

## **DETERMINANTS OF HOUSING SATISFACTION FOR OLDER MARRIED AND UNMARRIED WOMEN IN FLORIDA**

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### **Abstract**

*A stepwise discriminant analysis of 242 older Florida women was used to assess differences in housing satisfaction determinants between married and unmarried older women. The most significant determinants among married women were related to size of the home and accommodation of possessions. Among those who were not married, the number of people in the household was the most significant predictor of satisfaction, with those living alone more likely to be satisfied with their housing. Neighborhood satisfaction was an important predictor for both married and unmarried women. Respondents also identified the most satisfying and most dissatisfying aspects of their homes.*

### **Introduction**

Housing satisfaction has generally been recognized as a major determinant of overall well-being (Campbell, Converse, and Rogers, 1976; Golant, 1982; Hempel and Tucker, 1979). This may be particularly true among older women because they tend to spend more time at home than younger members of the population, and because they are more likely to live alone after the death of a spouse. Factors that influence housing satisfaction may also differ for married and unmarried older women. The social supports that are inherent with the presence of a spouse may alter the influence of factors that may affect housing satisfaction.

Housing satisfaction is important to elderly persons everywhere, but is of particular importance in Florida, which has a larger percentage of elderly than most other states (U.S. Bureau of the Census, 1983). Due to the influx of retirees drawn by the mild climate, in addition to those who age in place, this elderly population is expected to increase dramatically over the next few years, putting greater emphasis on the housing needs and problems of the elderly. By 1992, 27 percent of the state's population is expected to be age 60 or over (Ford, 1989). Of these residents, over half (56 percent) of those age 60 and over are women, and of those older residents living alone, over three-fourths (78 percent) are women (U.S. Bureau of the Census, 1983).

Designers of housing facilities for the elderly, as well as developers of universal housing in the community, could be assisted by knowing what aspects of the home contribute most or least to housing satisfaction of older women, and how those needs might differ for older women who live alone. Therefore, the purpose of this study was twofold: to determine differences in determinants of housing satisfaction between married and unmarried older women and to identify the aspects of their housing with which women are most satisfied or most dissatisfied.

### **Theoretical Framework**

Overall well-being is based in part on life satisfaction, of which housing satisfaction is a major component (Campbell, et al., 1976). In order to maintain well-being, women need to seek out or adapt environments to be congruent with their needs. If the woman's needs or capabilities change with age, resulting in lack of congruence, adaptive mea-

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asures must be taken to maintain well-being (Kahana, 1982). Therefore, housing satisfaction (and overall well-being) may be influenced by the congruence between the older woman's needs and the features of her environment.

Many housing characteristics have been related to satisfaction in the general population. Size of the dwelling and amount of space available have been positively linked to housing satisfaction (Kinsey and Lane, 1983; Morris, Crull, and Winter, 1976). Better structural quality also has been related to housing satisfaction (Danes and Morris, 1986; Harris, 1976; Hintz and Null, 1988). Single family housing has been related to satisfaction (Johnson and Abernathy, 1983), along with physical features such as adequate closet and storage space and good kitchen layout (Johnson and Abernathy, 1983). Personal characteristics such as having smaller family size (Rogers and Nikkel, 1979), being older, and having higher household income also have been related to housing satisfaction (Campbell, et al., 1976; Galster and Hesser, 1981; Morris and Winter, 1978; Speare, 1974).

Neighborhood satisfaction has been found to have a very significant positive impact on housing satisfaction (Lansing, Marans, and Zehner, 1970). Specific characteristics of neighborhoods which have been related to housing satisfaction include the level of maintenance of the neighborhood and the social characteristics of the neighbors (Lansing and Marans, 1969; Zehner, 1971), control over social interaction (Zimring, 1981), and perception of crime in the neighborhood (White, Kasl, Zahner, and Will, 1987).

