

The Role of Residential Preferences and Spatial Adaptability in Elderly Residential Satisfaction

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ABSTRACT:

As populations age and "aging in place" becomes a dominant housing policy goal, understanding what makes a residential environment satisfying for older adults has become increasingly important. Drawing on Lawton and Nahemow's person-environment (P-E) fit theory, this study examines how residential preference-environment fit and spatial adaptability jointly predict residential satisfaction among older adults, and how these effects vary with functional health status. Survey data were collected from 280 adults aged 65 and older living in independent homes and assisted living settings. Hierarchical regression results show that residential preference-environment fit ($\beta = .38, p < .01$) and spatial adaptability ($\beta = .33, p < .01$) were both significant predictors of residential satisfaction, together explaining an additional 35% of variance beyond demographic and health controls. The positive association between spatial adaptability and satisfaction was evident across both housing types but was somewhat stronger among residents of independent homes. Preference-environment fit was especially consequential for residents with declining functional health, for whom low fit was associated with markedly lower satisfaction than for those in good health. These findings support person-environment fit theory's central proposition that residential wellbeing in later life depends on the alignment between individual needs and environmental characteristics, and underscore the importance of adaptable housing design as a buffer against the challenges of age-related functional decline. Implications for housing policy and elder-friendly design are discussed.

Keywords: elderly residential satisfaction, person-environment fit, spatial adaptability, aging in place, housing preferences, functional health

1. Introduction

Population aging is reshaping housing demand across much of the world, with a growing majority of older adults expressing a strong preference to remain in their current homes and communities as they age — a phenomenon widely referred to as "aging in place" (Wiles et al., 2012). Yet the residential environments many older adults occupy were rarely designed with later-life needs in mind, creating a potential mismatch between individual capacities and environmental demands. Understanding what drives residential satisfaction among older adults is therefore not only a matter of individual

wellbeing but a pressing concern for housing policy and elder-friendly design.

This study draws on Lawton and Nahemow's (1973) ecological model of aging, which proposes that wellbeing depends on the fit between an individual's competence (physical, cognitive, and sensory capacities) and the press, or demand level, of their environment. Two constructs central to this fit are examined here: residential preference-environment fit, the degree to which an individual's actual housing situation aligns with their stated preferences for housing type, location, and independence; and spatial adaptability, the extent to which the physical living space can be modified or already

accommodates changing functional needs (Iwarsson & Ståhl, 2003). This study asks: (1) do preference–environment fit and spatial adaptability each independently predict residential satisfaction among older adults? and (2) does the importance of preference–environment fit vary with functional health status?

2. Literature Review and Hypotheses

2.1 Person–Environment Fit Theory and Residential Satisfaction

Lawton and Nahemow's (1973) competence–press model proposes that optimal wellbeing occurs when environmental demand is calibrated to an individual's functional competence — neither so undemanding that it fails to engage the person, nor so demanding that it exceeds their capacity. As functional competence often declines with age, a residential environment that was once well-matched can become a source of chronic environmental press, undermining satisfaction and independence (Wahl & Oswald, 2010). Residential satisfaction, accordingly, is not simply a function of housing quality in the abstract, but of the dynamic fit between the older resident and their specific environment (Oswald et al., 2007).

H1: Residential preference–environment fit is positively associated with residential satisfaction among older adults.

2.2 Spatial Adaptability as an Environmental Resource

Spatial adaptability — the physical capacity of a dwelling to be modified (e.g., grab bars, step-free access, flexible room use) in response to changing needs — offers a more concrete, design-based extension of P-E fit theory (Iwarsson & Ståhl, 2003). Environments with higher adaptability allow residents to maintain competence–press balance even as functional capacity changes over time, without requiring relocation. Prior research on home modification and universal design has linked adaptable housing features to greater

autonomy and psychological attachment to place (Rioux, 2005; Rowles, 1983).

H2: Spatial adaptability is positively associated with residential satisfaction among older adults.

2.3 Functional Health as a Boundary Condition

Consistent with the competence–press framework, the consequences of poor person–environment fit should be more pronounced for individuals with lower functional competence, since they have fewer personal resources to compensate for an environment that does not meet their needs (Oswald & Wahl, 2005). Older adults in good functional health may be more able to adapt behaviorally to a suboptimal environment, whereas those with declining health may depend more heavily on the environment itself being well matched to their needs.

H3: The positive association between preference–environment fit and residential satisfaction is stronger among older adults with declining functional health than among those in good functional health.

3. Methodology

3.1 Sample and Procedure

A survey was administered to adults aged 65 and older living in independent (own-home) and assisted living/supported housing settings, recruited through senior community centers, housing associations, and primary care networks. Of 360 individuals invited to participate, 280 usable responses were obtained (response rate = 77.8%). Table 1 summarizes the demographic and housing profile of the sample.

