

Abstract

This study examined the plans and adaptations utilized by older adults to age in place and the strategies that supported participation in occupation during the aging process. Three community-dwelling older adult women over the age of 65 participated in semi-structured qualitative interviews. The themes identified were: *The importance of a support network, remaining active, and pride in independence*. An overarching theme consistently reflected throughout interviews was, *subconscious aging*. Occupational therapists can help older adults to consciously think about the aging process and assist with strategies that will afford them to age in place.

Strategies Used By Older Adults To Age in Place

As people age, they face increased health challenges that include high rates of diabetes, strokes, cancers, decreased cardiopulmonary function, decreased balance, vision, and hearing which puts them at greater risk for falls (Federal Interagency Forum on Aging Related Statistics, 2010). In 2009, 39.6 million Baby Boomers turned 65 and the numbers are continuing to grow at such a rapid rate that by the year 2030, they will represent 19% of the American population (Administration on Aging, 2010). The increasing number of aging adults facing health related challenges comes with an economic expense: the 2004 Medicare costs for each individual in the over-65 population was \$14,797, which is 5.6 times higher than the costs per child (\$2,650) and 3.3 times the expenditure per working-age person (\$4,511) and these costs are only projected to rise with the growing aging population (Centers for Medicare & Medicaid Services, 2011). Individuals who are aging, their families and society organizers have to decide how to best manage this situation, one solution being to “age in place.” The American Occupational Therapy Association Societal Statement on Livable Communities (2007, p. 1) defines aging in place as older adults who “desire to remain in their homes and communities as they grow older.” Occupational therapists have the unique skill to adapt home activities and environments to allow people to age in place.

According to Rowe and Kahn (1997) for one to age successfully, older adults should experience a lack of disease and disability, be at a high level of cognitive and physical activity, engage in purposeful occupations, and uphold interpersonal relationships. Klein (1994) demonstrated that aging in an accustomed dwelling within a familiar and safe locality affords psychosocial health; promotes function, involvement in

social interactions, and participation in industrious residential and neighborhood activities. Aging in a personal dwelling with familiar people and belongings yields life satisfaction (Blank, 1988). Indeed, the majority of Americans reported that they would like to remain in their home while aging (AARP, 2003).

It is recognized that it will not be possible for all people to age at home due to advanced complications from aging and reduced participation in occupation (Bontje, Kinebanian, Josephsson, & Tamura, 2004; Borell, Lilja, Svide, & Sadlo, 2001). However, less severe physical declines in health can be remedied by implementing home modifications from an occupational therapist (OT) and preventing falls occurring in the home (Bleijlevens, Hendrks, Van Haastregt, Crebolder, & Van Eijk, 2010; Cumming et al., 1999; Cumming, et al., 2001; Pardessus et al., 2008). The scope of occupational therapy practice is growing to use occupation as a preventative means to reduce healthcare costs and increase the quality of life for older adults (Clark et al., 1997; Hay et al., 2002).

Background

Organizations and community programs involved in aging in place. Research on aging in place revealed that the majority of current research is being conducted in the related fields of gerontechnology, sociology and social policy and through organizations such as American Association of Retired Persons (AARP). A nationwide telephone survey of 2,001 participants aged 45- 85+ was conducted to investigate older adults' perceptions regarding their home, community, and services that will aid in independence and safety during their aging process (AARP, 2003). It was found that four out of five participants (83%) agreed that they would like to stay in their current residence for the

aging process (AARP, 2003). Perceptions about gerontechnology, or devices that allow older adults to live at home, such as activity monitoring devices and advanced communication interfaces, were explored in a pilot study of focus groups. Themes that emerged regarding the relation between gerontechnology and the aspects to age in place, included safety and independence, social interaction, use of technology in the past, and the desire for support (Mahmood, Yamamoto, Lee, & Steggell, 2008). Gerontechnology can be an effective method to afford aging in place but it should be considered that the aging population may present a resistance to technology.

In Baltimore, a consultant on aging and home modifications described how health care, social service and community organizations could adapt rowhomes through home design changes to make communities more inhabitable and protected for older adults (Fisher & Giloth, 1999). The individuals involved in home modifications, as well as older adults aging, were able to give their input on the rowhome remodels. However, at \$100,000 to adapt each rowhome, it was not a cost-efficient design to implement.

A new generation of older adults is emerging. The Baby Boomers, born from 1946-1964, have different characteristics and personality traits from the previous Silent Generation who were born between 1925-1942 (Bonder, 2009). The hallmark of the Silent Generation was the Great Depression and the characteristics of these individuals include “dedication, sacrifice, hard work, and duty before pleasure” (Bonder, 2009, p. 8). Their personality includes being “conformist, conservative, and past-oriented” (Bonder, 2009, p. 8). The Baby Boomers, in contrast, came of age during the Vietnam War and are characterized by “optimism, teamwork, and personal gratification” (Bonder, 2009, p.8).

Their personality consists of “being driven, soul-searching, and having a love-hate relationship with authority” (Bonder, 2009, p. 8).

Bass (2000), a professor of sociology specializing in the area of aging and social policy, described and elaborated on the “third age,” or the life stage where the time for raising children and having a career are ending, and late life and the possible aged-related health complications are beginning. Conversely though, the Baby-boom generation is changing the notion that this “third age” is a period of decline (Haber & Gratton, 1994) in favor of a time of physical and intellectual pursuits (Bass, 2000). Bass (2000) argued that these pursuits, which are fostered by this generations’ monetary spending, will influence the economy, which will have further implications for how public policy and programs are conducted.