Studies of housing satisfaction among the elderly have identified good physical health (Findlay and Morris, 1976), good mental health, and activity level (mobility) as significant predictors of housing/neighborhood satisfaction (Windley and Scheidt, 1983). Dwelling features such as good lighting, comfortable temperature, and adequacy of space have also been related to satisfaction among the elderly (Windley and Scheidt, 1983). Tenure may have a lesser effect on the housing satisfaction of the elderly (Whiteford and Morris, 1986), although it has been well established as an overall determinant of housing satisfaction (Dillman, Tremblay, and Dillman, 1979; Golant, 1982; Morris, et al., 1976; Tremblay, 1981).

From the review of literature, ten variables were selected for inclusion in the analysis of determinants of housing satisfaction, along with nine other exploratory variables. (See Table 1). Three personal variables selected from the literature, age, health, and actual income, were hypothesized to have a positive relationship with housing satisfaction. Education was hypothesized to be positively related to housing satisfaction because of the positive relationship which has been found between education and community satisfaction among single women (Cook, 1988). An exploratory variable, perceived adequacy of income, was also hypothesized to have a positive relationship to housing satisfaction. Number of living children was added to the equation to determine if the social support offered by family members influences housing perception, particularly among women with no spouse present. Personality type (introvert/extrovert) was used to determine whether more socially directed people have different housing perceptions or expectations than less socially oriented persons.

Based on the literature, several housing-related variables were selected for inclusion in the analysis. It was hypothesized that tenure would not have a significant effect on housing satisfaction for older women. However, variables related to space and perception of space were hypothesized to be significant: actual number of rooms, structure type, whether women felt the size of the home was adequate for their needs, and whether they felt they had the right amount of things in their home. Number of people in the household was added as an exploratory variable because it may affect both perception of space and social factors. Two other exploratory variables were used to determine if activities within the home influence satisfaction. These variables included whether the person had any hobbies and whether she had any collections.

Neighborhood satisfaction was hypothesized to have a strong influence on housing satisfaction. Four variables related to neighborhood influence on satisfaction were also

Table 1. Variables Selected as Possible Determinants of Housing Satisfaction.

	<b>From Literature</b>	<b>Exploratory Variables</b>
<b>Personal Variables</b>	Age Health Actual Income Education	Perceived adequacy in income Number of living children Introvert/Extrovert
<b>Housing Variables</b>	Tenure Number of rooms Structure Type Adequacy of House Size Right amount of things	Number of people in household Hobbies Collections
<b>Neighborhood Variables</b>	Neighborhood satisfaction	Location Date of last move Facility for elderly

used. Location was added to determine what effect, if any, would be evident from living in communities of differing sizes. Whether or not the dwelling was part of a project for the elderly was added as an exploratory variable because this type of community may also affect social influences on satisfaction. Date of last move was also included; however, no direction of relationship was hypothesized for this variable. The familiarity of a house and neighborhood inherent with longer residency may contribute to satisfaction. The benefits of living in a newer and more appropriately sized structure, however, may also contribute to satisfaction.

### Methodology

#### **Data Source**

The data were collected in early 1990 using a convenience sample of women age 55 and over who resided in Florida at the time of data collection. Questionnaires were distributed by county home economics extension agents to older members of 16 Extension Homemakers groups and women living in two retirement communities. Each prospective respondent was given a questionnaire and a stamped pre-addressed return envelope. Because participation was voluntary, no attempt was made to contact nonrespondents. No response rate is available because information to determine eligibility was not collected from those who did not volunteer. Completed questionnaires were returned by 242 women age 55 and over, including 150 who were married and 92 who were not married.

In order to better represent the state population, an attempt was made to distribute questionnaires to prospective respondents in each area of the state. About 22.6 percent of respondents lived in three north Florida counties (Duval, Nassua, and Leon), 35 percent lived in six central Florida counties (Volusia, Hillsborough, Lake, Pinellas, Pasco, and Allacua), and 24.3 percent lived in seven south Florida counties (Broward, St. Lucie, Martin, Desoto, Lee, Palm Beach, and Dade). The remaining 8.6 percent of the respondents did not include their county of residence, or gave a response such as "U.S.A." or "Florida."

