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Restoring and Sustaining Home: The Impact of Home Modifications on the Meaning of Home for Older People

Bronwyn Tanner
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ABSTRACT. The importance of a supportive home environment to successful aging has been well-established in the literature, with home modifications increasingly acknowledged as ways of removing barriers to function and increasing independence for older people. Home modification literature and practice primarily focus on the home environment as a physical space in which to perform tasks and on the impact of modification on competencies and function. **Home, however, is much more than a physical environment.** Within a transactive framework, people and places are seen as engaged in a dynamic, reciprocal relationship through which **home becomes a place of significant personal meaning.** Through a qualitative framework, this study examines the experience of older people living in the community who are recipients of a home modification service. It explores the impact modifying the physical environment has on their experience of home as a place of meaning and provides insight into how home modifications can strengthen

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the home as a place of personal and social meaning as well as improve safety and comfort for the older person at home.

KEYWORDS. Meaning of home, home modification, ageing-in-place

INTRODUCTION

Although there has been increased recognition in the importance of the home environment to the health, well-being, and independence of older people (Australian Bureau of Statistics, 2005; Australian Institute of Health and Welfare, 2003), it is only in the past 2 decades that research on older people's housing has shifted in focus from purposefully built housing and institutional settings to existing housing and community environments (Lanspery & Hyde, 1997; Powell Lawton, 1985; Pynoos, Cohen, Davis, & Bernhardt, 1987).

Several factors have driven this shift into focus. There has been a growing awareness that existing policy frameworks in aged care are insufficient in responding to the future increasing size of the older population (Gray, 2001) along with a recognition of the cost-effectiveness of policies that assist older people in remaining in their communities rather than moving to more specialized institutionalized environments (Andrews, 2002; Heumann & Boldy, 1993; Powell Lawton, 1985). The influence of the social construction model of disability, which has shifted the locus of limitation and impairment away from the individual and toward the recognition that the environment (Bricknell, 2003; Steinfeld & Danford, 1999; WHO, 2001; Zola, 1997), has contributed to an increasing understanding of the importance of changing environments to assist people in remaining in a familiar home and community as they age (Faulkner & Bennett, 2002). Finally, there has been recognition of the need for changes in attitudes, policies, and practices so that the economic and social contributions of older people are supported and "people everywhere are able to age with security and dignity and continue to participate in their societies as citizens with full rights" (Australian Institute of Health and Welfare, 2003, p. 275).

Generally, housing stock worldwide has not been designed or constructed to accommodate the needs of older people in terms of accessibility, safety, independence, and location (Holm, Rogers, & Stone, 1998). In Australia, many older people live in housing built many years ago and designed with features that can become safety hazards and barriers to

independence as occupants age (Bridge, Parsons, Quine, & Kendig, 2002; Faulkner & Bennett, 2002). Home modifications that adapt the physical features of the home to support independence are increasingly recognized as an appropriate policy and practice response (Fange & Iwarsson, 2005; Pynoos, 1993b). Home modifications are defined as conversions or adaptations to the permanent physical features of the home environment to reduce the demands from the physical environment to make tasks easier, reduce accidents, and support independent living (Fange & Iwarsson, 2005; Pynoos, 1993).

Concept
de
modification
du
domicile

Within the home modification literature, only a small number of studies have investigated the effectiveness of home modifications. In many studies, the term “environmental intervention” refers to the physical modification of the home environment (Connell, Sanford, Long, Archea, & Turner, 1993) and to a combination of interventions, including assistive technology or equipment, environmental simplification, and education, performed by a therapist (Cumming et al., 1999; Gitlin, Corcoran, Winter, Boyce, & Hauck, 2001; Giltin, Swenson Miller, & Boyce, 1999; Mann, Ottenbacher, Fraas, Tomita, & Granger, 1999; Trickey, Maltais, Gosselin, & Robitaille, 1993).

Research findings suggest that such environmental intervention has lessened the difficulty and dependence in performing household tasks for people with a mobility impairment (Connell, Sanford, Long, Archea, & Turner, 1993), improved the functional performance in areas of self care and instrumental activities of daily living for the frail elderly, people with dementia, and those with mild functional impairment (Giltin et al., 1999; Mann et al., 1999; Stark, 2004; Trickey et al., 1993), and reduced the need for and the effectiveness of caregivers (Gitlin et al., 2001; Lanspery, Callahan, Miller, & Hyde, 1997).

Effets de la
modif.

Task performance, in terms of parameters such as independence, safety, and quality, has become a key way that researchers in the home modifications field have operationalized the concept of “person–environment fit” (Faletti, 1984; Steinfeld & Danford, 1999). In particular, there has been a focus on the use of assessment of activities of daily living and instrumental activities of daily living as indicators of functional independence and, therefore, person–environment fit.

The desire of older people to remain at home while they age, however, is not solely related to task and function. It has much to do with subjective feelings about what home means to them (Oswald & Wahl, 2005; Sherman & Dacher, 2005). In environmental psychology, it has been proposed that it is the relationship between a person and their dwelling that defines the essence of what “home” is (Dovey, 1985) and the impact of home on health

and well-being is increasingly being recognized (Rowles & Chaudhury, 2005).

