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Aging in Place Perceptions Between Seniors Living in Independent Living Senior Communities and Seniors Living in Residential Homes

Diana L. Delgado
Regis University

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Rueckert-Hartman College for Health Professions
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AGING IN PLACE PERCEPTIONS BETWEEN SENIORS LIVING IN INDEPENDENT LIVING SENIOR COMMUNITIES AND SENIORS LIVING IN RESIDENTIAL HOMES

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Diana L. Delgado

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Abstract

The purpose of this study was to examine the perceptions of aging in place between seniors living in residential homes in the community and seniors residing in independent living senior communities. A cross-sectional, quantitative research design and simple random sampling (SRS) strategy was used for this study. Results: 458 responded to a researcher developed likert scale survey. The sample was generally Caucasian/White (*n*=408, 89.1%), evenly divided between males (*n*=227, 49.6%) and females (*n*=224, 48.9%), and between the age of 65 to 74 (*n*=259, 56.6%). A significant difference was found between those living alone in a residential home and those living in an independent living senior apartment for relying on family (*p*=.020) to promote aging in place rather than accessing community resources. A significant difference was found between those living with other(s) in a residential home and those living in an independent living senior apartment for relying on family (*p*=.002) and relying on social network (*p*=.068) to promote aging in place rather than accessing community resources. There was no correlation found between living arrangement and any of the push factors, utilization of supportive services components, or perceptions rank statements. Conclusion: Although no significant relationships were found between living arrangement and the push factors, utilization of supportive services components, and the rank statements, there were differences found in the populations' surveyed based on living arrangement. Further research is needed to truly understand the link between living arrangement, access and utilization of supportive services, and how families, social networks, and community resources interplay to shape seniors' perceptions of aging in place.

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Chapter 1: Introduction

In the past forty years, the United States has been working diligently to create an infrastructure that can adequately support this nation's aging seniors. Universities have founded institutes dedicated to research in aging services, physicians have pursued board certification in geriatrics, area agencies on aging have been created, and multiple studies have been conducted regarding the state of health and aging of our nation's seniors. As our nation continues to age significantly over the next forty years, our society will be faced with a growing population of seniors who will need a multitude of eldercare services, and our communities will need to be prepared for their unique needs.

In order to identify the unique needs of seniors, it is important to understand the impact that our nation's seniors have on the healthcare industry. According to the National Center for Health Statistics, there were 36.3 million seniors over the age of 65 in 2004. By 2026, the population of Americans ages 65 and older will grow to 71.5 million (American Association of Homes and Services for the Aging, 2007). In 2004, the life expectancy of men at age 65 was 17.1 years and the age expectancy of women at age 65 was 20.0 years. In terms of health status, 27 percent of non-institutionalized persons age 65 and over are in fair or poor health. For non-institutionalized persons age 65 and over, 34 percent have activity limitation caused by chronic health conditions (Center for Disease Control, National Center for Health Statistics, 2004).

Among people turning 65 today, 69 percent will need some form of long-term care, whether in the in the community or in a residential care facility. In 2020, 12 million older Americans will need long-term care (American Association of Homes and Services for the Aging, 2007). If the population continues to age according to projection for the next forty years,

the number of older persons will increase to 80 million and one in five Americans will be age 65 and older (White House Conference on Aging Report, 2005).

Aging in place is a phenomenon that is increasingly taking place in communities across our nation, in residential homes as well as Independent living senior communities in order to avoid institutionalization. Aging in place is defined as "living where you have lived for many years, or living in a non-healthcare environment, and using products, services and conveniences to allow or enable you to not have to move as circumstances change" (Seniors Resource, 2007).

In a 2002 report to Congress by the Commission on Affordable Housing and Health Facility Needs for Seniors in the 21st Century, the Commission outlined five guiding principles for its recommendations, one of which is encouraging aging in place by connecting housing and services for seniors. According to the 2005 White House Conference on Aging Final Report, one of the most significant demographic trends in the United States is our aging population. The report states that our nation's seniors want to age in place and that at any given time, 5 percent of persons over age 65 are in nursing homes and 10 percent living in the community need some form of long-term care (p. 49).

Purpose

The purpose of this study is to examine the perceptions of aging in place between seniors living in residential homes in the community and seniors residing in independent living senior communities.

Research Question

The research question is: Are seniors over the age of 65 who live in residential homes more accepting of aging in place compared to seniors who reside in independent living senior communities?

Null Hypothesis

There are no differences in perceptions of aging place between seniors who reside in independent living senior communities and seniors who reside in residential homes.

According to a 2001 study conducted by the Joint Center for Housing Studies of Harvard University Neighborhood Reinvestment Corporation (Lawler), our society has long believed that as someone grows older and more frail, and as that individual required a range of senior services, it was necessary for the individual to physically move from one setting to another as his or her needs demanded. As aging in place becomes more accepting in communities across the nation, our society can meet seniors' changing needs by adapting their environments to their unique aging needs.

Seniors' perceptions of aging in place is of interest to healthcare administrators because sources of tension can arise when supportive services and housing are linked, which include conflicting desires between the more independent residents and the more frail, dependent residents (Sheehan & Oakes, 2006). In a 1986 article entitled "Accommodative Housing: Social Integration of Residents with Physical Limitations" by Stephens, Kinney & McNeer in *The Gerontologist*, it states, "limited empirical evidence suggests that healthier, more independent residents may feel discomfort living with elderly residents with physical or mental impairments" (Sheehan & Oakes, 2006). This is just a glimpse of the conflict that can arise when dealing with a vulnerable population whose needs differ.

Healthcare administrators also need to be aware that successful aging in place programs decrease the provision of inappropriate care, which reduce costs, by offering a range of services to meet the needs of the individual. Rather than an inflexible service-delivery system, aging in place approaches create both healthcare and housing options that provide support to meet the

individual's desires and efforts of living independently (Lawler, 2001). By understanding the perceptions of seniors as they age in place throughout different spectrums of the continuum of care, healthcare administrators can better meet the challenges of combining supportive services and housing to facilitate aging in place.

As our nation's population ages in place, connecting services to housing is imperative to address the needs of the increasing frailness of seniors (Sheehan & Oakes, 2006). This is important because in order to support aging in place, the services must be available and readily accessible within the aging individual's community. The connection between health and housing for the elderly is intuitive and logical for professionals involved in service provision (Lawler, 2001). Facilities, such as independent living senior communities, struggle with the challenges of aging in place, finding solutions ranging from requiring transfers to facilities with multiple levels of care or permitting private purchase of supplemental services (Morgan et. al., 2006). By engaging in aging in place, those facilities will be able to meet the needs of their seniors within their own community.

As aging in place has developed in Independent living senior communities, providers realized that their housing activities helped them to understand the needs of local seniors, but did not prepare them to become social service providers. The different skill sets needed for providing support and social services compelled housing developers and managers to develop partnerships to deliver those services to their seniors, which is another reason that healthcare administrators need to be concerned with the provision of aging in place services (Lawler, 2001). Healthcare administrators will need to be ready to meet the challenges that our nation's aging seniors will bring to the healthcare community, in terms of physical, mental, social, and emotional needs.