#### **Characteristics of Respondents**

Personal characteristics of the respondents are given in Table 2. Sixty-two percent of respondents were married. The majority of those who were not married were widowed (33 percent of total sample). Of the remaining 5 percent, about half were divorced and half had never married. Respondents ranged in age from 55 to 92, with a mean age of

66.6 for married respondents and 72.3 for unmarried respondents. Household size ranged from one to 13 with a mean of 2.19 for married women, and a mean of 1.26 for unmarried women. Only four households contained more than three persons. Most respondents had living children, including one with 13. The mean number of living children was 2.46 for married women and 1.97 for unmarried women. The one very large family only skewed the means slightly. Leaving out the large family produced means of 2.09 for household size for married women, and 2.40 for mean number of living children for married women. Educational level ranged from less than eighth grade to graduate degrees, with the majority having a high school diploma or some college. Overall, the unmarried women tended to be slightly better educated than the married women. Nearly all of the women surveyed were retired or were not working. Only a few were currently employed. About half of the women rated their health as average for their age; however, about 40 percent considered their health to be very good. The majority of respondents tended to be extroverts, including over three-fourths of married women and over two-thirds of unmarried women.

Household income ranged from below \$10,000 per year to over \$80,000 per year. The married respondents, however, tended to be more affluent than the unmarried. Less than 24 percent of married respondents had household incomes below \$20,000, compared to nearly 69 percent of the unmarried women. Less than 13 percent of married women considered their income to be inadequate for their needs, while nearly 32 percent of unmarried women felt their income was inadequate.

Compared to the population of older women in Florida, the sample was somewhat overrepresented in the 65-74 age category, and underrepresented in the younger and older age categories. Women in these age categories are probably less likely to take part in homemaker groups or live in retirement communities where the surveys were distributed. The respondents were somewhat more likely to be living alone (33 percent compared to 27 percent of the state population of older women) and more likely to be married (62 percent of the sample; 49 percent of the state population of older women). Older women in Florida are generally less educated than the sample respondents as well. In the sample only 8.3 percent of women had less than a 12th grade education, whereas in the state population, approximately 45 percent of older women have less than a 12th grade education (U.S. Bureau of the Census, 1983). The respondents may have been healthier and more affluent than the average older woman in Florida as well, although no current comparison data were available.

The housing characteristics of respondents are shown in Table 3. The location of respondents' homes was fairly evenly distributed among rural, small town, small city, medium city, and large city. The majority of respondents lived in community-based housing; however, about one in five lived in retirement communities and nearly as many of the unmarried women lived in apartments for senior citizens. Most married respondents lived in single family detached housing or mobile homes, which they owned. Although the majority of unmarried women were also homeowners, they were more likely to be living in mobile homes or apartments. Most respondents no longer had a mortgage on their home. About 80 percent of both married and unmarried women were satisfied with their neighborhood.

Over 60 percent of respondents had moved within the last decade. Others had lived in the same home for 40 years or more. Their homes were fairly large with most having two or three bedrooms and two bathrooms. The mean number of bedrooms was 2.54 for married women and 2.16 for unmarried women. Married women tended to live in larger houses than unmarried women, with a mean size of 10.4 rooms and 8.4 rooms, respectively. Home size was based on the total number of rooms in the home, including all bedrooms, bathrooms, living spaces, and storage spaces such as garage or store room (not closets). Approximately 80 percent of both married and unmarried women perceived their housing to be of adequate size for their needs. About half of both groups felt that they had about the right amount of things in their homes. Married women were

Table 2. Personal characteristics of respondents by marital status.

