-intervention mean result was 4.4. The additional question was, "If your confidence level increased, do you think attending this presentation helped increase your confidence?" Three participants strongly agreed, and two participants agreed that the presentation helped increase their confidence in

approaching clients with geriatric housing needs. Figure 1 illustrates the average mean scores between pre-and post-intervention surveys.

**Table 2**

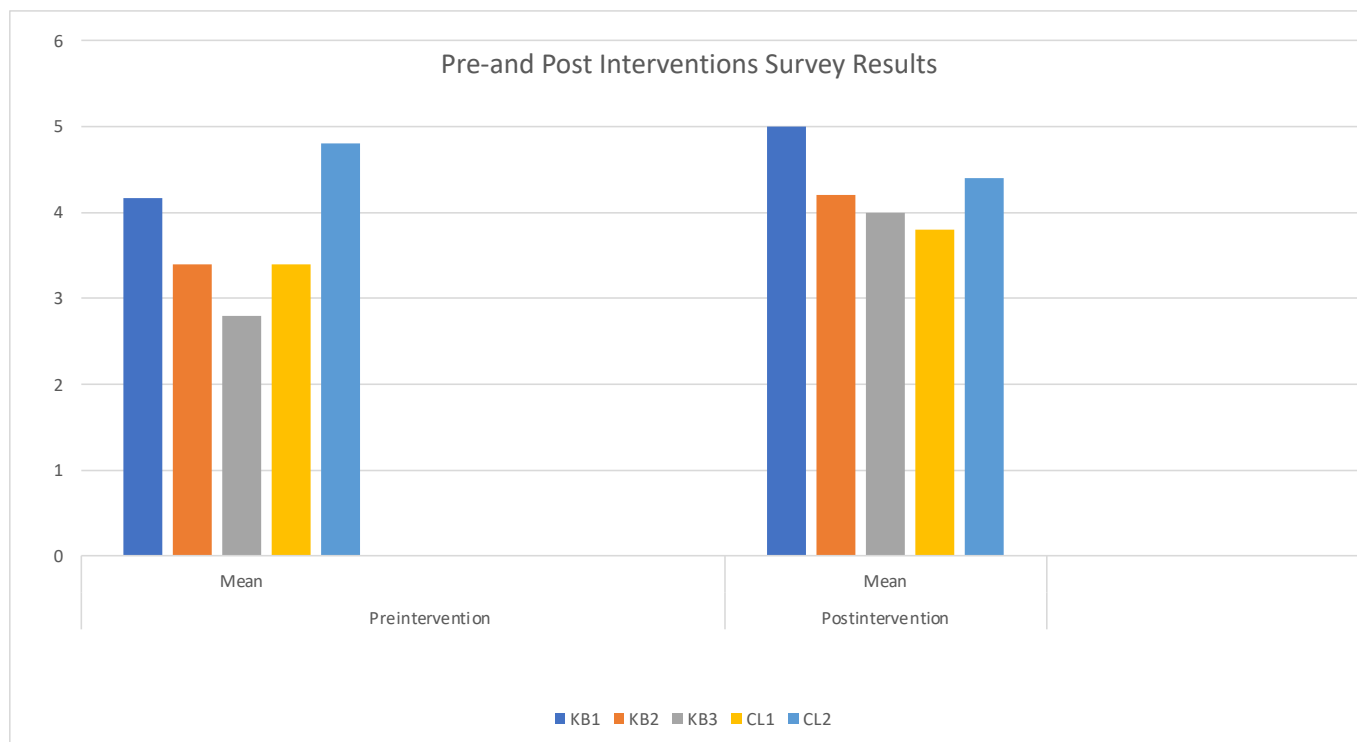
*Comparison of Pre-and Post-intervention Surveys Group median, mode, and mean Scores of Knowledge and Beliefs, and Confidence Level (N=5)*

Item	Pre-Survey			Post-Survey		
	median	mode	mean	median	mode	mean
KB1	5	5	4.17	5	5	5.0
KB2	5	5	3.4	5	5	4.2
KB3	2	3	2.8	3	4	4.0
CL1	3	3	3.4	3	4	3.8
CL2	5	5	4.8	5	5	4.4

Note: 1= Strongly Disagree, or Very unimportant, or Poor, or Not very confident; 5= Strongly Agree, or Very important, or Very Good, or Very Confident.