Aging in place at home, without having to move, is the most common form of accommodation as opposed to institutionalization (Perez et. al., 2001). Home, both as a physical entity and a meaningful context for everyday life, has significant implications for how aging is experienced by its inhabitants (Kontos, 1998). Home is also a valuable resource to seniors in adjusting to physical changes that come with aging and it affords independence by defining a space that is controlled by, and is uniquely the domain of, the individual (Kontos, 1998). Home is a space in which to pursue personal interests and, as it is resonant with experiences and expectations, it is a vital aspect of self-identity (Kontos, 1998). Our society has stressed to us the importance of having a place to call home, of which the meaning does not diminish with age.

With that in mind, some seniors' dream of "home" is spending their retirement in a community of peers, such as an Independent living senior community, where they can enjoy ready access to a wide variety of services and activities (Helpguide.org, 2007). Others associate moving out from their present home with the end of their “usefulness” or the loss of “meaning of existence” (Leung, 1987). Home as a physical place and a meaningful context for everyday life carries significance and sentiment and frames the senior’s construction and affirmation of their experiences of independent living. Therefore, the place where the last stage of life is lived is prominent in the experience and interpretation of aging (Kontos, 1998). By promoting aging in place, those last stage of life experiences and interpretations of aging can be lived within the familiarity of the senior's home setting.

Aging in place promotes autonomy, encourages cost-saving interdependence between friends and neighbors in the community, counteracts social isolation and does not involve costly professional support unless needed (Lawler, 2001). For seniors living in a community of peers, such as an Independent living senior community, they create informal support networks, which

provide assistance to those who become less able to manage on their own, which, for many, assists in sustaining their independence. Through the support they give and receive, seniors confirm one another's self-identity. Seniors help each other find appropriate ways of adapting to the physical changes that occur with aging and shape how these changes are experienced (Kontos, 1998).

Unlike seniors living in Independent living senior communities, residential community seniors do not choose to live in age-concentrated neighborhoods. Relocation to special settings sets up sensitivity to age peers, which is not present for those who are aging in place in the community (Sherman, 1988). Differences such as these between seniors living in independent living communities and those living in residential settings bring into question seniors' perceptions of aging in place based on physical location.

Chapter 2: Literature Review

Aging in place strategies create both health care and housing options that support an individual's desire to live independently (Lawler, 2001). As Americans age, our society will progressively face the reality of the increasing number of older adults occupying townhouses, apartment buildings, subdivisions, neighborhoods, towns, communities and cities across the nation (Golant, 2002). As older adults continue to age in these domains, health care providers will be challenged to create strategies that promote aging in place specific to the needs and perceptions of the seniors occupying these dwellings. The purpose of this research is to determine if seniors over the age of 65 who live in residential homes are more accepting of aging in place compared to seniors who reside in independent living senior communities.

Aging in place is a concept that has coupled housing and the elderly for several decades. During the 1950's through the 1970's, the American public came to identify the elderly population as one that was needy and vulnerable due to the onslaught of segregated housing options for the elderly, portraying an image of a population in need of special services and housing alternatives (Rowles, 1994). However, a majority of older adults continued to reside in the community (Rowles, 1994). It is projected that by the year 2050, the number of elderly age 65 and older will reach 86.7 million, and the number of elderly age 85 and over will reach 20.9 million (Federal Agency Forum on Aging-Related Statistics, 2006).

In order to effectively address aging in place, a focus on promoting and preserving seniors' health is essential (Centers for Disease Control, 2007). According to the Centers for Disease Control, the health care costs for an older adult is three to five times greater than the cost for someone younger than 65. By 2030, health care spending is likely to increase by 25% (Centers for Disease Control, 2007). Health issues such as incontinence, poor nutrition, poor

personal hygiene and medication mismanagement add to older adult's declining function which can result with a move to another setting (Marek, 2000). By recognizing, treating and monitoring these health issues early on, older adults can age in place by remaining in their own homes (Marek, 2000). With the projected rise in numbers of the aging population and the health difficulties they will face, aging in place will become more prevalent as older adults continue to reside in their communities.

Preferences

According to Pynoos (1999), approximately 20% of older adults would prefer to live in age-specific housing, whereas approximately 40% to 50% would prefer to live in age-integrated neighborhoods or settings. The elderly prefer to remain at home because they are familiar with their surroundings, neighbors and services (Pynoos, 1999). A study conducted by Robison & Moen (2000) found that stronger ties to the community, as measured housing history, do predict fervent expectations to stay in one's current home.

For many of these seniors, aging in place is an outcome of their reluctance to relocate; for others, aging in place is important because of cost and convenience (Rowles, 1994). In a recent study by Haak, Fänge, Iwarsson & Ivanoff (2007), the relationship between independence and housing was analyzed for a sample of very old elderly (80+) living in Sweden. That study found that the preference for remaining in one's own home relies on staying in control of their situation to remain independent by believing in "one's own capacity" (Haak et. al., 2007, p. 18).

According to a survey conducted by Prince Market Research on behalf of Seigenthaler Public Relations and Clarity, a Division of Plantronics, Inc. (2007), seniors' preferences to remain in their own home are overwhelming. The majority of seniors reported that aging in place by remaining in one's own home is very important to them (89%), but over half (53%) are

concerned about their ability to do so. When asked about a number of important issues related to their independence and health, the top two fears that seniors worry about most are loss of independence (26%) and moving out of home into a nursing home (13%) (Clarity Final Report, 2007).

Preferences for remaining in one's own home are a result of many different internal and external factors. Circumstances that influence a person's perceptions and choices may be the result of a history of prior moves, community and family involvements, personal and family health, as well as economic and social factors that may shape housing expectations (Robison & Moen, 2000). Both living in a non-metropolitan area and being engaged in volunteering increases expectations of aging in place (Robison & Moen, 2000). As the literature shows, many factors influence seniors' perceptions of aging in place; however, specific studies have not been conducted to compare aging in place perceptions of seniors living in their own residential homes versus seniors who have already made an initial move to an independent living senior community.

Infrastructure

No matter in which physical environment an aging adult resides, the reality is that many communities where older people live are not designed for their needs (Alley, Liebig, Pynoos, Banerjee & In Hee, 2007). As the elderly age in place, so do the physical structures in which they live (Golant & LaGreca, 1994). Even retirement communities built over 20 years ago have to "reinvent themselves" by making modifications (Golant, 2002, p. 71). Many older people have been unable to keep up their home for a number of reasons, such as the elder has become increasingly frail and the regular maintenance of a home is physically difficult, and aging in place implies adequate homes (Haldemann & Wister, 1993; Lawler, 2001). In order to have an

infrastructure for aging in place, many environmental barriers have to be overcome to satisfy the elder's preference to age in place.