There is increasing interest in exploring the links between older people and their home environments and the effect that disruption to the home has on well-being (Rowles & Chaudhury, 2005). Recent studies have shown that older people spend more time in their homes and it is because of this the home takes on greater significance and becomes the spatial focus of the older person's life and a way of preserving independence in the face of possible decreasing function and increasing disability (Oswald & Wahl, 2005; Sixsmith & Sixsmith, 1991). Older people order and manipulate the home environment to both accommodate increasing limitations and be representative of themselves and their lives, with memories and home often inextricably linked (Rubinstein, 1989; Sherman & Dacher, 2005; Sixsmith & Sixsmith, 1991). Older people have a clear relationship between the physical environment they inhabit and their feelings of belonging are not necessarily tied to legal ownership or long occupation (Davison, Kendig, Stephens, & Merrill, 1993).

Although this subjective relationship of person and home is acknowledged as central to the experience of older people remaining at home, there has been little investigation of how home modifications affect this relationship. The small amount of research on this topic that does exist raises questions about the potential of modifications to both support and detract from this relationship (Heywood, 2004, 2005).

The study reported in this article investigated the experience of older people who received home modifications and the impact changes to the physical home environment had on their experience of home. The key research question was: What is the impact of home modification on the experience and meaning of home to older people living in the community?

CONCEPTUAL FRAMEWORK

The research draws its conceptual framework from the literature about the meaning of home and the transactional framework of understanding person–environment relationships. Within a transactive perspective, people and their environments are integrated and mutually defining. Temporal qualities are intrinsic to person–environment relationships and transactive processes between the person and their environment occur at the level of action and at the level of meaning (Altman, Brown, Staples, & Werner, 1992; Steinfeld & Danford, 1999; Werner, Altman, & Oxley, 1985).

The home environment is conceptualized as having 3 primary modes of experience (Lund & Nygard, 2004; Oswald & Wahl, 2005; Sixsmith, 1986; Smith, 1994). These are:

- The physical home—consisting of the concrete raw materials and the design and layout of the dwelling. It refers to the space that can be measured and is shaped by function, culture and history (Sixsmith, 1986; Steward, 2000).
- The social home—encompassing relationships with significant others, such as a spouse or family member, who may often inhabit the same physical environment and also includes those who may enter the home on occasion or exert an influence from outside the home such as relatives, neighbors, friends, and community networks (Dunn, Haney McClain, & Youngstrom, 1998; Rubinstein, 1989; Sixsmith, 1986).
- The personal home—being a place of self-expression, identity, and personal control; a central reference point in a person's life encapsulating feelings of familiarity, security, and belonging (Depres, 1991; Dovey, 1985; Sixsmith, 1986).

Home, as a physical, social, and personal experience, occurs within a temporal framework, reflecting the dynamic and changing nature of the meaning of home for individuals over time. Peoples' relationships with their homes have histories, futures, recurrences, and rhythms that affect their current experience and meaning (Dovey, 1985; Werner et al., 1985).

METHOD

A qualitative methodology reflects the aim to deepen understandings of the subjective world of older people in relation to their home and the impact home modifications have on this world.

Sample

Participants were purposefully sampled to provide as much diversity as possible within the target group. The sample was selected from a population of older people (65 years and over) currently residing in public housing in a metropolitan area who had been in receipt of a home modification to their current accommodation within the previous 3 to 6 months. The researcher had access to the files as an employee of the organization. Current

clients of the researcher were excluded from the study to ensure that the research/service delivery roles were clear with participants. Voluntary informed consent was gained from all participants and ethical approval was obtained from both the University of Queensland and the relevant government department. No identifying data has been included in any material presented from this research and the confidentiality of all participants has been maintained.

Selecting from public housing tenants provided a sample with similarities in income, security, and type of housing tenure and experience of home modification service delivery. Although most older Australians are homeowners rather than public housing tenants, and the literature has identified that older people on low incomes in private rental are most at risk, public housing, as key provider of accommodation for older people on low incomes, has a well-established free home modification program that is currently unavailable to the same extent in the private housing sector. Public housing also provides an opportunity to investigate consumers' perspectives in an environment where key recognized "barriers" to home modifications up take, such as cost, access to services, and lack of informed service providers, have generally been overcome.

Initial data were collected using occupational therapy reports that provided demographic data, a profile of participants' medical issues and functional status, and a list of recommended modifications to their home environments. Twelve participants who had received home modification in the previous 3 to 6 months were chosen from occupational therapy reports in public housing files to include a range of ages, living arrangement, level of disability, and gender, housing types, and home modifications. The purposive sample included 4 men and 8 women, with an age range of 60 to 90 years, and a mixture of people living alone ($n = 5$), living with a partner ($n = 5$), or with other family ($n = 2$). Partners and carers were included in the interviews as relevant or requested by the participant. Participants lived in public housing that ranged from a small one bedroom unit ($n = 2$) to one ($n = 1$), two ($n = 1$), three ($n = 8$), and four bedroom ($n = 1$) houses.