**Figure 1**

*Pre- and post-interventions survey results*





## Discussion

The purpose of this evidence-based project was to educate and increase the confidence of the realtors on the distinct housing requirements of the geriatric population, which can accommodate the physical and cognitive limitations and enhance the social connectedness of the elderly, and the significance of age-friendly communities and housing that has proven to be helpful in successful health aging of elderly. The project's findings supported the idea that the housing needs of the geriatric population varied from those of the general population, and the education and information helped increase awareness of the unique housing needs of the elderly population. The descriptive analysis of the findings also inferred that the education had improved the knowledge and confidence of the participants to approach the clients with age-friendly housing requirements after the interventions.

However, during the debriefing, it became clear that the participants had a conflict of interest in promoting the concept of aging in place. Even though the participants agreed the information was helpful, they reported a concern that they were not in a position to recommend the housing requirements for the prospective clients. Telling a client whether to buy or sell a house interferes with the client's best interest. The participants also mentioned that their role in modifying and remodeling the existing houses was limited, and other professionals with better knowledge and skills could assist in such a situation. Addressing the distinct housing needs of the older population and the aging in place involves the multidisciplinary fields of architecture, urban planning, gerontology, sociology, psychology, researchers, policymakers, and healthcare practitioners to address the physical, social, psychological, mental, and cultural aspects of older adults (Hossen et al., 2023; Roy et al., 2018). Every professional and discipline has a unique role in assisting the successful healthy aging of the elderly population that has been proliferating in

recent times where there are not sufficient healthcare staff, nursing or long-term homes, or aging-in-ready homes or communities to meet the housing demands.

Overall, the project's results supported the idea that education helped the participants improve their knowledge and confidence in approaching geriatric clients. Although participants reported that their role in aging in place does not directly allow them to recommend the housing requirements for elderly people, knowledge and awareness of the unique geriatric housing needs and the level of care of elderly clients would assist real estate agents in serving clients better, depending on the client's requirements and housing needs.

### **Strengths and Limitations**

There are several strengths to this project. Firstly, this project attempted to implement evidence-based findings that provided information on the current data and needs of age-friendly housing for the elderly population among real estate agents who assist the geriatric in making housing decisions. The literature supported that aging in place preserved independence, a positive sense of identity, and social connectedness of the elderly populations, and the comprehensive planning with the involvement of various disciplines and professionals using the new technology prevented falls and infections and improved access to health care and age-friendly communities (Hossen et al., 2023; Mauritzson et al., 2023; Ratnayake et al., 2022; Stark et al., 2018). Secondly, the project was cost-effective. It did not require significant time and money to develop this educational presentation, and the presentation was only 20-25 minutes. The low cost of developing and implementing this project makes it easy to replicate for future EBP projects. Finally, this project is relevant to the growing elderly population's housing needs and the several aspects of successful healthy aging, not only in Hawai'i or the US but also worldwide.

There were several limitations to this project. Firstly, there were few studies on aging in place and the specific role of real estate agents, even though studies supported that aging in place positively affects the overall well-being of the elderly. Secondly, the interventions of this project were based on the literature synthesis and lacked specific guidelines and implementation methods. Thirdly, to measure the changes, the pre-and post-intervention surveys were utilized based on the objectives of this project, so measuring the reliability and validity of such surveys without prior evaluation is difficult. Lastly, there were only five participants in this project. The findings of a large sample size would have been more helpful in generalizing the improvement of this project.

### **DNP Essentials**

The American Association of Colleges of Nursing has established eight essential foundational competencies for both Advanced Practice Registered Nurses and all Doctor of Nursing Practice graduates (American Association of Colleges of Nursing [AACN], 2006). Appendix E provided a summary of how this project assisted the author in fulfilling each of the DNP essentials.