3.2 Measures. Residential preference–environment fit was measured using an 8-item adapted scale assessing the match between stated housing preferences (type, location, level of independence) and current living situation ($\alpha = .85$). Spatial adaptability was measured with a 7-item scale assessing the presence and perceived adequacy of home modification features and layout flexibility ($\alpha = .87$), informed by Iwarsson

and Ståhl's (2003) accessibility and usability concepts. Residential satisfaction, the dependent variable, was measured with a 9-item composite scale covering satisfaction with dwelling, neighborhood, and sense of autonomy ($\alpha = .90$). Self-rated functional health was assessed with a validated 5-item functional status measure and dichotomized into good/excellent versus fair/declining categories for subgroup analysis. All substantive scales used 5-point Likert response formats.

4. Results

Table 1 presents the demographic and housing profile of the sample. Table 2 reports hierarchical regression results predicting residential satisfaction.

Characteristic	Category	n	%
Gender	Male	119	42.5
	Female	161	57.5
Age	65–74 years	128	45.7
	75–84 years	104	37.1
	85 years and above	48	17.1
Living arrangement	Living alone	97	34.6
	Living with spouse/partner	134	47.9
	Living with adult children / multigenerational	49	17.5
Housing type	Own home (independent)	182	65.0
	Assisted living / supported housing	98	35.0
Self-rated functional health	Good to excellent	163	58.2
	Fair to declining	117	41.8
Length of residence	Less than 5 years	61	21.8

Characteristic	Category	n	%
	5–15 years	108	38.6
	More than 15 years	111	39.6

Table 1. Demographic and Housing Profile of Respondents (N = 280)

Predictor	Model 1 (Controls)	Model 2 (+ Preference Fit & Adaptability)
Age	$\beta = -.09$	$\beta = -.05$
Functional health (good = 1)	$\beta = .31^{**}$	$\beta = .19^{**}$
Living alone (yes = 1)	$\beta = -.17^*$	$\beta = -.08$
Residential Preference–Environment Fit	—	$\beta = .38^{**}$
Spatial Adaptability	—	$\beta = .33^{**}$
R ²	.14	.49
ΔR^2	—	.35 ^{**}

Note. N = 280. Dependent variable: residential satisfaction (composite index). Standardized coefficients shown. * $p < .05$, ** $p < .01$.

As shown in Table 2, both residential preference–environment fit ($\beta = .38$, $p < .01$) and spatial adaptability ($\beta = .33$, $p < .01$) were significant positive predictors of residential satisfaction in Model 2, supporting Hypotheses 1 and 2. The addition of these two variables explained a substantial increment in variance beyond demographic and health controls ($\Delta R^2 = .35$, $p < .01$), and the full model accounted for 49% of total variance in residential satisfaction.

Figure 1 illustrates mean residential satisfaction across three levels of spatial adaptability, separately for residents of independent homes and assisted living settings. Satisfaction increased steadily with adaptability level in both housing types, with independent-home residents showing a somewhat steeper gradient, particularly at the highest adaptability level.

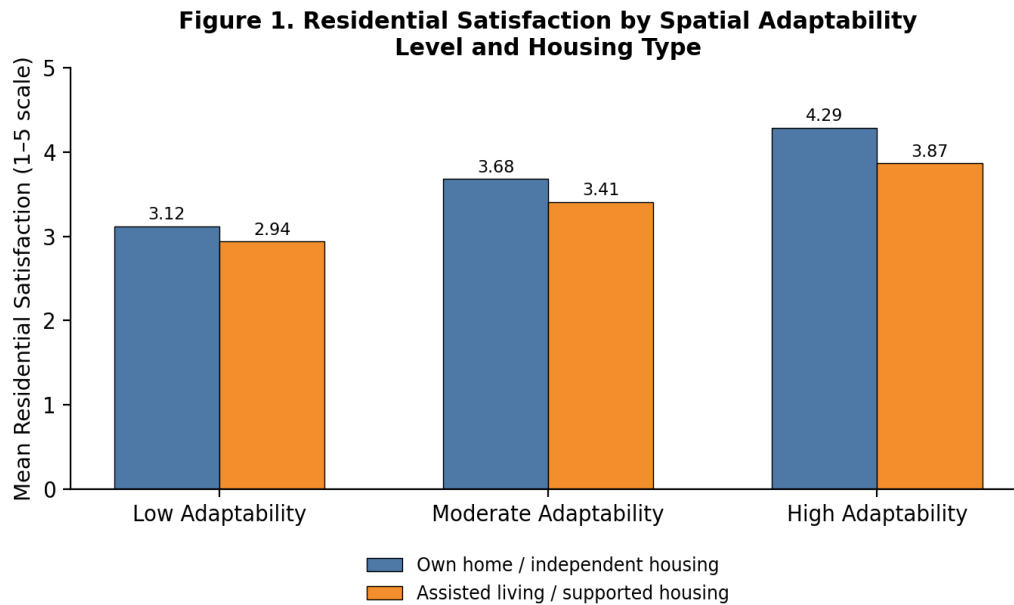


Figure 1. Residential satisfaction by spatial adaptability level and housing type.