Data Collection

Semi-structured, in-depth interviewing was the primary method of data collection. The data collection occurred over a period of 12 months, with each participant being interviewed once. The interview guide that was used incorporated predetermined questions but also allowed for a less structured

conversation or narrative to occur. The interviews were between 1 and 2 hours in duration and were audiotaped, with the exception of one participant who declined to be recorded. In this case, notes were made during the interview of participant's responses and extensive notes made immediately after the interview recorded as much detail and exact phrasing as possible.

Data Analysis

Audiotapes of the interviews were transcribed verbatim into written data incorporating observed responses and other researcher notes and memos. N-VIVO software was used to assist in the management of the data and thematic analysis of the transcripts (QSR, Melbourne, Australia). The major themes in the interview data were identified using both indigenous codes (those generated by participants) and references to the conceptual framework of this study. Initial codes were grouped into broader categories or themes according to their "internal homogeneity," the extent to which the data in a certain category held together, and their "external heterogeneity" (the extent to which differences among categories were bold and clear) (Patton, 2002, p. 465). A second independent coder was used to confirm categories. Care was also taken to note participants who did not fit within the common themes and those who had different experiences to report.

FINDINGS

The major themes identified in the analysis of the data related first to what participants said about their experience and the meaning of home and second to how home modifications affected this meaning. The analysis also identified several other themes related to service design and delivery that had the potential to affect the experience and meaning of home for older people.

The Meaning of Home

All the participants of this study spoke about home as a place of significant personal and social meaning.

The Personal Home: Making Meaning Through Action

One of the key findings of this study was that acting on the physical environment was the primary way in which participants "made" a house

into a home. This has direct implications for home modification practice. Participants spoke of gardens they had created, improvements they had performed, and furnishings, decorations, and personal objects they had installed, all of which made their dwelling place a home to them. Control over the home environment was also a theme that emerged related to this.

Contrôle
de
l'environnement

We put extra cupboards up, varnished the floors, put curtains and blinds up . . . just made it home. (Gregory, aged 75 years)

Personalizing their houses with significant objects was also a common characteristic with participants in creating "home." Objects on display were often of great personal significance with even small items, such as matches, representing life events, personal history, and meaning. Photos in particular held great personal meaning and were seen as an extension of the relationship with the people they represented.

Personnalisation

That picture up there, (indicating a black and white photo of a man and woman), that was taken the day war was declared. See that one with the air force man? On the other side there's a photo of a soldier and a girl? Well that's G and I. I was 17, and he was 21. And that was the day war was declared. It was an open day at (E) camp Frasier's paddock. At 5-o'clock in the afternoon, Churchill, it came over the loud speaker that war had been declared. . . . All the paintings you see around, our families have done those. (Clare, aged 86 years)

The Social Home: Roles, Relationships and Networks

The meaning of home as a place to strengthen and secure important relationships was a theme that emerged strongly from this study. For some participants, social relationships were of more importance and high value than other aspects of home such as comfort, ease of access, and functionality. Relationships that extend outside of the home were as highly valued as those within the home. Existing social networks contributed strongly to the essence of what home meant and to the individuals' sense of identity.

This was particularly evident for one participant who reported great difficulty in managing the steps and bathroom of her current home. Because minor modifications had given her little functional improvement, she was offered new fully accessible accommodation less than 1 kilometer away from her current home. One of the main reasons she gave for declining this move was that she would lose her role as an informal "bus stop guardian."

Attachement au rôle social qu'elle a dans son quartier.

For many years, she monitored children getting on and off the bus because the school bus stopped outside her house, with many of them waiting in her yard in the morning and afternoon under her protective eye. She valued this role higher than the need for ease of access to her house or bathroom.

I enjoy it here. The fact . . . [that] I have about 8 or 10 kids come of a morning now that school's started. They wait here; if it's raining, they wait on the veranda and otherwise they'll wait in the yard and go out when the bus comes for the children . . . and I like to be able to make sure they're on the bus safe. Some of them get off here in the afternoon and the rest will get off in front of their place or another stop further down. But they all like to get on here. . . . By them being here the bus comes along up the road here, they walk across to catch it and I know they're safe. . . . It makes you feel you're doing something even though I'm not really doing anything . . . to most of the neighborhood children I'm "Nanna." It doesn't matter whether they are related or not. I'm Nanna. Even the 18- and 19-year-olds . . . still refer to me as Nanna. I've got a very large family! (Betty, aged 66 years)

The Physical Home—Space and Comfort

Espace pour les visites de la famille.

Related to the importance of the social experience of home, many participants emphasized having physical space. For many of the people interviewed, space was an important factor in their enjoyment of home because they identified the need to have space for family to come and stay. Space was also identified as important for keeping pets. Maintaining a comfortable physical environment, particularly by managing the discomfort of heat and having pleasing aesthetics, was also an issue for many participants.