Personal Variable	Married (N=150)		Not Married (N=92)	
	Number	Percent	Number	Percent
<b>Age</b>				
55-59	23	15.3	4	4.3
60-64	25	16.7	11	12.0
65-69	61	40.7	17	18.5
70-74	26	17.3	26	28.2
75-74	9	6.0	19	20.7
80 and over	6	4.0	15	16.3
Mean Age	66.6		72.3	
<b>Household Size</b>				
1 (person)	3	2.0	77	83.7
2	134	89.3	10	10.9
3	10	6.7	3	3.3
4 or more	3	1.4	2	2.2
unknown	1	0.7	0	0.0
Mean Household Size	2.2		1.3	
<b>Number of Children</b>				
0	15	10.0	18	19.6
1	20	13.3	19	20.7
2	52	34.7	28	30.4
3	38	25.3	11	12.0
4 or more	25	16.8	16	17.4
Mean # of Children	2.5		2.0	
<b>Education</b>				
less than grade 12	10	6.7	10	10.9
high school graduate	53	35.3	21	22.8
some college	56	37.3	40	43.5
college graduate	18	12.0	7	7.6
graduate school	13	8.6	14	15.3
<b>Employment Status</b>				
employed part time	8	5.3	6	6.5
employed full time	3	2.0	4	4.3
retired or not employed	139	92.7	82	89.2
<b>Health</b>				
very good	63	42.0	34	37.0
average for age	74	49.3	50	54.3
fair	13	8.7	7	7.6
poor	0	0.0	1	1.1
<b>Annual Household Income</b>				
less than \$10,000	5	3.3	31	33.7
\$10,000-19,999	30	20.0	32	34.8
\$20,000-29,999	46	30.7	17	18.5
\$30,000-39,999	33	22.0	5	5.4
\$40,000-49,999	12	8.0	4	4.3
\$50,000 or more	14	9.3	1	1.1
unknown	10	6.7	2	2.2
<b>Adequate Income</b>				
very inadequate	10	6.7	13	14.1
inadequate	9	6.0	16	17.4
adequate	101	67.3	51	55.4
very adequate	29	19.3	12	13.0
unknown	1	0.7	0	0.0
<b>Personality Type</b>				
introvert	33	22.0	29	31.5
extrovert	116	77.3	63	68.5
unknown	1	0.7	0	0.0

Note: Percentages may not sum to 100 due to rounding and nonresponse to specific questions.

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Table 3. Housing characteristics of respondents by marital status.

Housing Variable	Married (N=150)		Not Married (N=92)	
	Number	Percent	Number	Percent
<b>Location</b>				
rural	29	19.3	14	15.2
small town <20,000	22	14.7	16	17.4
small city <50,000	34	22.7	26	28.3
medium city <300,000	29	19.3	20	21.7
large city >300,000	30	20.0	15	16.3
unknown	6	4.0	1	1.1
<b>Facilities for Elderly</b>				
retirement community	33	22.0	18	19.5
apartments for elderly	8	5.3	17	18.5
neither of the above	109	72.7	57	62.0
<b>Housing Type</b>				
single-family detached	99	66.0	42	45.7
rowhouse/townhouse	18	12.0	2	2.2
mobile home	21	14.0	19	20.7
apartment or efficiency	11	7.3	28	30.4
unknown	1	0.7	1	1.1
<b>Tenure</b>				
own - paid in full	98	65.3	47	51.1
own - mortgage	35	23.3	13	14.1
rent or lease	9	6.0	20	21.7
someone else owns, no rent	1	0.7	3	3.3
own mobile home, rent lot	7	4.7	8	8.7
unknown	0	0.0	1	1.1
<b>Date of Last Move</b>				
before 1960	13	8.8	14	14.4
1960-1969	13	8.5	10	10.9
1970-1979	24	16.1	15	16.5
1980 or later	97	64.6	53	52.2
unknown	3	2.0	5	5.5
<b>Number of Bedrooms</b>				
1	7	4.7	21	22.8
2	64	42.7	42	45.7
3	68	45.3	23	25.0
4 or 5	10	6.7	6	6.5
unknown	1	0.7	0	0.0
<b>Adequate Housing Size</b>				
very inadequate	13	8.7	8	8.7
inadequate	16	10.7	9	9.8
adequate	74	49.3	52	56.5
very adequate	47	31.3	23	25.0
<b>Hobbies</b>				
yes	131	87.3	69	75.0
no	19	12.7	23	25.0
<b>Collections</b>				
yes	111	74.0	58	63.0
no	39	26.0	34	37.0
<b>Right Amount of Things</b>				
strongly disagree	12	8.0	11	12.0
disagree	28	18.7	19	20.7
no opinion	31	20.6	15	16.3
agree	63	42.0	29	31.5
strongly agree	16	10.7	18	19.6
<b>Neighborhood Satisfaction</b>				
very dissatisfied	9	6.0	6	6.5
dissatisfied	6	4.0	1	1.1
neither	17	11.3	9	9.8
satisfied	68	45.3	40	43.5
very satisfied	50	33.3	36	39.1