An alternative but complementary strategy for aging in place consists of naturally occurring retirement communities (NORCs) which are neighborhoods that did not start as communities in which to age, but became so over time (Bookman, 2008). A survey was conducted regarding the walking behavior of over 700 active seniors residing in a NORC (Ahrentzen, 2010). The vast majority (85.8%) of those surveyed walked for exercise or health. Most included in the study agreed that they felt secure at night (80%), and 82.6% agreed that they considered themselves included in the community. Ahrentzen (2010) concluded that NORCs promote feelings of security and belonging that allow older adults to increase walking behavior, promoting a healthy lifestyle and successful aging.

Villages are another option for older adults to age in place (Thomas, 2011). One example of a village was created in Beacon Hill, Boston. Older adults paid an annual fee to receive a variety of services including volunteers to aid with transportation and basic

home maintenance, lists of pre-screened vendors for various services, and lists of a variety of social activities (Thomas, 2011).

Bookman (2008) argued that traditional aging in place might result in a financial strain for middle-class older adults. Older adults in the middle class make too large an income to receive subsidized services and do not make enough money to pay for private care due to a fixed income (Bookman, 2008). However, a cost analysis from the Well Elderly Study (Hay et al., 2002) concluded that Lifestyle Redesign® intervention that uses occupation preventatively, reduced healthcare costs and increased the quality of life for healthy independent-living older adults of various ethnic and socio-economic statuses.

Barriers to aging in place. Older adults face potential environmental difficulties and health-related challenges in the home and community that can interfere with aging in place. This population experiences the highest mortality rates from accidental injuries because they are more likely to live alone, spend more time at home, and experience greater rates of disease and cognitive deficits (Lau, Scandrett, Jarzebowski, Holman, & Emanuel, 2007). Falls are the most significant accidental injury leading to death for older adults (National Center for Injury Prevention and Control, 2003). Fall risks and environmental barriers in the home include electrical wires and throw-rugs, stairs, objects placed in inaccessible spaces, and slippery surfaces such as bathrooms (El-Faizy & Reinsch, 1994; Stark, 2004).

Beyond falls and environmental barriers, there are also natural physical and cognitive declines of aging to consider. Such challenges to functioning include potential psychological disorders, declines in vision and hearing, and difficulties with medical management. Maintaining a home can be a daunting task. Home maintenance tasks

including cleaning, outdoor care, home upkeep, and repairs were reported as difficult tasks to maintain in a study of 44 independently living older adults (Fausset, Kelly, Rogers & Fisk, 2011). If an individual is physically or cognitively incapable of completing these home care responsibilities, and does not have the adequate funding or social support for assistance, it could create a barrier to remain in the home.

The cognitive declines that are common during aging can result in difficulties with executive functioning, decreased reaction time and the slowing of mental processing (Grigsby, Kaye, & Robbins, 1995; Hooyman & Kiyak, 2005). In a study of older adults living in the community, 30% had bilateral vision impairments (Reidy et al., 1998). Visual difficulties can create a challenge to maintaining safety while completing self-care routines, home maintenance tasks, leisure activities, and community mobility. The common declines in hearing through the aging process can impact interactions with other individuals (Hooyman & Kiyak, 2005). Older adults may face complications managing their health care and chronic disease regimens (Lau et al., 2007). More complicated drug regimens may be required to treat the health-related challenges that accompany aging, placing a higher risk of the improper use of medication including incorrect dosing, not adhering to prescribed treatment protocols, and the mixing of medications (Zahn et al., 2001.)

The role of occupational therapy and aging in place. Current practice in occupational therapy that supports aging in place includes the creation of home modifications to reduce falls to keep people safe in their home (Bleijlevens, Hendriks, Haastregt, Crebolder & Van Eijk, 2010; Cumming et al., 1999; Cumming et al., 2001; Pardessus et al., 2008). Additionally, present practice involves the investigation of

reduced participation in activity of older adults (Bontje, Kinebanian, Josephsson, & Tamura, 2004; Borell, Lilja, Andersson, & Sadlo, 2001). Occupational therapists measure the match between the person and environment through standardized home assessments. One such assessment included the development of the In-Home Occupational Performance Evaluation (I-HOPE) that is used to address the effect of environmental obstacles on occupational performance (Stark, Somerville, & Morris, 2010). A preliminary methodological study was completed to measure older adults' activity patterns, performance and satisfaction in daily activities, and the influence of environmental barriers in the home. High convergent validity and reliability was determined suggesting that the I-HOPE is a promising tool to measure the scale of environmental obstacles to occupational performance (Stark et al., 2010).

Kaminsky (2010) addressed the role of OT in aging and argued for therapists to conduct a needs assessment in the community that the older adult is residing in order to identify programs and services that support aging. Existing programs or services need to address the client's needs, and should be created using best practice. Organizations for older adults have funding obstacles which may require an OT to work with related health professions to acquire grants in order to best meet the needs of the individual and the community.