The Future Home—Out in a Wooden Box

The desire of participants to remain in their current home and not have to move was strongly evidenced in the findings. This study supports the often expressed assumption that most people wish to remain in their home as they age, preferably until they die or at least are not able to manage for themselves any longer.

As for this place, the only way they'll get me out of here is to take me out in a wooden box. (Jean, aged 66 years)

Impact of Home Modifications on the Meaning of Home

Restoring Home as a Place of Security Safety and Comfort

In examining the impact of modifying the physical environment of the home, the findings show that reducing the demand of the environment through modifications strengthens the personal home as a place of security, safety, comfort, and control rather than one of risk, dependence, struggle, or even imprisonment. Participants of the study spoke of how modifications have increased independence, safety, and comfort in performing daily tasks.

It's great, just great. They put grab rails all around. . . . [It's] safer . . . [and] it's more convenient too. It's much more comfortable. (Colin, aged 77 years)

Independence, Identity, and Impact on Carers

Participants reported that modifications increased their independence, allowing for the maintenance of habitual personal routines. Independence afforded by home modifications also resulted in greater feelings of control and self-efficacy. Some participants no longer had to rely on others (community services or spouses, in particular) to assist in personal care or to provide meals. In these cases, modifications reinforce the control an individual has over routines, daily activities, and others' access to them (privacy). Home, as a place of personal control, mastery, and self-efficacy, is reinforced.

La modification renforce le contrôle de leur propre routine et de leur activité quotidienne.

I've got more confidence and I don't have to depend on somebody to be here in case I fall. It's made me totally independent now. (Jean, aged 66 years)

In reducing reliance on carers, who are often spouses or family members, there was often a reported alteration in the dynamic of the relationship. One participant reported feeling less "cosseted" by his partner and others reported that their spouse was less tied to the house and more able to engage in preferred activities by no longer having to be present to assist them.

To be able to get around like that without having to be cosseted . . . it's very important. Luckily I've got a younger wife who [is] very good to me. She looks after me anyway, but it's much better if I can do

some things for myself. It's better for my self-esteem and also for her benefit as well. She's got a bad back as well and so it doesn't help matters. (Colin, aged 77 years)

One carer reported a dramatic change in the quality of life for both her father (for whom she cares) and herself as a result of having a water lift installed.

[It's been] excellent! We've been dirty stop outs! We've been out nearly every day. It's improved the quality of life. . . . Oh yeah we were just pulling our hair out—so locked up! I know what it's like to be in prison but now we've just been going everywhere. Oh yeah, we're very very happy. We've never been the happiest as when we saw it. . . . We thought "Oh, fantastic." (Rhonda, daughter and carer for Ray, aged 72 years)

Modifications also supported the continuation of existing social networks and important social roles by facilitating the ability to remain in place and keep those connections.

Impact on the Future

The impact of home modifications on participants' view of their future presented a variety of responses that appeared unrelated to gender or living arrangements. For some, having modifications completed made them feel they were well prepared for the future and reduced the likelihood of having to move. Others, however, reported a strong determination to remain living in their home as long as possible irrespective of whether the modifications had been completed.

Impact of Modification Design to Accessible Standards

Although the findings of this study clearly show that improved function, comfort, and ease of access around the physical home were key outcomes for participants, there were several points of interest identified around the impact of the use of design standards as the basis of home modification design. This particularly related to where major modifications were done to the bathroom or entrances to a dwelling. These major modifications were usually based on the Australian Standards for Access and Mobility AS 1428 (Standards Australia 2001), a public access standard for design based on wheelchair accessibility. None of the participants in this study

who had major bathroom modifications used a wheelchair inside their home and most reported that they did not expect the level of accessibility provided.

For two participants, this was well received, but there was less satisfaction with the design for others because some were concerned about the implications of designing for wheelchair accessibility: *Peur de ce que les voisins vont penser.*

When the ramp was finished, this workman with a really loud voice called out “this is now a disability house!” really loudly—the whole street would have heard. (Olive, aged 76 years)

There was also a sense of frustration at trying to get design features that were considered to be to a particular “disability” standard changed:

What I did find and that I was a bit cranky about, the clothesline was about the right height to decapitate me when I walked out. It was the right height for a wheelchair. I asked them to come and lift it and they said get knotted and I had to do it myself. (George, aged 64 years)

Design sont standard et non adapté à la personne.

Loss of Home—Negative Impacts on the Experience and Meaning of Home

There were few reported negative outcomes as a result of the modifications. Two participants, while reporting overall positive outcomes, did report minor negative outcomes related to the design of a vanity unit and a poor outcome with a piece of assistive equipment. There was, however, one participant who was predominately negative about her modifications. As this was contrary to all other participants, this case was examined in detail because it provides insight into the elements that may precipitate home modifications having negative outcomes for older people and, as a result, negatively impact the experience and meaning of home.