As the population of seniors aging in place increases, "counties, cities, town and neighborhoods will face new opportunities and challenges as they strive to be responsive to this growing population's aspirations and needs" (Feldman, 2003, p. 268). Some communities are striving to become "elder-friendly communities" by planning and advocating fostering aging in place. These communities actively involve, value, and support older adults by providing services that take into account accommodation of the current elderly population and future older residents and their changing needs (Alley et. al., 2007). Elements of an elder-friendly community include addressing basic needs, optimizing physical and mental health and well-being, maximizing independence for the frail and disabled, and promoting social and civic engagement (Feldman, 2003). Examples of an elder-friendly community include planning for older adult transportation needs such as public transit systems and senior-friendly road signs, traffic signals and lighting (White House Conference on Aging Final Report, 2005).

Since 30% of older people have lived in their homes for more than 30 years, a majority of these homes lack the supportive features and design to promote their needs and aging in place (Pynoos, 1999). Acclimating the senior's residential environment, such as providing amenities and accessibility to services at home and within the neighborhood, is important to prevent breakdown between the senior and their environment (Perez, Fernandez-Mayoralas, Rivera & Abuin, 1999). In a 2007 study conducted in Europe among very old individuals, it was determined that it was the degree of "accessibility problems rather than the number of physical environmental barriers that were consistently associated with major aspects of perceived housing" (Nygren, Oswald, Iwarsson, Fänge, Sixsmith, Schilling, Sixsmith, Széman, Tomsone &

Wahl, 2007, p. 92). Therefore, accessibility to home and services as well as physical environment adaptations are important for promoting aging in place.

Ways to achieve accessibility include increasing the usability of one's home by having well-organized closets, useful equipment and other housing adaptations that are important to promote independence (Haak et. al, 2007). Environmental controls, such as adapting an individual's kitchen by replacing double round faucet controls with a single level control, replacing towel racks in the bathroom with securely mounted grab bars, installing automatic stove turn-off devices, and installing devices that cause a lamp to flash when the phone rings, are simple ways of adapting an elder's environment to promote aging in place (Sit, 1992). As technology advances, measures such as monitors, sensors, cameras and body wear within one's home surroundings are increasingly advancing the ability to live independently and safely at home (Cheek, Nikpour & Nowlin, 2005).

Other designs that can enable seniors to remain in their own homes are easier access to entries, bathrooms and doorways that can provide for walkers or wheelchairs (White House Conference on Aging Final Report, 2005). In an AARP focus group, seniors identified several environmental factors that would enable them to age in place, such as home security, money management, food, grocery shopping, transportation, assistance with exercising and staying fit, telephone reassurance and companionship (Straw, 1995). Whether an individual lives in their own home or within an Independent living senior community, if environmental factors cannot be improved or changed to promote aging in place, other factors will introduce challenges to their aging in place preferences.

Challenges

Aging in place is difficult due to the current disconnect between elderly health services and elderly housing (Lawler, 2001). In Lawler's 2001 Joint Center for Housing Studies report, she recognizes that the health and housing concerns of the elderly are often unified. Lawler states, "When a living environment is affordable and appropriate, an aging individual is more likely to remain healthy and happy" (p. 1). The White House Conference on Aging final report (2005) identifies the "failure to coordinate senior services as the most significant obstacle to aging in place in one's own home" (p. 57).

When the separation between health and housing becomes too wide of gap to bridge, push and pull factors present themselves as challenges of remaining in the home. Pull factors are those that attract people to a certain type of housing option, such as one that offers continuing care, health care services, and household or maintenance help. Push factors include those that prompt an individual to begin thinking about moving, such as a failing health, disrepair of the individual's home, or a reduction in income (Krout, Moen & Holmes, 2002). According to Rubenstein, Kilbride & Nagy (1992), push and pull factors are also categorized as "psychological attachment to the place, housing quality, neighborhood quality, objective affordances of the setting such as convenience and other positive qualities, and subjective affordances of the place, that is, the ability of the home and home environment to be a place at which people can truly be themselves and in charge of their own lives" (p. 32-33).

The push and pull factors that influence an elder's move to another residential environment can have dramatic changes to their levels of independence, which is often created because of fears of injury and difficulties associated with activities of daily living (Klein, 1994). Klein (1994) also points out that the difficulties experienced by this aging population "create

hazards, inconveniences and reduction in quality of life for many more older adults who remain in their homes by choice or necessity" (p. 153). Hence, elders deserve better coordination between supportive services and housing to facilitate aging in place.

Klein (1994) proposed a "goodness of fit" model that relates the role of housing to the functional constraints of aging and the processes to identify and initiate change. He states that characteristics such as self esteem, position of control, and social support directly influence home satisfaction and adjustment, and indirectly purport problem solving related to the features of the home, which, in turn, increase the fit of the home (Klein, 1994). There are many aging in place programs that address the fit of the environment and supportive services that enable an individual to remain in their own home.

Programs

A 2002 report to congress by the Commission on Affordable Housing and Health Facility Needs for Seniors in the 21st Century details five principles for its recommendations, one of which is linking housing and supportive services to promote aging in place (Commission on Affordable Housing, 2002). This report outlines two government programs that were implemented to promote aging in place. In 1978, the federal government created the Congregate Housing Services Demonstration Program (CHSP) to facilitate aging in place and to prevent untimely or needless institutionalization, and to provide "comprehensive housing and supportive services package within a subsidized housing environment" (Commission on Affordable Housing, 2002, p. 48). The CHSP became a permanent grant program in 1990 and continues to provide subsidies for existing grantees for the cost of service coordination and supportive services for applicable residents of Housing and Urban Development (HUD) and Rural Housing Services (RHS) senior housing (Commission on Affordable Housing, 2002).

The second program mentioned in the Commission's report is the HUD-created service coordinator program that was implemented in the early 1990's to facilitate aging in place in subsidized senior housing. The service coordinator's primary function is to "assist residents in obtaining affordable supportive services provided by community agencies (Commission on Affordable Housing, 2002, p.80). This program promotes aging in place by securing supportive services in order to delay the onset of institutionalization (Commission on Affordable Housing, 2002).

Another federal program that was implemented to delay institutionalization is the Program of All-Inclusive Care for the Elderly (PACE). The PACE program is a Medicare/Medicaid option that was one of the first programs to develop an inclusive model for satisfying the health and functional needs of frail seniors in the least restrictive environment (Mollica, 2003). A focus group conducted by the National PACE Association found that PACE is one way to provide choice, individuality and support for older adults aging in place (Greenwood, 2002). Not only does the federal government recognize the need to promote aging in place, but the state-level government also identifies the needs of older adults and their desire to remain in their own homes.

State-level aging in place efforts are provided through private funding, Medicaid waiver programs and other legislation created to secure third party reimbursement (Van Dyk, 1992). Medicaid long-term care spending may be decreased through supportive services programs that delay institution and prolong aging in place in the community (Pande, Laditka, Laditka & Davis, 2007). A study conducted by Marek (2005) evaluated the clinical outcomes of aging in place for programs such as the state's Medicaid Home and Community-based Services (HCBS), which found that participants of the community-based aging in place program of care had favorable

clinical outcomes compared to similar participants receiving long-term care services in an institutional setting (Marek, 2005). Pynoos, Liebig, Alley & Nishita (2004) affirm that states should invest in aging in place efforts such as service-enriched housing, which is defined as "living arrangements that include health and/or social services in an accessible, supportive environment" (p. 13). Service-enriched housing can be comprised of elderly-specific residences, government subsidized senior housing, and Naturally Occurring Retirement Communities (NORC's), which are neighborhoods that were not originally intended for seniors but because these residents have aged in place they are primarily occupied by older adults (Pynoos et. al., 2004).