One such program that supports older adults' efforts to age in place includes Lifestyle Redesign®. This research was initiated with the Well Elderly Study, which included a randomized controlled trial of 361 culturally diverse healthy independent-living older adults in Los Angeles. Participants were randomized into three groups: OT group ($N = 102$), social control group ($N = 100$), and the non-intervention control group

($N = 104$). This study measured the preventive health benefits of a 9-month OT intervention program (Clark et al., 1997). The intervention included weekly group sessions lead by occupational therapists and consisted of didactic presentation, peer exchange, participation and reflection on various activities. The finding revealed that those receiving OT treatment showed a significant improvement in health, function, and quality of life compared with those in the active and passive control groups. A cost analysis conducted in 2002 (Hay et al.) of the Well Elderly study determined that postintervention healthcare expenditures after the OT intervention was less for participants in the OT group (\$967) than the social control group (\$1,726) and the non-intervention control group (3,334). Well Elderly 2, was another follow-up study in which all participants ($N = 460$) received the treatment, used the same intervention methods in addition to one-on-one therapy in the home or community setting (Clark et al., 2011). Well Elderly 2 included a larger sample size and participants from various socio-economic statuses. Researchers concluded that an intervention that uses occupation preventively is a cost effective measure that improves function, health, and quality of life for older adult aging in place. (Clark et al., 1997; Hay et al., 2002,).

A phenomenological study of four retired females living in their own homes was conducted to gain insight into older adults aging in place, specifically their participation in occupation and efficacious aging (Stevens-Ratchford & Diaz, 2003). The researchers found that the home is a place of comfort. The environment of the home allows older adults to feel a sense of pride and self-efficacy to be able to remain in place and participate in activities such as home maintenance like yard work or cleaning, or leisure tasks including relaxation and gardening. Participants were able to uphold traditions and

celebrations such as birthdays with family members. Older adults experienced a sense of freedom as to how they organized their day and felt a sense of community by socializing with neighbors (Stevens-Ratchford & Diaz, 2003). This study was an important way to document how these women experienced the process of aging in place.

“Aging in place is the only feasible option” (Siebert, 2007, p. 3) given the rapidly growing numbers in this demographic. In order to do so, it was argued, OTs must adapt and reach beyond providing services in traditional gerontological practice settings (hospitals, skilled nursing facilities, rehabilitation centers, outpatient clients), to offering therapy in the home (Siebert, 2007).

In 2011, Murphy conducted a systematic review to identify six areas of occupational therapy intervention in successful aging. Articles were searched between 2009 through 2011 in the American Journal of Occupational Therapy, other OT journals. Topics on successful aging that were identified, included using exercise to decrease falls (Clemson et al., 2010), using exercise to decrease pain (Hasegawa et al., 2010), home modifications (Gitlin et al., 2009a; Wilson, Mitchell, Kemp, Adkins, & Mann, 2009), a functional skills training program for individuals with dementia (Lam et al., 2010), an in-home evaluation of assistive technology for older adults with disabilities (Wilson, et al., 2009) and driving rehabilitation (Kay, Bundy, Clemson, 2009; Korner-Blitnensky, Menon, von Zweck & Van Benthem, 2010; Stefano, 2009). This review however, only included quantitative studies, excluding qualitative studies. Qualitative methodology can capture the lived experience of older persons aging in place, and highlight how older persons have been successful at aging in place and satisfied with the quality of their life.

This study will collect and examine the strategies older adults have been using in order to remain safe and experience enjoyment in their homes as they age. It will also attempt to reveal to other older adults those approaches that best serve the individual and wishing to age in place. Therefore, the purpose of this study will be to uncover the plans and adaptations utilized by older adults to age in place and how those strategies support participation in occupation during the aging process.

Method

Research Design

A grounded qualitative design (Glasser & Strauss, 1967) was used to examine the experience of community-dwelling older adults aging in the home. Grounded theory proposes that theories are developed on the basis of conceptualizing data (Glasser & Strauss, 1967). Data are then categorized into concepts that will help to integrate these theories in order for propositions to be made to create conceptual relationships (Glasser & Strauss, 1967). Further, grounded theory affords this researcher the ability to investigate how the participants experienced, reacted to, and responded to the process of aging in place (Glasser & Strauss, 1967). Although two qualitative studies were found, that described the importance of aging in place from the perspective of the importance of occupations (Shank & Cutchin, 2010; Stevens-Ratchford & Diaz, 2003), there have been no studies that have taken a grounded theory approach. Grounded theory provides a unified, systematic means of analysis and as a criterion of grounded theory is for the researcher to set aside personal theoretical notions as much as possible (Gasser & Strauss, 1967). This allows the participants' experience to be more clearly illustrated in a direct way. Semi-structured qualitative interviews allows an in-depth analysis of the themes,

contexts, structures, and capabilities of America's quickly growing aging population, thus allowing the field of OT to better meet the needs of their aging clients.

Participants

The population of interest was community-dwelling adults who are choosing to age in their own homes in the Puget Sound region. Faculty at the University of Puget Sound were used to recruit three participants from local networks, thus forming a convenience sample. This sampling procedure provided a suitable sample from the available population. Three participants were determined to be a satisfactory number in order to gather themes, and it is compatible with the available time and funding. Inclusion criteria consisted of males or females 65 years or older of any race or ethnicity living in a single-family house, duplex or apartment/condominium. These relatively open inclusion criteria allowed the focus of the research to remain on the phenomenon of aging in the home. However, as the emphasis of the study was on older adults aging in their personal residence, those excluded were those living in an assisted living facility, skilled nursing facility, living fulltime with a caregiver, whether related or not, and receive more than 10 hours per week of outside caregiving assistance. Participants were given pseudonyms to protect confidentiality.