Figure 2 displays mean residential satisfaction across three levels of preference–environment fit, separately for respondents in good versus declining functional health. Consistent with Hypothesis 3, the gap in satisfaction between low- and high-fit conditions was considerably wider among respondents with declining functional health than among those in good health, indicating that person–environment fit matters more when functional competence is reduced.

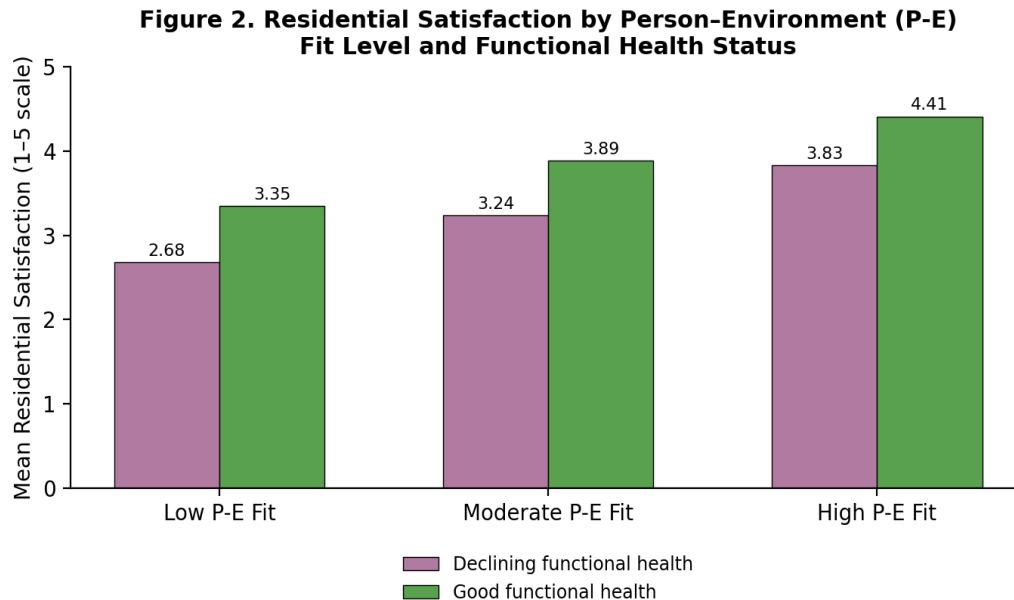


Figure 2. Residential satisfaction by person–environment fit level and functional health status.

. Discussion

This study provides empirical support for Lawton and Nahemow's (1973) competence-press model in a contemporary residential satisfaction context: both the subjective alignment between housing preferences and actual living situation, and the objective physical adaptability of the dwelling, independently predicted how satisfied older adults were with their residential environment. These results extend prior work linking housing and healthy aging (Oswald et al., 2007) by demonstrating that preference fit and physical adaptability operate as distinct, complementary pathways to residential wellbeing rather than a single undifferentiated housing-quality effect.

The finding that preference–environment fit mattered more for residents with declining functional health is consistent with the competence-press framework's core prediction: as personal competence decreases, environmental demand becomes proportionally more consequential for wellbeing (Wahl & Oswald, 2010). This pattern also resonates with qualitative work on the meaning of home in later life, which emphasizes that a well-fitted home supports identity and autonomy in ways that become especially salient as physical capacity changes (Oswald & Wahl, 2005; Rowles, 1983).

5.1 Practical Implications

These findings support policy and design efforts that prioritize adaptable housing — step-free access, modifiable bathrooms, flexible room configurations — as a proactive investment in aging-in-place viability, rather than a reactive modification made only after a health crisis. Because preference–environment fit was especially important for residents in declining health, housing counseling and relocation-decision support for older adults should explicitly

assess both current and anticipated future fit, not only present-day suitability. Assisted living providers may also benefit from incorporating greater unit-level adaptability and preference-matching into placement processes, given that adaptability was linked to satisfaction gains in supported housing settings as well, albeit to a somewhat lesser degree than in independent homes.

5.2 Limitations and Future Research

The cross-sectional design limits causal inference; longitudinal designs following residents through functional health transitions would better capture how the fit–satisfaction relationship evolves over time. Self-report measures of functional health and adaptability, while common in this literature, could be supplemented with objective mobility and home-audit assessments in future studies. Finally, this sample was drawn from a limited set of housing and community contexts; cross-national and cross-cultural replication would help clarify how residential norms and housing systems shape the generalizability of these findings (Golant, 2011).

6. Conclusion

Residential satisfaction among older adults is shaped jointly by how well one's living situation matches personal preferences and by how adaptable that living space is to changing physical needs. These two pathways operate together, and their importance intensifies for older adults experiencing functional decline. As aging-in-place becomes an increasingly central housing policy goal, these findings suggest that supporting residential satisfaction in later life requires attention not only to housing quality broadly defined, but specifically to preference alignment and physical adaptability as design and policy priorities.

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