NORC's are unique neighborhoods that cater to the delivery of an assortment of supportive services to seniors (MacLaren, Landsberg & Schwartz., 2007). NORC's are the blending of aging adults and existing housing that leads to neighborhoods and communities that replicate retirement settings (Skinner, 1992). NORC's can take on different characteristics in different settings as well. For instance, Skinner (1992) notes that African American older adults in the inner city may be at a disadvantage of residing in a NORC because of the lack of infrastructure to support their special aging needs. However, moving to more appropriate housing "may disturb the delicate balance that took years of community living and sharing to establish, resulting in the potential loss of goodwill and social contacts that had been cultivated over many years" (Skinner, 1992, p. 51).

Wrong idea?

Some health care professionals believe that aging in place expresses the wrong idea. Willing (2005) suggests that the word "place" is misleading. He states that aging in place should have nothing to do with a physical location, but should have to do with self-fulfillment and

personal empowerment, as well as an attitude and environment that promote seniors' ability to maintain control over their lives (Willging, 2005). Therefore, according to Willging (2005), a nursing home should be considered an acceptable location for aging in place. Willging's argument is in contrast to those primarily found in the literature regarding the linkage of aging in place to home.

For older adults who have already made an initial move to an Independent living senior community, health care providers find that aging in place and the deterioration health status of seniors in retirement communities is an up and coming trend in retirement housing (Moore, 1993). The initial age at entry of residents is higher than that of the projections of the retirement community's operators, which forces the operators to face the issue of their residents aging in place (Moore, 1993). Some retirement communities that provide a continuum of care, such as independent living, assisted living and nursing home, believe that aging in place can occur in the "wrong" place; therefore, moving a resident through the continuum of care promotes aging in place in the "right" place (Kepley, 2005). Retirement communities with a continuum of care identify aging in place in a static location as a problem because residents and families are spending money up front to remain in independent living senior as long as possible and then transition to the community's nursing home once they qualify for Medicaid (Moore, 1993).

Rowles (1994) agrees somewhat with health care provider's perspective on moving through the continuum of care. He reminds us that not all older adults are attached to a single place or places; there is a "danger of romanticism--of exaggerating the role of familiarity and emotional affiliation with place as a component of residential preference. It is also possible to overstate the negative consequences of relocation for the elderly" (Rowles, 1994, p. 122). He also states that if we acknowledge the possibility for relocating, it may be achievable to create

programs, such as transfer of photographs, artifacts and other memorabilia, which promote aging in place when physical relocation is inevitable (Rowles, 1994).

Health care administrative challenges

Seniors living in their own residential homes do not choose to live in age-segregated neighborhoods, unlike the residents who move to Independent living senior communities. Relocating to an Independent living senior community promotes sensitivity to age peers, which is not present for those who are aging in place in the community (Sherman, 1988). There are many health care administrative challenges that arise when older adults aging in place are living among their peers.

There are an increasing number of older adults residing in independent living who are requiring augmented supportive services as they age in place (Merrill, 1990). Increasingly, senior housing providers are offering augmented supportive services strategies to enable those residents to age in place rather than seeking a higher level of care as their needs change (Washko, Sanders, Harahan, Stone & Cox, 2007). Housing providers may hesitate to offer supportive services because they fear that their community will be turned into a nursing home or assisted living (Golant, 2003). As health care administrators encourage aging in place in independent living settings, a large percentage of those individuals will become assisted living residents due to the amount and frequency of services they receive (Moore, 2005).

As more and more services are added to independent living, not only will dependent residents be retained, but they will be attracted to the community as well (Merrill, 1990). Many prospective residents tend to make their decisions to move to the Independent living senior community based on their observations of the current resident population (Moore, 2005). Residents who are attracted to the independent living senior community are soon in need of more

assistance than is appropriate in such a setting (Merrill, 1990). After all, peers and neighbors of ailing Independent living senior community residents who have not yet experienced serious aging complications themselves do not want to be constantly reminded of the unavoidable (Moore, 2005).

Aging in place in an independent living senior community proposes challenges that are not present when one is aging in place in his or her own residential home. Because of peer presence, neighbors in good health may be increasingly uncomfortable and eventually object to the blending of the more frail residents with those who are in relatively good health (Moore, 1993). Tensions can arise when there are conflicting desires between the more independent residents and those who are frailer (Sheehan & Oakes, 2006).

In research conducted by the Institute for the Future of Aging Services (IFAS), three Denver-metro area Independent living senior communities were studied to discover how they assist residents in maintaining independence in the face of growing frailty (Washko et. al., 2007). Although the IFAS study's results cannot be generalized to all affordable senior housing providers in the country, residents' perceptions and fears of growing more frail while living in independent housing are relevant (Washko et. al., 2007).

There was concern by some residents and families about whether they could continue residing in their apartment if the administration discovered that their health was compromised (Washko et. al., 2007, p. 19). These same individuals were afraid to seek out medical care or accept social services for fear that they would not be viewed as independent (Washko et. al., 2007, p. 19). The focus groups expressed concern that residents are allowed to stay too long in the independent living senior community, stating that individuals should be moved to assistive care rather than remaining in independent living (Washko et. al., 2007, p. 37). There was also

fear that allowing residents to stay in their apartments as they became older and frailer would contribute to them becoming more dependent (Washko et. al., 2007, p. 37). In another IFAS study (Harahan, Sanders & Stone, 2006) that examined the integration of long-term care strategies (supportive services) and affordable independent living senior housing, housing providers stated, "residents themselves often oppose aging-in-place strategies. Many don't want to be reminded that they may lose independence as they age" (p. 13).

Summary

As housing administrators strive to enable aging in place to happen within their Independent living senior communities, even they differ in their meaning of enabling residents to remain in their homes for "as long as possible". Some housing directors "appeared to place no limits on aging in place, while others appeared to set restrictions linked to the relatively independent nature of the housing" (Sheehan & Oakes, 2006, p. 71-72). It is clear that housing administrators need to better understand how seniors perceive aging in place so that they can better define aging in place within their own communities.

Aging in place should be promoted by delivering the most appropriate services to people in the least restrictive environment (Mollica, 2003). By understanding the perceptions of seniors living in their own residential homes and those of seniors who live in Independent living senior communities, health care administrators can focus on tailoring aging in place strategies to meet the needs of seniors based on physical location.

Chapter 3: Methodology

Approach to problem

The purpose of this study was to examine the perceptions of aging in place between seniors living in residential homes in the community and seniors residing in independent living senior communities. Understanding seniors' perceptions of growing old at home is important in order to design the programs necessary to successfully promote aging in place. It is important to understand how seniors perceive aging in place, no matter what their living situation, so that specific programs can be designed to support aging in place initiatives.

Two populations of seniors were studied to compare their perceptions regarding aging in place: Seniors living in residential homes in neighborhoods compared to seniors living in Independent living senior communities. By surveying these populations, healthcare administrators and aging services organizations can better understand how to gear aging in place concepts in order to create longevity of aging in place in these environments.