Participants consisted of three females between the ages of 70-88 ($M = 76.3$) Given their age, they would fall into the Silent Generation. Both Elaine, 88, and Rebecca, 71, lived alone in a two story single-family home, were caretakers to their respective husbands before they died, and are both actively involved in their church. Their husbands both received home health OT.

Elaine had resided in her home for 45 years. As one of nine siblings, Elaine dropped out of high school at the age of 16 to support her family in rural Minnesota. Her job history included farm work, housekeeping, childcare, factory work, and working as playground aide at an elementary school, which she retired from at the age of 75. She had two daughters, one whom died two years prior. She has a strong family network including several grandchildren and great-grandchildren, the majority of who live close to Elaine. Elaine had a mild heart attack roughly six months prior to the interview.

Rebecca began working in childcare as a teenager. She had a job history in food service, factory work, in a funeral home, and became a nurse at the age of 41, which she describes as the best years of her life. She was a stepmother to two boys with whom she is now estranged and has little family that she is in contact with. However, she has a strong network of friends and neighbors. Rebecca was not only a caretaker for her husband, but also for her mother-in-law who lived with Rebecca and her late husband for 18 years. Rebecca was married to her husband for 51 years and cared for him during his decline due to dementia. Rebecca reported difficulty with her left knee and hip.

Sarah, 70, the most functionally independent participant, lives in a gated community on a golf course with a significant other and her son. Sarah's son sustained a stroke in 2005 and he came to live with her that year. She has been his caretaker since that time and has resided in her home for 17 years. Sarah has three sisters, granddaughter, grandson-in-law, and great grandchildren that live in the area. She has strong network including family, friends, and neighbors that live in her community. Sarah worked in banking and retired at the age of 65. Sarah was in a different circumstance in regards to

maintaining her home because she lives in a neighborhood with a homeowner's association that takes care of home maintenance tasks.

All women reported that they were grateful for their health. Additional data was gathered regarding each participant's basic demographics (see table 1).

Procedures

Before the study began the Institutional Review Board approved the ethical soundness of the study. In order to bolster the rigor of the interview process, the student researcher conducted two practice interviews with two older adults who have been living in their own homes. The project's research advisors were present for the practice interviews in order to provide feedback to the researcher as to questions asked to the adult during the interview.

For the actual research project, Elaine and Rebecca were recruited by a clinical instructor at the University of Puget Sound (UPS) who had provided home health OT services to their husbands. The clinical instructor explained the study to both participants, who then allowed this researcher to contact them. The clinic coordinator from the UPS onsite OT clinic recruited Sarah. Sarah's son receives OT services from the onsite clinic.

Once the participants decided to pursue involvement in the study, the occupational therapy faculty asked permission for the contact information of the participants to be shared with the primary researcher. When the primary researcher contacted the participants, study involvement was reiterated, questions were answered, and it was explained that informed consent regarding individual rights needed to be signed prior to participation. During this communication, an interview time and date was established.

Consent forms were collected when meeting participants for their interviews in order to witness their signatures. Interview locations were selected by the participants: Elaine and Rebecca were interviewed in their respective homes and Sarah was interviewed in a private room at UPS. The initial interviews were expected to last between 60 to 90 minutes, along with a follow up phone interview lasting no longer than 30 minutes. The initial interview with Rebecca lasted 110 minutes to accommodate the depth of her responses. The primary interview with Elaine lasted 79 minutes. The first interview with Sarah took only 31 minutes as a result of her concise style of responding. In order to minimize personal bias and afford triangulation, the author maintained a field journal.

The original interview script was to begin initial questioning with general demographic questions. However, the research committee determined during the practice interviews that these questions made the participant feel uncomfortable. Instead, the primary researcher began with familiarizing the participant with the concept of aging in place. After this explanation, the “grand tour” question was posed to facilitate an open discussion about the strategies, adaptations, and modifications the older adult is using to age in place successfully (Spradley, 1979). Proceeding the “grand tour” question, follow up questions were asked of participants to specify the plans and adaptations the participants use to age in place (see Appendix).

Data Analysis

A qualified transcriptionist transcribed all audio taped interviews. The researcher confirmed accuracy of the transcribed interviews. Themes were generated and coded based on the grounded theory approach (Strauss & Corbin, 1990). After the initial

interviews, open coding was used to create a small set of themes and a set of categories. Once categories had reached saturation, the central phenomenon was identified. Axial coding was then used to tie the categories together (Strauss & Corbin, 1990).

In order to minimize personal bias and to afford triangulation, the author maintained a field journal. A research mentor coded a sample of the initial data to confirm primary theme checking. To improve accuracy and credibility, participants were informed of findings from the first interview to complete member checking and incorporate their responses. Responses were in agreement with the themes generated by the researcher. Member checking occurred over the phone with Elaine and Rebecca and in person at UPS in a private room. An audit trail was kept for the purposes of transparency.

The use of grounded theory strengthened rigor of the study because accuracy of the analyses is checked and monitored throughout the research process (Charmaz, 2006). As grounded theory is concentrated on the subject matter, predetermined notions were evaded (Charmaz, 2006). The structure of participant-lead, open-ended questions allowed full, meaningful responses to their experiences and increased the truth-value.