The participant was a widow who lived alone in a house she had occupied for over 40 years. She had received modifications, many to AS 1428 design standards, to the entrance and external paths to the carport, bathroom, and kitchen. During the interview, she revealed that she did not initiate the request for modifications nor did she expect the extent of modification that occurred. She spoke frequently about the loss of her “old” home and the disruption to routine and habits due to the modification design. The one aspect of the modifications that she was happy about (the small ramp at the front of the property) she stated several times during the interview was

“her idea.” This is perhaps the one change she felt was in her control and for which she felt a sense of personal ownership.

This case highlights how changes to the physical home environment that are intended to improve function and accessibility can negatively effect the personal meaning of home. Issues raised by this participant include the level of participation and control over what changes are made to the home environment and the importance of ensuring that proposed changes are suited to individual need.

Other participants also reported issues of participation and control. In general, the majority of participants reported satisfaction with the service provided and this was particularly the case for those who had positive interactions with service providers and those who perceived that they were included in the decision-making process. In instances where participation or input was not perceived to be adequate, participants waited until the work was to commence and then exerted control over the final work either by rejecting the proposed change or getting the contractors to modify the work to their specifications. Other factors that negatively impacted the satisfaction of services users included the difficulty in getting information about the service, the amount of time taken from referral to completion, and the lack of follow up and quality assurance of completed work.

DISCUSSION

The central question driving this study concerned the impact that home modifications have on the experienced meaning of home by older people living in the community. The experiences of participants in this study demonstrate that home modifications positively effect the meaning of home by restoring or strengthening home as a place of security, safety, and comfort by decreasing the demand of the environment and supporting the continuation of habitual personal routines or rituals through which people are linked to their home and by which identity, self-esteem, and control are reinforced.

The literature proposes that the performance of daily routine tasks is important processes “linking or anchoring a person to a home place” (Pastalan & Barnes, 1999, p. 82). The performance of these daily tasks or rituals contributes to the creation of “insiderness,” a sense of familiarity that is “rooted in bodily routines” that are taken for granted and eventually unselfconsciousness. As a consequence, home becomes a place

Effet positif sur la signification du chez soi.

of relaxation because of the stability of routine behavior and experience (Dovey, 1985, p. 38). These routines also contribute to a sense of comfort, control, and identity because, as highly individualized activities, “they give meaning to individuals in terms of who they are, what they are, what they do and why they do it” (Pastalan & Barnes, 1999, p. 83). Rowles (2000) describes the “choreography of Being-in-Place” as a melding of “habitual physical routines, habitual social routines and a sense of autobiographical insideness” (p. 59S) into a complex system of “inextricably linked actions, relationships and environmental meanings in a state of homeostasis” (p. 59S). When these rituals are unable to be performed, this homeostasis is disrupted and there is a diminution of self and a loss of identity, self-esteem, and relationship to place and community (Pastalan & Barnes, 1999; Rowles, 2000). Home modifications, therefore, assist in sustaining a sense of place and a sense of self by supporting the performance of daily rituals.

This study also showed that home modifications positively impacted social relationships and networks associated with home. Existing studies on the outcomes of home modifications have reported positive effects on caregivers from environmental changes (Gitlin et al., 2001; Heywood, 2004; Lanspery & Hyde, 1997) and this study supports these findings. In this study, carers reported a reduction in the worry or strain of caring and an improvement in their own quality of life as outcomes of home modifications. Home modifications, therefore, positively affected “the type and quality of relationships and the emotional environment they afford” (Smith, 1994, p. 33), identified by Smith as a significant aspect of the social dimension of home. The importance of maintaining valued roles was an additional theme that emerged from the findings. Home modifications supported the maintenance of roles within the home and the wider community by facilitating remaining in place.

Although the impact of home modifications was positive for the majority of participants, this study does demonstrate the potential for modifications to detract from the meaning and experience of home. The study highlighted several key elements that have the potential to contribute to the loss of a sense of home.

First, the experience of home can be diminished when the physical aspects of accessibility and functionality are emphasized and the personal and social meanings of home held by the home dweller are neglected or disregarded. Closely associated with this is the level of participation by the home dweller in the decision-making processes around the proposed modifications. Hawkins and Stewart (2002) identify that there can be “a

mismatch between the adaptations considered and the symbolic meaning of the home environment to the disabled person” (p. 83) when professionals focus on the functional limitations of the clients in isolation to their experience within a social or family dynamic. This type of conflict has also been identified as occurring between caregivers and goals that are established by health and human service professionals (Gitlin, Corcoran, & Leinmiller-Eckhardt, 1995). Findings from this study show that participants who experienced a clash of values when they felt that their priorities were not understood or considered were reluctant to seek further assistance from the service provider. A consequence of this reluctance could be that the individual is placed at risk, particularly if their function deteriorates further.