Research design

A cross-sectional, quantitative research design was used for this study. Using a cross-sectional design allows for the measurement of variables at one point in time to see if relationships can be established between variables (Spector, 1981). By surveying a subset of the population of seniors age 65 and older at one point in time, the research design is defined as cross-sectional. Advantages of using a cross-sectional research design include being able to gather data from dispersed subjects and being able to gather data on attitudes and behaviors, or, in this case, perceptions (California State University, Long Beach (2008).

Sampling strategy

A simple random sampling (SRS) strategy was used for this study. This involved a completely random selection of individuals from the population studied (Brewerton & Millward, 2006). Each person in the population had an equal chance at being selected for the study; it is a "one-stage process - a population is listed and items are selected from it at random" (Gillis & Jackson, 2002). An address list of seniors over the age of 65 living in the Denver-metro area was obtained from an online mailing list supplier. A sampling fraction was used to determine the size of the sample, since at least 15 responses were needed for every variable in the survey. The probability of selection (sampling fraction) was calculated by dividing the number of addresses to be included in the sample by the total number of addresses on the mailing list (Crano & Brewer, 2002). The random sampling fraction used was every ninth address chosen from a list of zip codes in the Denver-metro area (a total of 2,003 surveys) and surveys were mailed to the sample.

Measurement strategy

The study used a research-developed survey (Appendix 1). Approval for the study was obtained from the Regis University Institutional Review Board (IRB) since this study involved human subjects. Three experts in the field of aging reviewed the survey and recommended changes prior to the pilot study; a CEO of a retirement community, an Executive Director of a retirement community, and a COO of a PACE program. A pilot study was conducted with the survey instrument in order to test the reliability of its psychometric properties. A Cronbach's alpha of 0.946 was obtained on the pilot survey, which guarantees internal reliability of the survey instrument. The survey gauged seniors' perceptions of aging in place using ordinal variables (likert scale). The survey included demographic information such as age, race, gender

and living arrangement (living in own residential home or living in an Independent living senior community). It gauged perceptions about utilization of supportive services, transferring through a continuum of care, home as a meaning of existence and usefulness, interdependence among friends, family and neighbors, control over independence and accessibility of home. The push factors associated with aging in place were also included in the survey. Push factors include those that force someone to think about moving, such as a failing health, disrepair of the individual's home, or a reduction in income (Krout, Moen & Holmes, 2002).

The mailing of the survey included a letter explaining the study, along with an addressed, stamped envelope for return of the completed survey. Consent to participate was assumed with the return of a completed survey.

Method of analysis

Once the survey data was collected, the data was analyzed using descriptive statistics and bivariate analysis in the statistical software program SPSS. A Cronbach's alpha was again completed. In order to compare the populations concerning their mean value for the particular variables in the survey, the Mann-Whitney U test was used (Statsoft, 2008). Since ordinal data was mainly used, the Mann-Whitney U test proved to be a more powerful test than the median test (Wong, 1986). The Mann-Whitney U test determined whether there was a difference between the populations (Spiegel, 1999).

The Spearman coefficient was used to tell the strength and type of the relationship between two variables measured on an ordinal scale (Hafner, 1998). Spearman's coefficient offers the ease of shaping the degree of association between sets of ranked data; it is an "excellent tool for analyzing complex data that have been arranged into rank order" (Hafner, 1998, p. 222). Pearson's chi-square was used to determine differences between nominal and ordinal variables.

In order to determine if the null hypothesis is true or not, it is important to note the possibility of Type I and Type II error. Type I error occurs when the null hypothesis is rejected when it is actually true (Swinscow & Campbell, 2002). A range of at least two standard error was set to attempt avoiding Type I error. Type II error occurs when we do not reject the null hypothesis when there is a difference between groups (Swinscow & Campbell, 2002). Type II error was attempted to be avoided by ensuring that the sample was large enough to produce significant results (n=458).

Chapter 4: Results

Description of Demographics

Of the 2,003 surveys sent, 470 (23.5%) responded. Of those surveys, twelve (2.5%) were excluded from the study, resulting in a research sample of 458. Exclusion criteria was based on respondents' lack of response in providing living arrangement information, as well as surveys returned that were completed by people under the age of 65. The majority of the respondents were Caucasians/Whites (*n*=408, 89.1%). The sample was evenly divided between males (*n*=227, 49.6%) and females (*n*=224, 48.9%).

Most of the respondents were between the age of 65 to 74 (*n*=259, 56.6%), followed by age 75 to 84 (*n*=167, 36.5%), age 85 to 94 (*n*=28, 6.1%), and over 95 (*n*=1, 0.2%) Most of the respondents live with other(s) in a residential home (*n*=200, 43.7%), followed by those living alone in a residential home (*n*=148, 32.3%), and those living in an independent living senior community (*n*= 47, 10.3%). See Table 1 for details.

Results

Overwhelmingly, 88.2% of respondents definitely prefer to remain in their current residence for as long as possible. The majority of respondents would not succumb to push factors to move from their current residence; however, failing health, financial crisis, loss of ability to drive, and pressure from family would possibly prompt the majority to move from their current residence. The majority of respondents would possibly utilize supportive services to remain in the current residence; however, home security was ranked as a service that would not be utilized by the majority of respondents (see Table 2).

A Cronbach’s alpha of 0.937 was obtained. The Mann-Whitney U test was used to determine whether there was a difference between the populations surveyed; normal distribution

is not necessary for the Mann-Whitney U test. Comparison groups of those living alone in a residential home and those living in an independent living senior apartment were tested against the rank statements of prefer current residence, seek higher level of care, others' perceptions, rely on family, and rely on social network (see Table 3). There is no difference between groups for prefer current residence (p=.275), seek higher level of care (p=.869), others' perceptions (p=.108), or rely on social network (p=.435). There is a difference between groups for rely on family (p=.020).

Comparison groups of those living with other(s) in a residential home and those living in an independent living senior apartment were tested against the rank statements of prefer current residence, seek higher level of care, others' perceptions, rely on family, and rely on social network. There is no difference between groups for prefer current residence (p=.591), seek higher level of care (p=.969), or others' perceptions (p=.262). There was a difference between groups for rely on family (p=.002) and rely on social network (p=.068).

The Spearman coefficient was used to assess the strength and type of relationship between variables. Only correlation coefficients of 0.7 or larger were considered significant relationships. Push factors, utilization of supportive services components, and the five rank statements were compared to living arrangement. There was no relationship found between any of the push factors, utilization of supportive services components, or five rank statements and living arrangement (see Table 4). However, a positive, strong relationship (r=0.728) was found between having a financial crisis and a reduction in income within the push factors. Medication and bathing was also found to have a positive, strong relationship (r=0.728) within the push factors.

Cross tabulation (Pearson's chi-square test) was conducted between the four nominal variables (gender, age, race, and living arrangement) and the five rank statements (prefer current residence, seek higher level of care, other's perceptions, rely on family, and rely on social network) to determine the significance of relationships (see Table 5). A significant relationship was determined between gender and prefer current residence (p=.000), gender and others' perceptions (p=.004), gender and rely on family (p=.003), and gender and rely on social network (p=.035). There was not a significant relationship between gender and seeking a higher level of care (p=.256).