### **Conclusion**

Aging in place and age-friendly communities have gained massive popularity in geriatric health globally. Studies supported that the approaches had significant benefits for the overall well-being of the elderly population, promoting physical, mental, social, and psychological health. Staying in a familiar environment maintains autonomy, identity, independence, and connectedness to society and community, thus reducing the feeling of loneliness among the geriatric population (Carver et al., 2018; Hossen et al., 2023; Mauritzson et al., 2023; Ratnayake et al., 2022). Not only is aging in place a better option to mitigate the increased housing demands

and care related to the rapidly accelerating older population in the world, but it has also been an evidence-based practice to be less expensive and save medical expenses by preventing avoidable falls and infections (Hossen et al., 2023; Mauritzson et al., 2023; Ratnayake et al., 2022; Stark et al., 2018). Similarly, the aging in place serves as a solution to inflation, the insufficient number of healthcare professionals, and the limited number of retirement and long-term care homes in the current situation. It is difficult to find studies on the real estate agent's role in aging in place. There is a need to conduct similar studies in the future to know how real estate agents or other disciplines can impact aging in place. However, better understanding, planning, and knowledge sharing among multidisciplinary professionals about the distinct housing needs of geriatrics and their level of care and aging in place would ultimately lead to successful health aging.

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## Appendix A: Literature Synthesis

Author	Date	Findings
Carver et al	2018	A scoping review suggested the ability to successfully age in place in older adults requires assistance to maintain home, pet care, and transportation to maintain social participation.
Hossen et al	2023	The qualitative study found a significant positive correlation between age-friendly community, social engagement and social support, and elderly well-being.
Mauritzson et al	2023	The observational study utilized descriptive analysis to explore the older adults' perception of home safety and found that taking preventive measures was consistently associated with geriatrics' experience and worry about home hazards.
Mehrabi & Béland	2020	A scoping review found a correlation between social isolation and adverse outcomes and may affect the frailty of older adults.
Roshenwohl-Mack et al	2020	Systematic review and meta-ethnography of qualities studies found that aging is an active, dynamic process in which older adults deal with three interconnectedness core experiences of aging in place: identity, connectedness, and sense of place.
Roy et al	2018	A systematic review study found that several factors influenced the housing decisions of older adults based on the meaning and experience of home dimensions, so the interdisciplinary team should adopt a holistic approach.
Seo & Lee	2023	Bibliometric analysis and literature review identify the roles of multiple disciplines, from architecture, urban planning, gerontology, psychology, and sociology, in improving the residential environment for successful aging in place.
Stark et al	2021	A randomized clinical trial concluded that a brief home hazard removal program effectively reduced the rate of falls by 38% but did not reduce the fall hazards among community-dwelling older adults.

## Appendix B



UNIVERSITY  
of HAWAII  
SYSTEM

Office of Research Compliance  
Human Studies Program

August 31, 2022 **MEMORANDUM**

FROM: Victoria Rivera 

Director, Office of Research Compliance, Human Studies Program University of Hawaii

SUBJECT: Doctor of Nursing Practice Program

This memorandum intends to clarify the University of Hawaii (UH), Human Studies Program (HSP) position regarding the quality improvement (QI) project required by the UH School of Nursing and Dental Hygiene's Doctor of Nursing (DNP) Program.

Based on our prior discussions, students enrolled in the DNP Program are required to complete a QI project in order to meet the *AACN Essentials of Doctoral Education for Advanced Nursing Practice* for this professional degree. According to the AACN guidelines, since this is a practice doctorate, "requiring a dissertation or other original research is contrary to the intent of the DNP. The DNP primarily involves mastery of an advanced speciality within nursing practice."

Therefore, by definition, the DNP quality improvement project required by the UH School of Nursing is not considered human subjects research as defined under federal regulations at 45 CFR 46. To very briefly summarize, *research* is a systematic investigation designed to contribute to generalizable knowledge, and *human subject* means a living individual about whom an investigator conducting research obtains 1) data through intervention or interaction with the individual or 2) identifiable private information. Quality improvement/program evaluation focuses on making judgements about the program, to improve or further develop program effectiveness, and inform decisions about future programming. As part of the DNP program, students are familiarized with the difference between conducting a QI project and a research project.

Given the purpose of the DNP quality improvement project, it is the position of the UH Human Studies Program that these projects are considered "NOT human subjects research" (NHSR) and as such, does not require IRB review. To be clear, this is not a determination of "Exempt" status under 46.101, as these are categories of *research* considered to be exempt from IRB review. Please ensure that DNP students understand that the results of these types of QI projects may be presented or published, but must not be labeled as human subjects research.