Note: Percentages may not sum to 100 due to rounding.

more likely to have collections (74 percent) than unmarried women (63 percent). Three-fourths of the unmarried women and 87 percent of the married women had at least one hobby.

### **Measurement of Variables**

Housing satisfaction was measured by one general question scored on a five point scale ranging from very dissatisfied to very satisfied. This single measure of the respondent's perception of housing satisfaction may be more accurate than a weighted index of satisfaction because weighting may be specific to each family (Galster, 1987; Morris, et al., 1976). A single measure was also used to determine how satisfied the respondent was, in general, with her current neighborhood. Two open-ended questions were used to identify what aspect of the home the respondent was most satisfied and with what aspect of the home she was most dissatisfied with. For descriptive analysis, the open-ended responses were grouped into categories of housing features, neighborhood features, size or space, and miscellaneous aspects.

General demographic variables were used in the analyses. Age, number of living children, and number of persons living in the household were scored as the actual number listed by the respondent. Education was measured on a seven point scale ranging from less than eighth grade to graduate degree, and location was measured on a five-point scale according to area population. Actual income was measured on a nine-point scale of yearly household income. A four-point measure of the respondent's perception of adequacy of income was also used because income may be relative to other socioeconomic variables and perceptions.

The variable for number of rooms in the home was a composite score of number of bedrooms, plus number of bathrooms, plus all other living spaces and enclosed storage spaces (garage, store rooms, enclosed porches, etc.) in the home checked off by the respondent on a list of all possible rooms. Structure type was recorded as a dichotomous variable for single family (detached house, rowhouse, or mobile home) or apartment (including efficiency). Tenure was also recorded as a dichotomous variable for owned or not owned. Living in a facility for the elderly, including retirement communities, was coded as a dichotomous variable with community-based housing as the other response. Perception of the adequacy of home size was measured on a four-point scale ranging from very inadequate to very adequate.

Several related variables which may have an effect on housing satisfaction were coded as dichotomous, including whether or not the respondent had any hobbies, whether or not she had any collections, and whether she scored as an extrovert or introvert on a 10-question personality scale (Kiersey and Bates, 1978). Perception of health was measured on a four-point scale ranging from very good to poor. Date of last move was based on the actual year of the respondent's last move. Perception of the right amount of things in the home was scored on a five point Likert-type scale ranging from strongly agree to strongly disagree.

The questionnaire was pretested on a convenience sample of 20 older women living in Tallahassee, Florida. Each participant completed the questionnaire and then discussed the questions with the research assistant. Only minor modifications were deemed necessary. Larger typeface was added to accommodate older readers who may have visual difficulties.

### **Analysis**

For analysis of determinants of housing satisfaction, the respondents were grouped into three categories of dissatisfied (very dissatisfied or dissatisfied), neither satisfied nor dissatisfied, and satisfied (very satisfied or satisfied). Three groups were used to allow curvilinear relationships to be determined. Other studies of residential satisfaction have noted that the desirability of some features may level off once a certain level of satisfaction has been reached (Galster, 1987). Level of satisfaction with the size of the home, for example, may be curvilinear; a small home may lead to housing dissatisfac-

tion because it does not accommodate the tenants activities and possessions, or a large home may lead to dissatisfaction because it is too difficult to maintain. By forcing the sample into two groups, satisfied and not satisfied, these curvilinear relationships would be disguised, resulting in possible misinterpretation of the data.