The issue of participation and control over the modification process is one that has been identified in the literature as a key area of concern. A study into home adaptations in England and Wales found that wasteful adaptations (those resulting in poor outcomes because of a misdiagnosis of need) were “most often the result of limiting assessment to functional physical issues and leaving out psychological factors such as the need for dignity and sense of control. They were also typified by failure to heed the views of disabled people and families concerned” (Heywood, 2004, p. 130). Nocon (1997) stresses the importance of consulting with professional staff and communicating with and listening to people with a disability when important decisions are being made about their housing. Ensuring that participants are actively engaged in the decision-making process of the intervention reinforces the meaning of home as a primary territory with a perceived degree of personal control (Oswald & Wahl, 2005; Smith, 1994). Ensuring that the priorities of older people are heard and that a participatory approach to assessment and decision making is undertaken are important requirements of a home modification service and are particularly relevant to the approach taken by the occupational therapist involved in the service. In this study, participants were more likely to be satisfied with the overall outcome of the modifications if they perceived that they had an active role in the decision-making process regarding the potential changes to their home. It also appears that the experience of home can be undermined when modification design is driven primarily by accessibility codes and standards for “typical” situations rather than by the specific needs and requests of the individual home dweller.

There has been a continued debate in the literature over the use of “design standards” as the basis of home modification design (Danford & Steinfeld, 1999; Pynoos & Regnier, 1997; Pynoos, Sanford, & Rosenfelt,

2002; Steinfeld & Shea, 1993). The debate centers on the use of standards or codes developed for public access and set out to provide the greatest access for the greatest number of people.

Although logical from a public administrative resource allocation and management perspective, applying this approach to home modification design is problematic because the meaning of home as a private, personalized space is undermined. Accessibility codes are typically designed to determine minimal legal guidelines and have little to do with the needs, aspirations, desires, and uniqueness of a particular individual (Danford & Steinfeld, 1999). The current public access standards are not based on research for older people. Assuming that designing for wheelchair use will be suitable or appropriate for the older person with a range of mobility needs is an untested hypothesis that has not been evidenced in research. In fact, research in the United States has proven that some modifications to the existing accessible standards “may promote more disability among older adults than it ameliorates” (Pynoos et al., 2002, p. 16).

Implications and Recommendations

As an exploratory study, it is not proposed that any generalization to the broader population can occur. It is also acknowledged that the participants in this study are from a particular section of the population of older people (i.e. those living in public housing). However, in the light of the understandings gained from this study, the following implications are drawn.

Implications for Occupational Therapy Practice

Occupational therapists are increasingly being recognized as playing an important role in home modification service process and delivery, particularly in the areas of assessment, follow up, and evaluation of completed work (Pynoos, Nishita, & Perelman, 2003; Pynoos et al., 2002). The occupational therapist also has the responsibility of determining which modifications will “fit the specific needs and capabilities of the individual” (Pynoos et al., 2003, p. 113). The importance of participatory consultation and decision making rests strongly with the occupational therapist because they are often the first face-to-face contact experienced by service recipients. Further investigation into the professional frame of reference and associated model of practice used by occupational therapists working in this area is recommended to determine whether participatory and collaborative decision making is occurring and whether the occupational therapy

intervention supports the unique relationship between a person and their home.

Implications for Service Design and Delivery

Based on the findings of this study and related literature, there is a need for better information about and promotion of existing home modifications services and the benefits of home modification to older people in the community. Further investigation is recommended to determine whether a lack of regular evaluation and continuous improvement is also present within other existing home modifications services. A consequence of poor feedback and evaluation is a paucity of information about the effectiveness of home modifications to guide in the development of best practice models of service delivery, which, as this study highlights, need to be cognizant of the subjective meaning of home in design and delivery home modification services.

CONCLUSIONS

Although small in scale, the strength of this study is that it seeks to deepen understandings of the subjective world of older people in relation to their home and the changes that home modifications have brought to this world of meaning. This study highlights the benefits of home modifications to the experience of older people beyond the observable function and independence paradigm of many of the empirical studies in this area.

This study shows that home modifications have the potential to enhance the experience of home as a place of significant and unique personal and social meaning for older people. Care needs to be taken, however, to ensure an awareness of the meaning of home to older people is embedded in the policy and practices surrounding the provision of home modifications.

REFERENCES

- Australian Bureau of Statistics. (2005). *Australian social trends* (No. 4102.0). Canberra, Australia: Author.
- Australian Institute of Health and Welfare. (2003). *Australia's Welfare 2003*. Canberra, Australia: Author.
- Altman, I., Brown, B. B., Staples, B., & Werner, C. M. (1992). A transactional approach to close relationships: Courtship, weddings and place making. In W. B. Walsh, K. H.