Please feel free to contact our office for any questions.

copy: Allison Tse, SODNH Department Chair and Graduate Chair

TO: Rick Ramirez, DNP, APRN-Rx, AG-ACNP-BC, FNP-BC, ENP-C, CEN, CPEN Doctor of Nursing Practice Program Director and Assistant Professor AG-PCNP Specialty Coordinator  
APRN Clinical Course Series Faculty Coordinator

University of Hawai'i at Mānoa School of Nursing and Dental Hygiene

## Appendix C Pre-Intervention Survey

## Current Beliefs and Knowledge on Geriatric Housing Needs.

KB1. Do you think the housing needs of geriatrics is different than the general population?

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

KB2. Do you think information on housing needs of geriatrics and their level of care is important to understand the unique requirements of senior housing?

1. Very unimportant
2. Somewhat unimportant
3. Neutral
4. Somewhat important
5. Very important

KB3. What is your current level of knowledge on the older adult's housing needs?

1. Very Poor
2. Poor
3. Fair
4. Good
5. Very good

## Confidence Levels in Approaching Clients with Unique Geriatrics housing needs

CL1. What is your current level of confidence in approaching the clients with unique geriatric housing needs?

1. Not very confident
2. Not confident
3. Neutral
4. Confident
5. Very confident

CL2. Do you think your confidence level would increase if you had an opportunity to learn about the unique housing needs of the geriatric population?

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

### Appendix D -Post-Intervention Survey

Current Knowledge and Beliefs on Unique Geriatric Housing Needs and their level of care.

KB1. Do you think the housing needs of geriatrics is different than the general population?

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

KB2. Do you think information on the housing needs of geriatrics and their level of care is important to understand the unique requirements of senior housing?

1. Very unimportant
2. Somewhat unimportant
3. Neutral
4. Somewhat important
5. Very important

KB3. What is your current level of knowledge on the older adult's housing needs?

1. Poor
2. Deficient
3. Fair
4. Good
5. Very good

#### **Confidence Levels in Approaching Client with Unique Geriatric housing needs**

CL1. What is your current confidence level in approaching clients with unique geriatrics housing needs?

1. Not very confident
2. Not confident
3. Neutral
4. Confident
5. Very confident

CL2. Do you think your confidence level increased when approaching clients with unique geriatrics housing needs?

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

CL3. If your confidence level increased, do you think attending this presentation helped increase your confidence?

1. Did not increase the confidence level
2. Strongly disagree
3. Disagree
4. Neutral
5. Agree
6. Strongly agree

## Appendix E

## AACN DNP Essential Related to DNP Project

<b>The Essentials of Doctoral Education for Advanced Nursing Practice</b>	<b>Application of the Essentials</b>
I. Scientific Underpinnings for Practice	<p>Information on aging in places and the unique geriatric housing needs and level of care were gathered through a literature review and synthesis.</p> <p>Used evidence-based ideas for a presentation on the current data of the increasing elderly population and the availability of current aging-ready homes that meet physical, social, and mental needs.</p>
II. Organizational and Systems Leadership for Quality Improvement and Systems Thinking	The literature review helped to understand the increased demand of aging in place and the important roles of professionals from several disciplines.
III. Clinical Scholarship and Analytical Methods for Evidence- Based Practice	Reviewed the best evidence-based practices from literature review and generated an intervention.
IV. Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care	Utilized information technology to prepare the presentation and surveys, deliver the presentation and evaluate the findings of this project.
V. Health Care Policy for Advocacy in Health Care	<p>Educated relators on the distinct housing needs of geriatric population and the level of care and their roles in addressing the housing decisions of elderly.</p> <p>Ensured privacy of participants' data.</p>
VI. Interprofessional Collaboration for Improving Patient and Population Health Outcomes	Effectively collaborated with real estate agents to disseminate the current findings of aging in place and the unique housing needs of elderly.

VII. Clinical Prevention and Population Health for Improving the Nation's Health	A population-based health evidence-based project was created and implemented to address population health as well as to promote the cost-effective approaches and accessible healthcare needs.
VIII. Advanced Nursing Practice	Aging in place and the unique geriatric housing needs and the level of care were identified and an evidence-based project was designed, implemented, and evaluated to address the issue.