Results

This study sought to identify the plans and strategies older adults used to remain in the home as they age in order to support participation in occupation. Three themes emerged from the participants interviewed: *The importance of a support network, remaining active, and pride in home ownership*. An overarching theme consistently reflected throughout the interviews was, *subconscious aging*.

Subconscious Aging. Although the older adults interviewed provided information regarding plans and adaptations used to remain at home as they age, an overarching theme throughout was *subconscious aging*. When conducting the interviews, the primary researcher noted that there were often looks of confusion when asked about aging in the home. When asked about any challenges to live at home, Sarah explained,

I've never thought about it. Because I plan on never having to leave my home. We had my mother in assisted living-and if I ever had to go to assisted living... No. I plan on staying in my house-'til it's time for me to leave.

When asked her age for demographic purposes, Rebecca said, "At my age you don't-it's a privilege to reach this...I never thought about how long I would live...I never thought about it...I thought, well, God's going to take me home when He's ready for me to leave."

Sarah explained, "You know, I don't look at myself as elderly... It is hard for me to picture myself as old."

The importance of a support network. This theme includes the physical, emotional, and social support provided by neighbors, family, friends, and church members. These individuals assist the older adult in physical responsibilities such as home maintenance tasks that the individual is either no longer physically capable of doing, or can't afford. The social and emotional support provided included feeling tied to a familial bond; a sense of safety provided from neighbors; conversation, enjoyment and company with neighbors and friends; and prayer from church members.

Neighbors were frequently cited by the three participants as sources of support. Neighbors along with friends that lived nearby or members from the participant's local church, would assist with home maintenance and adaptations at a reduced cost or free of

charge. Types of general home maintenance assistance provided by neighbors included: help flipping a mattress, fixing the lawnmower, hanging pictures, varnishing a door, and fixing chairs. Larger-scale home maintenance projects provided by neighbors often at a reduced cost included: constructing headboards, doing the molding in the house, installing a raised toilet seat, replacing railings on the stairwell, installing grab bars in the shower, installing a sturdy shower rack to use as a grab bar, installing linoleum floors, a yard shed, and placing a stainless steel ramp in the front of the house. In regards to the assistance provided by neighbors, Elaine said, “They’ll come if I ask them. They are very good.” According to Rebecca, “My neighbors make it possible for me to live here because I can keep my home up.”

Family provided many of the home maintenance tasks and adaptations that neighbors provided without the cost of labor. For instance, Elaine’s family installed a new toilet, painted the interior and exterior of the home, helped with yard work such as raking or pulling weeds, replaced cupboards in the kitchen, moved the refrigerator for cleaning, installed hoses in the washing machine, replaced lights in the house, and repaired the answering machine.

Rebecca and Elaine attributed modifications that were originally intended for their respective ailing husbands to be of benefit to them now. For instance, Rebecca is now able to carry heavier objects up the stairs with the replacement of railings and she noted using the grab bars in the shower. When Elaine had her bedroom moved downstairs for her husband, it allowed her to reduce the frequency of having to climb the stairs, reporting that she only goes upstairs about once a week to keep the room clean. Both women reported that the raised toilet made it easier when going from sitting to standing.

Sarah was in a different circumstance regarding the maintenance and adaptations to her home because she lives in a neighborhood with a homeowner's association. She explained that the exterior part of the home is cared for as a part of the association including landscaping, painting, or cleaning the gutters. However, Sarah did not attribute this benefit as a deciding factor into moving into the home. Rather, she chose her community based on the sense of community and feeling of safety that she considered the neighborhood offered.

Neighbors provided emotional and social support by making available a sense of safety in the community. All participants reported that as older adults, they felt targeted for robberies or scams. They employed adaptations, whether conscious or not, to involve their neighbors to make their community safe. Such strategies included deciding to live in a neighborhood based on the perception that neighbors watched out for one another's security, participating in a Neighborhood Watch program, and having neighbors check in on the safety of the older adult. In fact, within the past year of the interview, Elaine's home was burglarized. She identified that neighbors would check on her safety after the burglary. For instance, Rebecca talked about how her neighborhood was a frequent source of robberies; however, she spoke about how she contributes to her neighborhood by making it appear that neighbors are home to avoid break-ins:

And my neighbors around here kind of appreciate me... Certain times of the day around here I'm the only one in this upper part of these two blocks. I pull their trash things over to their garage, or over to the gate where it looks like somebody's you know, moving them.

By making it appear like Rebecca's neighbors are home, she is able to feel important, needed, and make a contribution to the neighborhood.

Neighbors, friends, and church members provided social and emotional support. Social and emotional support included checking in on the older adult if they were sick, providing company, participating in holiday celebrations, and offering prayer. For instance, Sarah's home was not far from where she and her husband had resided for many years, and it offered the benefits of a small community including "developing closeness" with her neighbors. When asked about the advice Rebecca would give to help someone staying in his or home, Rebecca talked about the give-and-take of friendship. As she explained "One of the most important [things] is your friends.... And if you're a friendly, giving person, and you're willing to reciprocate, it's one of your best- it's the top thing."

Rebecca was estranged from her two stepsons and thus neighbors played a strong role. As Rebecca explained, "They invite me on holidays if I don't have someplace to go. And I said I wouldn't move from here if I could right now because I've got too many friends." In this way, neighbors provided Rebecca with much of the emotional and physical support that Elaine and Sarah received from their families.