There were no significant relationships found between age and prefer current residence (p=.984), age and seek higher level of care (p=.175), age and others' perceptions (p=.325), age and rely on family (p=.384), and age and rely on social network (p=.528). Significant relationships were found between race and prefer current residence (p=.000), race and seek higher level of care (p=.018), race and others' perceptions (p=.000), race and rely on family (p=.016), and race and rely on social network (p=.020). There were no significant relationships found between living arrangement and seek higher level of care (p=.562) and living arrangement and others' perceptions (p=.452). There were significant relationships found between living arrangement and prefer current residence (p=.036), living arrangement and rely on family (p=.016), and living arrangement and rely on social network (p=.017).

Since ordinal data was used in the survey, the measure of central tendency used to determine the skew of the distributions is the median. All variables had a positive skew (between 1.409 and 6.938) with a standard error of skewness of 0.114.

Chapter 5: Discussion

Discussion of Results

The research question is: Are seniors over the age of 65 who live in residential homes more accepting of aging in place compared to seniors who reside in Independent living senior communities? The results of the research show that there is no difference in aging in place perceptions between seniors who reside in independent living senior communities and seniors who live in residential homes.

Although no significant relationships were found between living arrangement and the push factors, utilization of supportive services components, and the rank statements, there were differences found in the populations' surveyed based on living arrangement. For those living alone in residential homes and those living in independent living senior apartments, a statistically significant difference was found between the groups regarding how these populations would rely on family to assist them to age in place rather than relying on community resources.

The differences may be attributed to access to community resources. Those living in independent living senior apartments are more likely to have access to community resources to assist them to age in place since on-site staff have knowledge of the resources and can connect them to the appropriate supportive services. After all, Merrill (1990) pointed out that there are an increasing number of older adults living in independent living who are requiring supportive services as they age in place. Those living in residential homes may already rely on family to support aging in place or they may lack the knowledge of available supportive services in the community. As healthcare administrators, we need to find a way to expand community outreach to seniors who live in residential homes in order to provide education regarding resources available to them.

For those living with other(s) in residential homes and those living in independent living senior apartments, a statistically significant difference was found between the groups regarding how these populations would rely on family and their social network to assist them to age in place rather than relying on community resources. Most likely, the respondents who are living with one or more people in a residential home are doing so with a spouse or other family members. The significant difference between the groups may be attributed to reliance on a social network within an independent living senior community. The literature supports that for seniors living in a community of peers, they can create informal support networks, which provide assistance to those who become less able to manage on their own, with assists in sustaining their independence (Lawler, 2001). Seniors help each other find appropriate ways of adapting to the physical changes that occur with aging and shape how these changes are experienced (Kontos, 1998). Healthcare administrators need to embrace informal support networks for seniors within their housing settings in order to promote aging in place and give seniors a sense of purpose in meeting the needs of other seniors.

The majority of respondents perceive that they will not move from their current residence due to push factors, but that they would only possibly utilize supportive services in order to remain in their current residence. The only push factors that would possibly prompt the majority of respondents to move from their current residence are failing health, financial crisis, loss of ability to drive, and pressure from family. However, the majority of the respondents would only possibly utilize supportive services such as home health care, meals delivery, wellness services, physical adaptation of home, transportation, and lifeline to promote aging in place. There appears to be a disconnect between the respondents' willingness to access supportive services to promote aging in place within their current residence and the reality of how those supportive services

defend the push factors from influencing a move from their home. The explanation for this most likely lies in the economic factors of accessing those services; reliance of family and social networks to provide support for those needs will negate the need to invest finances in utilizing community resources.

As Robison and Moen (2000) observed, preferences for remaining in one's own home could be attributed to many internal and external factors that influence a person's perceptions, such as a history of prior moves, community and family involvement, personal and family health, as well as economic and social factors that shape housing expectations. Since a positive, strong relationship was found between having a financial crisis and a reduction in income within the push factors, economic factors probably play a significant role in whether respondents would access supportive services in order to age in place. It is apparent in the research that relying on families and social networks is crucial to promote aging in place rather than relying on community resources to provide the supportive services, which makes more economic sense for those who may be involved in a financial crisis.

Medication and bathing was also found to have a positive, strong relationship within the push factors. Since managing one's own medication and bathing are key factors in activities of daily living and instrumental activities of daily living, it makes sense that as issues with managing medication increase, issues with bathing increase. Again, it is interesting to note that the majority of respondents would not move from their current residence if they experienced medication (51.5%) or bathing (45.4%) challenges, yet only 21.7% would definitely access home health care services if needed. This is indicative of reliance on family and a supportive social network to provide those services in order to avoid a move to a higher level of care, as well as the reluctance, or inability financially, of the respondents to utilize community resources.

Significant differences were found between genders and preferring to remain in one's current residence, others' perceptions of loss of independence prompting a move from the current residence, relying on family more than community resources to assist aging in place, and relying on social network more than community resources to assist aging in place. Male respondents were more open to the possibility of moving from their current residence and more likely to rely on their social network to promote aging in place rather than community resources. Female respondents were more likely to move based on others' perceptions of their loss of independence and more likely to depend on family to promote aging in place rather than community resources. This is helpful for healthcare administrators in relating to the genders when assisting them with aging in place resources.

Significant differences were found between race and preferring to remain in one's current residence, seeking a higher level of care as needs change, others' perceptions of loss of independence prompting a move from the current residence, relying on family more than community resources to assist aging in place, and relying on social network more than community resources to assist aging in place. Further research in this area would be helpful to determine the cultural aspects of race in relation to aging in place perceptions.

Significant relationships were found between living arrangement and preferring to remain in one's current residence, relying on family more than community resources to assist aging in place, and relying on social network more than community resources to assist aging in place. Since it is apparent that relying on family and relying on one's own social network affects utilization of community resources within living arrangement, further research in this area would be helpful for healthcare administrators in order to understand the relationships between these components.

Strengths and Limitations of Study

There were several strengths in this study. By randomly selecting the sample population, threats to internal validity were avoided such as selection and researcher bias. By obtaining a Cronbach's Alpha of 0.937 on the survey, internal reliability was obtained for instrumentation. The sample size of this study was a strength since a large sample was needed to reduce sampling error based on the number of variables in the survey. The survey return rate of 23.5% (*n*=458) allowed the results to be generalized to the overall senior population because the sample is representative of the population surveyed.

For as many strengths noted in this study, there are as many limitations. This study relied on ordinal variables, which limited the ability to interpret the statistical tests. Even though statistical differences and relationships could be interpreted from the data, the types of differences and relationships could not be interpreted. This study did not include income level as a variable, which could have further analyzed the push factors of moving to another level of care and utilization of supportive services for staying in one's home.

A significant limitation noted on the instrumentation was lack of defining "residential home". As surveys were returned, the researcher noted that many respondents checked "other" and wrote in a response that indicated they lived alone in their home or lived with others' in their home. By writing in another response, the researcher could not code the living situation accurately for those respondents; therefore, the results could be skewed.