Stepwise discriminant analysis was used to determine which variables could best predict the characteristics of married and unmarried older women who would be most likely to be satisfied with their homes. Separating the sample into two separate analyses is consistent with Galster's (1987) contention that different household types should be analyzed separately. Disaggregating the households gives a much more accurate picture than simply using marital status as one of the discriminating variables.

Predictor variables were selected based on the review of literature and exploratory variables rather than on prior probabilities, because prior probabilities may not reflect the attributes of a particular case and may be influenced by the bias of the non-random sample. Wilk's lambda was used to indicate significant differences in group means. The standardized canonical discriminant function coefficients were used to assess the relative importance of variables in relation to each other. Group means were used to determine the direction of relationships because the signs of discriminant function coefficients are arbitrary and are not indicative of the direction of relationships.

The entire sample of married or unmarried respondents was used to establish determinants in both analyses, rather than dividing the sample into a developmental sample and a validation sample. The main purpose of the validation sample is to ensure maximum generalizability to the larger population; however, because the sample was non-random any determinants identified may be specific to this sample and may not be generalizable to the larger population. The significance level was set at .05.

The linear discriminant function assumes that predictor variables have a multivariate normal distribution; however, it also works with dichotomous variables (Moore, 1973; Norusis, 1988). Six of the 19 variables in this analysis were dichotomous. The number of discriminating variables is not limited, provided the number of cases exceeds the number of variables by at least two or more (Klecka, 1980).

The discriminant procedure automatically eliminates all cases with a missing value on any of the predictor variables (Norusis, 1988). Therefore, the discriminant analysis was based on 128 married and 75 unmarried women. The most satisfying and most dissatisfying aspects of housing were based on the entire sample of 150 married and 92 unmarried women.

## Findings

### *Discriminant Analysis of Housing Satisfaction for Married Women*

The results of the discriminant analysis to determine variables which would best predict the characteristics of married women satisfied or dissatisfied with their homes are given in Table 4. The univariate analysis shows that taken individually, only five variables were significantly related to housing satisfaction. However, when all 19 variables were considered in relation to one another in the multivariate analysis, 10 variables were significant. The best predictors of housing satisfaction among married women included the following variables: having the right amount of things in the home, adequacy of housing size for activities and possessions, satisfaction with the neighborhood, whether they had collections, the number of rooms in the home, personality type, structure type, actual income, health, and whether they had hobbies.

According to the predictors determined by this analysis, married women who were satisfied with their housing perceived their housing size to be adequate, liked their neighborhood, and felt that they had about the right amount of things in their home without too many collections. They were somewhat more likely to be introverts than those who were dissatisfied and had slightly lower incomes. The relationship of number of rooms to satisfaction was curvilinear, with the number of rooms being nearly equal for

satisfied and dissatisfied and smaller for those who were neither satisfied nor dissatisfied. Level of housing satisfaction also had a curvilinear relationship to structure type, hobbies, and health. Both satisfied and dissatisfied women were more likely to live in single-family housing, to have hobbies, and to be in better health than those who were neither satisfied nor dissatisfied with their housing. Six of the ten significant variables relate to housing size and use of space. The standardized canonical discriminant function coefficients indicate that the strongest predictors of housing satisfaction among married women were whether they felt they had about the right amount of things in their home, whether they perceived the housing to be adequate size for their activities and whether they were satisfied with their neighborhood.

Table 4. Discriminant analysis results for housing satisfaction of married women (N=128).