Family afforded social and emotional support across the spectrum from celebrating joyous occasions and providing social interaction, to being available in times of danger or hardship. For instance, Elaine stayed with her family during a snowstorm when she had lost power. When Elaine had a mild heart attack, her grandson stayed in her home to provide comfort. Sarah also explained that her granddaughter purchased a new home with an accessible bedroom and bathroom on the main floor with the idea in mind that if Sarah wanted to take a vacation, Sarah's son could stay with her granddaughter.

Just knowing that neighbors and family are there provides a sense of support. As Sarah described:

If any of us ever needed help, they would all be there. But I have, you know, so much family support because I've got three sisters that live in the area. Plus, my granddaughter and my grandson live in the area.

Given the participants' social support network, it became evident that they were very active in their home and community.

Remaining Active. This theme refers to a lifelong commitment to remaining physically active, participating in meaningful activities, and having a strong work ethic. This included being open to learn new things throughout life, helping others, being a mentor or role model, being a care provider, and continued participation in IADLs and leisure activities. Elaine explains, "I did a lot of housework...the reason I say it is because I am here today because I was active all my life. You know, I didn't sit and push a pencil."

The concept of reciprocity with neighbors, friends, family, and church members provides the older adult with a sense of purpose. The participants credited giving back throughout life as being instrumental in receiving support from others in their older age. Participants helped other older adults that were less functionally independent by baking, providing conversation and providing local rides to those who no longer drove. In some cases, assistance between the participants and their support network functioned as a type of barter system. For instance, Elaine no longer felt comfortable driving into a densely populated city for a doctor's appointment. In exchange for a ride from a friend, Elaine took her friend out to lunch. In this way, Elaine was able to receive a ride, her friend was

able to continue participation in an IADL task, and both women benefited from one another's social interaction.

Leisure activities that the participants participated in included spending time with grandkids and great grandkids, hobbies including an interest in old cars, walking, water aerobics, reading, baking, cooking, involvement in church, going to meals with friends, and generally spending time with female friends. When asked about how Sarah maintains a healthy lifestyle in order to remain in her home, she reported, "Just keeping active I think is the biggest thing, is just keeping active. I think the more you become- not lazy, but not wanting to do anything is not good. I don't plan on doing that."

Remaining active includes continuing to perform IADL's important to the individual. This includes completing home maintenance tasks that the older adult is still capable of doing. Such tasks included cleaning the refrigerator, oven, floors, and bathroom, vacuuming the car, and cooking. Elaine explains, "I still cook. And I still bake. Where a lot of my friends, they eat out all the time. And I don't. I think that has a lot to do [with remaining at home]-eating good food."

Remaining active also involved knowing when to restrict activities due to natural age-related changes. Activities that were curtailed in the home included scrubbing floors, washing walls, windows, polishing the floor and maintaining a garden. To modify the task, Elaine had a floor with a Swedish finish installed so that she no longer had to get on her hands and knees to clean and could just run a mop over the floor. She has also modified washing her own car once a week to taking it to be washed.

Caring for ailing spouses was also a physically demanding job. For Rebecca, it involved transfers, help with bathing, and sometimes if it was necessary, "dragging him."

When asked the advice Elaine would give to older adults to stay in their homes, she credited “getting out, walking, and mixing with people,” starting the day early, keeping a positive attitude, refraining from fast food, having friends, “giving of yourself, and being thankful.”

Pride in independence. This theme included maintaining your home throughout the years, making modifications necessary for the individual and the family member they were caregivers for, and living a monetarily modest lifestyle.

Sarah was in a different living situation than Rebecca and Sarah. She lived in a gated community in a one-story home where all home maintenance was taken care of, few modifications were necessary for her home, and she did not report financial hardship. Sarah described that her home was designed “for anybody, even with a handicap.” She had renovated the master bathroom with a walk-in shower prior to her son’s stroke, which she attributes as being beneficial to her son now. There are no steps to get into the house and the only modification she needed to make to accommodate her son was to install comfort height toilets.

Elaine and Rebecca credited maintaining their respective homes throughout the years because they were grateful for being homeowners. As Elaine explained, “I never dreamed we’d have a home. And my husband said, too-I never dreamed we’d have a house and paid for...And we’ve always done something every year.” Elaine’s husband was an inspector and throughout the years, he installed a railing on the porch in the backyard, replaced the windows twice, and Elaine and their daughters helped install a wallboard. Rebecca’s husband had intentionally set aside money in his life insurance to be used to help Rebecca “stay in my home.”

Adapting to older age included innovative and resourceful ways of modifying tasks or objects for easier use. Elaine showered after pool exercise at the gym to avoid having to transfer in and out of the bathtub. She noted that this allows her to clean her bathroom less.

As mentioned, remaining active and pride in independence included restricting some ADL and IADL tasks to accommodate the aging process. Some activities that were curtailed included no longer gardening or cleaning the home to the extent in which it was once cleaned. By restricting some of these activities, the participants were able to prioritize the meaningful occupations that they would like to perform.

When asked about the importance of staying at home, Elaine discussed saving and living within your means. She explains:

[To] be able to take care of myself. I am very thrifty. Well, we never had families that could help us, so we always had to make sure that we could pay our bill... We only buy one thing at a time... Now, I help my grandkids and I help my daughters.