There also was not an equal sample of those living in residential homes versus those in independent living senior apartment, which could have influenced the results. By not having a large sample of respondents living in independent living senior apartments, the finding of having no differences in perceptions between those groups could also be skewed.

Conclusions

It is clear that no matter what their living situation, the majority of respondents (88.2%) want to remain living in their current residence for as long as possible. These results are reflective of the Clarity Final Report (2007) survey in which 89% of seniors reported that aging in place by remaining in one's own home is very important to them. The literature supports this outcome in that our nation's seniors want to age in place (White House Conference on Aging Final Report, 2005) and that the elderly prefer to remain at home because they are familiar with their surroundings, neighbors and services (Pynoos, 1999). This is important for healthcare administrators because we must understand that seniors are going to require an increasing number of services to support their mission to age in place.

In preparation for serving an increasing aging population, healthcare administrators need to understand seniors' perceptions of aging in place. Although this study did not find any significant differences in seniors' perceptions between those living in residential homes compared to those who have already made an initial move into senior housing, the understanding of seniors relying on their families and social networks prior to seeking community resources is important. It assists healthcare administrators in understanding that by the time seniors seek out community resources to assist them to age in place, the family and social networks resources have most likely been exhausted, making aging in place more difficult to ensure.

It is also important to understand how economic factors influence perceptions of aging in place and how it relates to reliance on family and social networks to promote aging in place. Recommendations for further research include analyzing socioeconomic status, including income level, education level, and occupation, to clarify the relationships between perceptions, push factors, and utilization of supportive services.

It is also recommended that future research be conducted in a qualitative method, such as conducting focus groups, in order to gauge seniors' perceptions of aging in place based on physical location. Since the literature suggests that conflicts can arise when healthier, independent residents feel distress residing with elderly residents with physical or mental impairments (Sheehan & Oakes, 2006), gauging seniors' perceptions in a focus group setting may shed more light on whether peer pressure, family pressure or others' perceptions of the senior's loss of independence would prompt an individual to move from his/her current residence.

Further research is warranted to investigate the relationships between living arrangement and reliance on family and social networks to promote aging in place rather than community resources. The Washko et. al. (2007) study indicates that individuals living in senior living communities may be afraid to seek out medical care or accept social services for fear that they would not be viewed as independent, and that residents and families are concerned about whether they could continue residing in their apartment if administration discovered that their health was compromised. It is clear that further research is needed to truly understand the link between living arrangement, access and utilization of supportive services, and how families, social networks, and community resources interplay to shape seniors' perceptions of aging in place.

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Table 1. Demographic Characteristics of Sample Population.

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	227	49.6	49.6	49.6
Female	224	48.9	48.9	98.5
Missing	7	1.5	1.5	100.0
Total	458	100.0	100.0	

Age	Frequency	Percent	Valid Percent	Cumulative Percent
65-74	259	56.6	56.6	56.6
75-84	167	36.5	36.5	93.0
85-94	28	6.1	6.1	99.1
95 and over	1	0.2	0.2	99.3
Missing	3	0.7	0.7	100.0
Total	458	100.0	100.0	

Race	Frequency	Percent	Valid Percent	Cumulative Percent
American Indian	3	0.7	0.7	0.7
Asian or Pacific Islander	5	1.1	1.1	1.7
African American/Black	24	5.2	5.2	7.0
Caucasian/White	408	89.1	89.1	96.1
Hispanic	14	3.1	3.1	99.1
Other	1	0.2	0.2	99.3
Missing	3	0.7	0.7	100.0
Total	458	100.0	100.0	

Living Arrangement	Frequency	Percent	Valid Percent	Cumulative Percent
Alone in residential home	148	32.3	32.3	32.3
With other(s) in residential home	200	43.7	43.7	76.0
Independent living senior apt.	47	10.3	10.3	86.2
Other	49	10.7	10.7	96.9
Missing	14	3.1	3.1	100.0
Total	458	100.0	100.0	

Table 2. Respondents' Answers (in percentages)

Question	Definitely	Probably	Possibly	Not at all	Missing	Total
Push Factors						
Failing Health	9.4	21.0	49.6	17.7	2.4	100.0
Disrepair of home	5.0	7.4	29.5	52.8	5.2	100.0
Reduction in income	6.3	8.5	36.2	45.4	3.5	100.0
Financial crisis	9.4	13.1	40.4	33.8	3.3	100.0
Nutrition challenges	2.0	6.6	28.6	59.4	3.5	100.0
Bathing	2.4	10.9	37.6	45.4	3.7	100.0
Medication	2.4	10.3	31.7	51.5	4.1	100.0
Separation from family	5.0	12.7	25.4	52.3	4.6	100.0
Lack of socialization	2.2	6.3	26.9	59.4	5.2	100.0
Loss of spouse/significant other	7.4	9.6	22.7	51.1	9.2	100.0
Loss of ability to drive	8.7	14.6	36.9	36.2	3.5	100.0
Pressure from peers/neighbor	0.4	3.1	27.7	64.8	3.9	100.0
Pressure from family	3.1	17.5	41.3	35.2	3.1	100.0
Utilization of Supportive Services						
Transportation	27.3	22.9	33.8	12.9	3.1	100.0
Legal assistance	14.4	16.6	34.7	28.4	5.9	100.0
Chore service	20.7	26.2	33.0	16.8	3.3	100.0
Handyman	26.6	23.1	27.3	19.0	3.9	100.0
Home health care	21.7	23.6	37.6	13.8	3.7	100.0
Friendly visitor	14.4	18.1	31.4	30.6	5.5	100.0
Home security	18.8	14.8	29.0	32.3	5.0	100.0
Telephone reassurance	16.6	15.9	31.9	29.5	6.1	100.0
Lifeline	15.7	18.6	38.9	21.6	5.2	100.0
Meals delivery	10.5	16.4	38.0	31.0	4.1	100.0
Wellness	27.1	18.6	30.3	20.3	3.7	100.0
Adaptation of home	25.1	23.6	27.7	19.0	4.6	100.0
Rank Statements						
Prefer current residence	88.2	8.5	1.5	1.3	0.4	100.0
Seek higher level of care	10.3	24.9	47.8	14.4	2.6	100.0
Others' perceptions	10.3	23.6	48.3	16.4	1.5	100.0
Rely on family	25.3	24.5	26.9	22.1	1.3	100.0
Rely on social network	13.3	23.6	36.2	23.8	3.1	100.0

Table 3. Rank Statements for Mann-Whitney U test.

Rank Statement from Survey	**SPSS Code for test**
I prefer to remain living in my current residence for as long as possible.	Prefer current residence
I prefer to seek a higher level of care (different living situation) as my needs change.	Seek higher level of care
Others' perceptions of my loss of independence would prompt me to move to a residence that could provide me with more care as I need it.	Others perceptions
If I were to need more assistance with daily living activities, I would rely more on my family to assist me to age in place rather than community resources.	Rely on family
If I were to need more assistance with daily living activities, I would rely more on my social network to assist me to age in place rather than community resources.	Rely on social network

Table 4. Spearman's rho Correlations Compared to Living Arrangement.