- Craik, & R. H. Price (Eds.), *Person–environment psychology: Models and perspectives*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Andrews, K. (2002). *National strategy for an ageing Australia: An older Australia, challenges and opportunities for all*. Canberra, Australia: Department of Health and Ageing, Australian Government.
- Bricknell, S. (2003). *Disability: The use of aids and the role of the environment*. Canberra, Australia: Australian Institute of Health and Welfare.
- Bridge, C., Parsons, A., Quine, S., & Kendig, H. (2002). *Housing and care for older and younger adults with disabilities: Positioning paper*. Sydney, Australia: Australian Housing and Urban Research Institute.
- Connell, B. R., Sanford, J. A., Long, R. G., Archea, C. K., & Turner, C. S. (1993). Home modifications and performance of routine household activities by individuals with varying levels of mobility impairments. *Technology and Disability*, 2, 9–18.
- Cumming, R. G., Thomas, M., Szonyi, G., Salkeld, G., O'Neill, E., Westbury, C., et al. (1999). Home visits by an occupational therapist for assessment and modification of environmental hazards: A randomized trial of falls prevention. *Journal of the American Geriatrics Society*, 47, 1397–1402.
- Danford, G. S., & Steinfeld, E. (1999). Measuring the influences of physical environments on the behaviours of people with impairments. In E. Steinfeld & G. S. Danford (Eds.), *Enabling environments: Measuring the impact of environment on disability and rehabilitation* (pp. 111–137). New York: Plenum Publishers.
- Davison, B., Kendig, H., Stephens, F., & Merrill, V. (1993). *"It's my place" - Older people talk about their homes*. Canberra, Australia: Australian Government Publishing Service.
- Depres, C. (1991). The meaning of home: Literature review and directions for future research and theoretical development. *Journal of Architectural and Planning Research*, 8, 96–115.
- Dovey, K. (1985). Home and homelessness. In I. Altman & C. M. Werner (Eds.), *Home environments* (Vol. 8, pp. 33–61). New York: Plenum Press.
- Dunn, W., Haney McClain, L., & Youngstrom, M. J. (1998). The ecology of human performance. In M. E. Neistadt & E. B. Crepeau (Eds.), *Willard and Spakeman's occupational therapy* (pp. 531–535). Philadelphia: Lippincott-Raven.
- Faletti, M. V. (1984). Human factors research and functional environments for the aged. In I. Altman, M. Powell Lawton, & J. F. Wohlwill (Eds.), *Elderly people and the environment*. New York: Plenum Press.
- Fange, A., & Iwarsson, S. (2005). Changes in ADL dependence and aspects of usability following housing adaptation: A longitudinal perspective. *The American Journal of Occupational Therapy*, 59, 296–304.
- Faulkner, D., & Bennett, K. (2002). *Linkages among housing assistance, residential (re) location and the use of community health and social care by old-old adults: Shelter and non-shelter implications for housing policy development*. Sydney, Australia: Australian Housing and Urban Research Institute.
- Giltin, L., Swenson Miller, K., & Boyce, A. (1999). Bathroom modifications for frail elderly renters: Outcomes of a community based program. *Technology and Disability*, 10, 141–149.

- Gitlin, L. N., Corcoran, M., & Leinmiller-Eckhardt, S. (1995). Understanding the family perspective: An ethnographic framework for providing occupational therapy in the home. *American Journal of Occupational Therapy, 49*, 802–809.
- Gitlin, L. N., Corcoran, M., Winter, L., Boyce, A., & Hauck, W. W. (2001). A randomized, controlled trial of a home environmental intervention: Effect on efficacy and upset in caregivers and on daily function of persons with dementia. *The Gerontologist, 41*, 4–14.
- Gray, L. (2001). *Two year review of aged care reforms*. Canberra, Australia: Department of Health and Aged Care.
- Hawkins, R., & Stewart, S. (2002). Changing rooms: The impact of adaptations on the meaning of home for a disabled person and the role of occupational therapists in the process. *British Journal of Occupational Therapy, 65*, 81–87.
- Heumann, L. F., & Boldy, D. P. (Eds.). (1993). *Aging in place with dignity: International solutions relating to the low income and frail elderly*. Westport, CT: Praeger Publishers.
- Heywood, F. (2004). The health outcomes of housing adaptations. *Disability & Society, 19*, 129–143.
- Heywood, F. (2005). **Adaptation: Altering the house to restore the home**. *Housing Studies, 20*, 531–547.
- Holm, M. B., Rogers, J. C., & Stone, R. G. (1998). Person–Task–Environment interventions: A decision making guide. In M. E. Neistadt & E. B. Crepeau (Eds.), *Willard and Spakeman's occupational therapy* (9th ed., pp. 471–499). Philadelphia: Lippincott-Raven.
- Lanspery, S., Callahan, J. J. J., Miller, J. R., & Hyde, J. (1997). Introduction: Staying put. In S. Lanspery & J. Hyde (Eds.), *Staying put: Adapting the places instead of the people*. Amityville, NY: Baywood Publishing Company, Inc.
- Lanspery, S., & Hyde, J. (Eds.). (1997). *Staying put: Adapting the places instead of the people*. Amityville, NY: Baywood Publishing Company, Inc.
- Lund, M. L., & Nygard, L. (2004). Occupational life in the home environment: The experiences of people with disabilities. *Canadian Journal of Occupational Therapy, 71*, 243–251.
- Mann, W. C., Ottenbacher, K. J., Fraas, L., Tomita, M., & Granger, C. V. (1999). Effectiveness of assistive technology and environmental interventions in maintaining independence and reducing home care costs for the frail elderly. *Archives of Family Medicine, 8*, 207–217.
- Nocon, A., & Pleace, N. (1997). ‘Until Disabled People get Consulted . . .’: the role of occupational therapy in meeting housing needs. *British Journal of Occupational Therapy, 60*(3), 115–122.
- Oswald, F., & Wahl, H. (2005). **Dimensions of the meaning of home in later life**. In G. D. Rowles & H. D. Chaudhury (Eds.), *Home and identity in late life: International perspective*. New York: Springer Publishing Company Inc.
- Pastalan, L. A., & Barnes, J. E. (1999). Personal rituals: Identity, attachment to place, and community solidarity. In B. Schwarz & R. Brent (Eds.), *Aging, autonomy and architecture: Advances in assisted living* (pp. 81–89). Baltimore: The John Hopkins University Press.
- Patton, M. P. (2002). *Qualitative Research & Evaluation Methods* (3rd ed.). Thousand Oaks, CA: SAGE Publications.