Rebecca discussed adapting items to make them easier for use. This included a table that was built with organizers to be placed by the recliner. All of her items are within easy reach, which consisted of the television control, pencils, and highlighters. She additionally credited sitting with a lap cushion where she can do paperwork, watch television, or listen to her stereo.

Each of these older adults went to great lengths in order to be caregivers for family members including their husbands, mother-in-law, and son. These women interviewed provided much of the care on their own and often came up with creative ideas.

Elaine had to adapt to sleeping in a bedroom downstairs after her husband fell on the stairs and was no longer able to climb the stairs to his bedroom. She reported that she now takes the steps one at a time and only goes up the stairs once a week to check on the room. Elaine had grab bars installed in the bathtub for her husband and a raised toilet seat, which she credits as helping her toilet.

When the mobility of Rebecca's husband was declining, she would keep a walker at the bottom and top of the staircase. As his condition deteriorated, they would use a front-wheeled walker with a seat that was donated by a friend once he climbed the stairs. Some of the ways Rebecca was able to care for her husband at home included a neighbor installing a sturdy shower rack to use as a grab bar, using elastic pants to help with dressing to avoid using diapers, and creatively using a large, sturdy piece of plastic that a shipping company was going to throw away to perform bed chair-bed transfers. As his condition worsened, Rebecca could not afford to add on to the house to place a bedroom downstairs so she converted the living room to a hospital room with a bed donated by a friend. Rebecca set up an inflated blow-up mattress on the floor of the living room to use herself to sleep on while her husband slept. Her husband was suffering from dementia and he would wake up in the night disoriented. He would call out to her in the night and by sleeping on the floor, right next to her husband, she was able to say to him, say, "yes honey I'm just a few inches [away]." Both Rebecca and Elaine noted that the home health OT was beneficial to help keep their husbands at home. Rebecca additionally credited a supportive hospice home health nurse.

Discussion

This study intended to uncover the plans and adaptations consciously utilized by older adults to age in place and how those strategies support participation in occupation during the aging process. It was the bias of the primary researcher when undertaking this project that the strategies and adaptations older adults used to remain in the home would be concrete and tangible such as the use of toilet seats, grab bars, and installing railings (Bleijlevens, Hendrks, Van Haasstregt, Crebolder, & Van Eijk, 2010; Cumming et al., 1999; Cumming, et al., 2001; Pardessus et al., 2008). However, this study revealed that older adults are not consciously thinking about the aging process. To the surprise of this researcher, the overarching theme of *subconscious aging* was not mentioned in previous literature. In addition to the theme of *subconscious aging*, the three older adults interviewed offered other themes regarding plans and adaptations used to remain at home as they age. The three other themes identified were *the importance of a support network*, *remaining active*, and *pride in independence*.

The themes of *the importance of a support network*, *remaining active*, and *pride in independence* were instrumental in facilitating older adults aging in place. The results in this study were similar to Klein (1994) that aging at home in a familiar and safe place, leads to psychosocial health; promotes function, involvement in social interactions, and participation in residential and neighborhood activities. Like Rowe and Kahn (1997) defined, the three females interviewed were demonstrating qualities of what it means to age successfully. They all rated their health as good, were cognitively and physically active, engaged in purposeful occupations, and had a strong support network.

The three themes generated from this study also support the findings by Stevens-Ratchford and Diaz (2003), a phenomenological study of four retired females living in their own homes. Like the findings from Stevens-Ratchford and Diaz (2003), the home allows older adults to feel a sense of pride and self-efficacy to be able to remain in place, and supports participation in occupation. Participants were able to uphold traditions and celebrations such as birthdays with family members. These older adults felt a sense of community by being able to socialize with neighbors (Stevens-Ratchford & Diaz, 2003). Further more, this current study elaborated on the support received by neighbors, friends, family, and from a religious community as being instrumental in providing the older adult with physical, emotional and social support to remain in the home. A concern not found in the Stevens-Ratchford and Diaz (2003) study, but was established in this study, was that older adults have a fear regarding their safety, however, neighbors provided the older adult with feelings of security and help.

The health care system in the U.S. has had a long history of basing treatment on the medical model which includes treating a disorder or dysfunction once it has occurred (Yamkovenko, 2012). However, occupational therapists are working on incorporating the wellness model into practice. The wellness model is based on the thought that wellness “is a conscious and deliberate process that requires a person to become aware of and make choices for a more satisfying lifestyle” (Swarbrick, 2012, p. 1). Although the participants in the current study were not consciously thinking about the aging process, they all identified that they were in good health and were grateful that their well-being, which allowed them to remain in their home. Additionally, the participants credited the importance of living an active lifestyle that included a strong work ethic, eating healthy,

remaining physically active, and participating in meaningful activities. Occupational therapists can help the well elderly to start consciously thinking about the aging process in order to assist older adults who wish to remain in the home as they age. One way to achieve this goal would be to work with well elders in retirement communities, senior organizations, villages, and NORCs using an intervention that employs occupation preventively such as the Lifestyle Redesign® program. By using the wellness model, which incorporates physical, spiritual, emotional, occupational, environmental, and financial factors (Yamkovenko, 2012), occupational therapists can bring their knowledge of using occupation preventatively, and partner with the well elderly to incorporate strategies that the older adult is employing to age in place.