Push factors	**Correlation Coefficient**	**Utilization of supportive services**	**Correlation Coefficient**
Failing health	.054	Transportation	.030
Disrepair of home	.014	Legal assistance	.106
Reduction in income	-.075	Chore services	.110
Financial crisis	-.013	Handyman	.198
Nutrition challenges	.004	Home health care	.132
Bathing	-.012	Friendly visitor	.028
Medication	.009	Home security	.123
Separation from family	-.035	Telephone reassurance	-.002
Lack of socialization	.001	Lifeline	.101
Loss of spouse or significant other	-.235	Meals delivery	.065
Loss of ability to drive	-.027	Wellness	.016
Pressure from peers/neighbors to move	.017	Adaptation of home	.054

Five Rank Statements	**Correlation Coefficient**
Prefer current residence	.039
Seek higher level of care	.035
Others' perceptions	-.047
Rely on family	.085
Rely on social network	.020

Spearman's rho correlation of 0.7 or greater is considered a significant relationship.
Two-tailed.

Table 5. Pearson's Chi-Square Crosstabs

	Prefer Current Residence	Seek Higher Level of Care	Others' Perceptions	Rely on Family	Rely on Social Network
Gender	.000	.256	.004	.003	.035
Age	.984	.175	.325	.384	.528
Race	.000	.018	.000	.016	.020
Living Arrangement	.036	.562	.452	.016	.017

P≤.05 considered statistically significant.
Two-tailed.

Appendix 1. Aging In Place Perceptions Cover Letter

Dear Respondent,

I am a graduate student at Regis University and I am inviting you participate in a research project to study seniors' perceptions of aging in place (defined as living independently at home, using services and conveniences to allow you to continue residing there as your circumstances change). Along with this letter is a questionnaire that asks a variety of questions about your perceptions about aging in place. I am asking you to look over the questionnaire and, if you choose to do so, complete it and send it back to me. It should take you about 10 minutes to complete.

The results of this project will be used to assist aging services professionals to better understand how to accommodate seniors to age in place. Through your participation, I hope to understand if there are any differences in perceptions of aging in place between seniors who live in independent living communities and seniors who live in residential homes. I hope that the results of the survey will be useful for the aging services field and I hope to share my results by publishing them in a scientific journal.

I do not know of any risks to you if you decide to participate in this survey and I guarantee that your responses will not be identified with you personally. The survey is not marked with identifying information; you should not put your name on the questionnaire. The survey can be returned to me in the self-addressed, stamped envelope to guarantee your anonymity.

I hope you will take the time to complete this questionnaire and return it. Your participation is completely voluntary. The Institutional Review Board (IRB) at Regis University has approved this study. Consent to participate in this study will be assumed with the return of a completed survey.

If you have any questions about your rights as a research subject, you may contact the Regis University Institutional Review Board (IRB) by mail at Regis University, Office of Academic Grants, 447 Main, Mail Code H-4, 3333 Regis Boulevard, by phone at (303) 346-4206, or by email at emay@regis.edu.

Regardless of whether you choose to participate, please let me know if you would like a summary of my findings. To receive a summary, please contact me at 303-619-4725 or via email at delga955@regis.edu. If you have any questions or concerns about completing the questionnaire or about being in this study, you may contact me. Thank you for your time.

Sincerely,

Diana Delgado
Graduate Student Regis University
Rueckert-Hartman College for Health Professions
Phone 303-619-4725
Email delga955@regis.edu

Appendix 2. Aging in Place Survey

Thank you for participating in this study. The purpose of this survey is to determine the perceptions of seniors over the age of 65 about aging in place (defined as living independently at home, using services and conveniences to allow you to continue residing there as your circumstances change). By completing this survey, you are providing consent to participate in this study.

Please check the box that best describes you:

1. What is your gender?
   - ☐ Male
   - ☐ Female

2. What is your age?
   - ☐ 65-74
   - ☐ 75-84
   - ☐ 85-94
   - ☐ 95 and over

3. What is your race?
   - ☐ American Indian
   - ☐ Asian or Pacific Islander
   - ☐ African American/Black
   - ☐ Caucasian/White
   - ☐ Hispanic
   - ☐ Other:_____

4. What is your living arrangement?
   - ☐ Alone in residential home
   - ☐ With other(s) in residential home
   - ☐ Independent living senior apartment
   - ☐ Other:_____

How likely are you to move from your current residence if you experience the any of the following? **(Please check one box per item)**

	Definitely	Probably	Possibly	Not at all
Failing health……..	☐	☐	☐	☐
Disrepair of home…….	☐	☐	☐	☐
Reduction in income…….	☐	☐	☐	☐
Financial crisis……..	☐	☐	☐	☐
Nutrition challenges……	☐	☐	☐	☐
Bathing challenges……..	☐	☐	☐	☐
Medication challenges……..	☐	☐	☐	☐
Separation from family…….	☐	☐	☐	☐
Lack of socialization…….	☐	☐	☐	☐
Loss of spouse/significant other…….	☐	☐	☐	☐
Loss of ability to drive……...	☐	☐	☐	☐
Pressure from peers/neighbors to move……	☐	☐	☐	☐
Pressure from family to move……..	☐	☐	☐	☐

-OVER-

How likely are you to access the following supportive services in order to remain living in your current residence? **(Please check one box per item)**

	Definitely	Probably	Possibly	Not at all
Transportation……..	☐	☐	☐	☐
Legal assistance……..	☐	☐	☐	☐
Chore services (i.e. housekeeping, grocery shopping)……	☐	☐	☐	☐
Handyman services (i.e. yard work, repairs to home)……	☐	☐	☐	☐
Home health care (i.e. medication assistance, therapies)…	☐	☐	☐	☐
Friendly visitors/companionship……	☐	☐	☐	☐
Home security……..	☐	☐	☐	☐
Telephone reassurance…….....	☐	☐	☐	☐
Personal alert monitoring system/Lifeline……	☐	☐	☐	☐
Meals-on-wheels/Meal Delivery……	☐	☐	☐	☐
Wellness program (exercise, staying fit)……..	☐	☐	☐	☐
Physical adaptation of home (i.e. installing grab bars)…	☐	☐	☐	☐

Please rank the following statements: **(please check one box per statement)**

	Definitely	Probably	Possibly	Not at all
I prefer to remain living in my current residence for as long as possible…….	☐	☐	☐	☐
I prefer to seek a higher level of care (different living situation) as my needs change……	☐	☐	☐	☐
Others' perceptions of my loss of independence would prompt me to move to a residence that could provide me with more care as I need it……..	☐	☐	☐	☐
If I were to need more assistance with daily living activities, I would rely more on my family to assist me to age in place rather than community resources……	☐	☐	☐	☐
If I were to need more assistance with daily living activities, I would rely more on my social network to assist me to age in place rather than community resources…….	☐	☐	☐	☐

Thank you, again, for your time in completing this survey. Please return it in the self-addressed, stamped envelope enclosed for your convenience. If you wish to receive the results from this study, please contact Diana Delgado at delga955@regis.edu. Thank you.