- Powell Lawton, M. (1985). Housing and living environments of older people. In R. H. Binstock & E. Shana (Eds.), *Handbook of aging and the social sciences* (Vol. 3, 2nd ed., pp. 450–478). New York: Van Nostrand Reinhold Company.
- Pynoos, J. (1993a). Toward a national policy on home modification. *Technology and Disability*, 2, 1–8.
- Pynoos, J., Cohen, E., Davis, L., & Bernhardt, S. (1987). Home modifications: Improvements that extend independence. In V. Regnier & J. Pynoos (Eds.), *Housing the aged: Design directives and policy considerations* (pp. 277–303). New York: Elsevier.
- Pynoos, J., Nishita, C., & Perelman, L. (2003). Advancements in the home modification field: A tribute to M. Powell Lawton. *Journal of Housing for the Elderly*, 17, 105–116.
- Pynoos, J., & Regnier, V. (1997). Design directives in home adaptation. In S. Lanspery & J. Hyde (Eds.), *Staying put: Adapting the places instead of the people* (pp. 41–54). Amityville, NY: Baywood Publishing Company, Inc.
- Pynoos, J., Sanford, J. A., & Rosenfelt, T. (2002). A team approach to home modifications. *OT Practice*, 8, 15–19.
- Rowles, G. D. (2000). Habituation and being in place. *The Occupational Therapy Journal of Research*, 20(Suppl.), 52S–67S.
- Rowles, G. D., & Chaudhury, H. (Eds.). (2005). *Home and identity in late life: International perspective*. New York: Springer Publishing Company Inc.
- Rubinstein, R. L. (1989). The home environments of older people: A description of the psychosocial processes linking person to place. *Journal of Gerontology: Social Sciences*, 44, 545–553.
- Sherman, E., & Dacher, J. (2005). Cherished objects and the home: Their meaning and roles in later life. In G. D. Rowles & H. D. Chaudhury (Eds.), *Home and identity in late life: International perspectives*. New York: Springer Publishing Company.
- Sixsmith, A. J., & Sixsmith, J. A. (1991). Transitions in home experience in later life. *Journal of Architectural and Planning Research*, 8, 181–191.
- Sixsmith, J. (1986). The meaning of home: An exploratory study of environmental experience. *Journal of Environmental Psychology*, 6, 281–298.
- Smith, S. G. (1994). The essential qualities of a home. *Journal of Environmental Psychology*, 14, 31–46.
- Stark, S. (2004). Removing environmental barriers in the homes of older adults with disabilities improves occupational performance. *OTJR: Occupational, Participation and Health*, 24, 32–39.
- Steinfeld, E., & Danford, G. S. (1999). Theory as a basis for research on enabling environments. In E. Steinfeld & G. S. Danford (Eds.), *Enabling environments: Measuring the impact of environment on disability and rehabilitation*. New York: Kluwer Academic/Plenum Publishers.
- Steinfeld, E., & Shea, S. (1993). Enabling home environments: Identifying barriers to independence. *Technology and Disability*, 2, 69–79.
- Steward, B. (2000). Living space: The changing meaning of home. *British Journal of Occupational Therapy*, 63, 105–110.
- Trickey, F., Maltais, M. A., Gosselin, C., & Robitaille, Y. (1993). Adapting older person's homes to promote independence. *Physical and Occupational Therapy in Geriatrics*, 12, 1–14.

- Werner, C. M., Altman, I., & Oxley, D. (1985). Temporal aspects of homes: A transactional perspective. In I. Altman & C. M. Werner (Eds.), *Home environments* (Vol. 8, pp. 1–32). New York: Plenum Press.
- World Health Organization. (2001). *ICIDH-2: International Classification of Functioning and Disability*. Geneva: Author.
- Zola, I. K. (1997). Living at home: The convergence of aging and disability. In S. Lanspery & J. Hyde (Eds.), *Staying put: Adapting the place instead of the people* (pp. 25–40). Amityville, NY: Baywood Publishing Company, Inc.