Implications of Occupational Therapy

Occupational therapists are known to foster a client-centered approach (American Occupational Therapy Association, 2008) throughout treatment and as a part of discharge planning across all practice settings. By adopting the strategies identified in this paper, occupational therapists can better serve those older adults who wish to remain in their home. It is important to provide clients with resources to establish strong support networks, remain physically and mentally active, and offer skilled consolation regarding home modifications. Occupational therapists can include these resources as a part of discharge planning under the medical model. Therapists can help older adults through both the medical and wellness models by helping to connect older adults with one another through a list serve that functions like a barter system. A list serve could not only help older adults get tasks completed that they are no longer capable of doing, but it can also

serve as a way to conserve time and energy to participate in a more desirable leisure activity.

Through the wellness model, occupational therapists can act as advocates or consultants in the community for those that are aging in place. Therapists can partner with community organizations, city planners, service groups and religious organizations to provide services to assist older adults who remain in their homes.

Therapists can work with community organizations such as senior centers to provide skilled instruction in the areas of occupation such as the care of others including caregiver training and ways to avoid caregiver burnout; organizing outings that utilize either cars, public transportation or walking as modes of transportation to encourage community mobility; providing education in fall prevention, retirement adjustment, and nutrition; volunteer exploration and participation; leisure exploration and participation such as information regarding bowling leagues, book clubs, and knitting clubs (American Occupational Therapy Association, 2008).

In partnering with city planners, occupational therapists can provide information on environmental adaptations when areas of a city or town are being constructed or remodeled. Environmental modifications that encourage accessibility and reduce the risk of falls for older adults includes the installation of railings, creating well lit areas, and increasing magnification and contrast (Tideiksaar, 2009).

Therapists can offer many of the same strategies for continued participation in occupation that are listed above when partnering with service groups and religious organizations. Additionally, they can work with service groups to help older adults identify areas of volunteer exploration and participation such as volunteering with animal

rescues or volunteering in the thrift stores. If an older adult needs to receive in home support, occupational therapists can refer older adults to programs such in home care providers, Meals on Wheels and transportation services. Additionally, occupational therapists can deliver skilled instruction regarding strategies to age in place to older adults that are part of a religious organization.

Study Limitations

The three participants were all heterosexual females of Eastern European decent that identified as Christian. A more diverse sample including males, various races, ethnicities, religions, and sexual orientation would increase the heterogeneity and thus would have been more representative of the older adult population. Having a larger sample size could lend greater support to the themes generated. Additionally, participants were sampled from one general location in the Pacific Northwest and the themes may not be representative of those living in different locals.

Implications for Future Research

As previously mentioned, a greater variety of older adults should be interviewed in order to represent the experience of older adults aging in place. Where as the women of this study were part of The Silent Generation, the Baby Boom generation may have alternative ideas on the strategies and adaptations they use to age in place. Further research should look into the ideas the Baby Boom generation has to remain at home. Additionally, with the growing amount of aging in place communities including NORC's, and villages, it would be revealing to other adults to examine how these groups are aging in place to see how occupational therapists can be involved in providing skilled therapy to these settings.

Conclusion

This study collected and examined the strategies older adults have been using in order to remain safe and experience enjoyment in their homes as they age. It was discovered that older adults may not be consciously thinking about how they will age at home. However, the participants sampled identified the importance of a support network, remaining active, and having pride in independence to age in place and participate in meaningful occupations. Occupational therapists can help the older adults to start consciously thinking about the aging process in order to assist older adults who wish to remain in the home as they age.

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Appendix

Interview Protocol

Are you currently employed? If so, please describe your job.

If you are retired please describe your career.

How long did you work?

Please describe your daily routine.

Has your routine changed since you have retired?

Did your current routine help you when you were working?

Have you changed your routine since you have retired?

What is important to you about your routine?

How long have you lived in your place of residence?

Please describe the importance of living at home.

What do you enjoy doing in your home?

What has helped you to maintain living at home?

For example, walk me through your home, have you made any adjustments, modifications, or changes to the:

- Kitchen?
- Bedroom?
- Bathroom?

What do you enjoy doing outside the home for instance, in your backyard?

Were there any changes to make it safer?

Is there anything specifically you do to the items you use to make them easier to use that allows you to live at home? For example, have you had to adapt any items to make them easier to use?

Please explain any challenges to living at home, such as stairs or home maintenance?

How have you problem solved through these challenges?

Take me through your community and social network:

Does your neighborhood play a part in your staying at home?

Do you receive support from a network of friends, family or neighbors?

How does your social network help you to remain in the home?

Describe how you transport around the community.

Please describe your involvement in any community organizations.

Please explain any social activities or organizations are you involved with.

How does your involvement help you remain in your home?

Tell me about your hobbies.

Have you ever had occupational therapy?

If so, what was your experience?

What did you learn in occupational therapy that allowed you to remain in the home?

Do you use a computer/internet for personal communication or private business?

If so, how do you feel that helps you stay independent in the home?

If not, do you have an interest in using computers?

Age:

What ethnicity/race do you identify with?

What is your marital or relationship status?

Tell me about your current health status.

What advice would you give to help someone stay in his or her home?

Are there any other questions that I have not asked you that you would like to share with me about living in your home?

Is there anything else that you would like to share with me regarding living in your home?

Table 1*Participant Demographics*

	Elaine	Rebecca	Sarah
Age	88	71	70
Years in home	45	32	17
Relationship Status	Widowed	Widowed	Widowed

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