Discriminating Variables	Univariate Analysis F ratio (2, 125)	Discriminant Analysis - Predictive Variables	
		Wilk's Lambda	Standardized Canonical Discriminant Function Coefficient
Right amount of things	8.176***	0.6865***	0.5933
Neighborhood satisfaction	9.278***	0.8707***	0.4725
Adequate housing size	8.391***	0.7929***	0.4174
Have collections	1.218	0.6193***	-0.3194
Introvert/extrovert	0.623	0.6018***	-0.3091
Structure type	3.211*	0.6619***	0.2932
Number of rooms	5.114**	0.7386***	0.2838
Actual income	0.737	0.5902***	-0.2479
Health	2.909	0.6393***	-0.2048
Have hobbies	1.051	0.5801***	-0.1398
Adequate income	1.862		
Age of respondent	0.804		
Education	0.403		
Number of children	0.283		
Tenure	0.161		
Facility for elderly	0.371		
People in household	0.376		
Location	1.442		
Date of last move	0.547		

\* p<.05, \*\* p<.01, \*\*\* p<.001

Note: Signs of discriminant function coefficient are arbitrary and are not indicative of the direction of relationship.

#### ***Discriminant Analysis of Housing Satisfaction for Unmarried Women***

The results of the discriminant analysis of variables predictive of housing satisfaction for unmarried older women are given in Table 5. The univariate analysis shows that taken individually, only one of the variables was significantly related to housing satisfaction. Eight of the variables, however, were significant predictors of housing satisfaction when examined in relation to each other in the multivariate analysis. The significant variables included number of people in the household, neighborhood satisfaction, perception of adequacy of housing size for activities, age, number of living children, actual income, tenure, and whether or not they had hobbies.

Unmarried women who were satisfied with their housing tended to be older, live alone, like their neighborhoods and perceive their housing size to be only slightly less adequate than those who were dissatisfied. Curvilinear relationships were found between level of satisfaction and number of living children, actual income, tenure, and whether or not they had hobbies. Those in the dissatisfied and satisfied groups tended to have more children, while those in the neither satisfied nor dissatisfied group had the least number of children. The relationship between level of satisfaction and tenure was also curvilinear, with those in the dissatisfied and satisfied groups being more likely to

own their homes. Hobbies were most prevalent among the women who were neither satisfied nor dissatisfied with their housing.

Actual income was slightly lower for both satisfied and dissatisfied unmarried women and higher for those in the middle group. The standardized canonical discriminant function coefficients indicate that the strongest predictors of housing satisfaction for older unmarried women were the number of people in the household and satisfaction with the neighborhood.

Table 5. Discriminant analysis results for housing satisfaction of unmarried women (N=75).

Discriminating Variables	Univariate Analysis F ratio (2, 125)	Discriminant Analysis - Predictive Variables	
		Wilk's Lambda	Standardized Canonical Discriminant Function Coefficient
Neighborhood satisfaction	11.531*	0.7574*	1.1169
People in household	2.321	0.6444*	-0.7598
Have hobbies	0.178	0.5431*	0.3639
Actual income	0.027	0.5196*	0.3418
Adequate housing size	0.039	0.5811*	-0.3073
Tenure	1.488	0.5635*	-0.2331
Age of respondent	0.626	0.5012*	0.1817
Number of children	3.304	0.6044*	-0.0886
Right amount of things	0.273		
Structure type	1.326		
Number of rooms	0.429		
Health	0.085		
Adequate income	1.539		
Education	0.191		
Facility for elderly	0.034		
Location	1.494		
Date of last move	0.829		
Introvert/extrovert	3.116		
Have collections	0.058		

\* p<.05, \*\* p<.01, \*\*\* p<.001

Note: Signs of discriminant function coefficient are arbitrary and are not indicative of the direction of relationship.

### ***Most Satisfying Aspects of Housing***

Respondents were asked to identify the one aspect of their home with which they were most satisfied. Their open-ended responses were grouped into three neighborhood aspects, nine housing design aspects, and six miscellaneous aspects of housing. The results of this classification are given in Table 6.

Size of the home was the most frequently mentioned aspect of housing satisfaction for both married and unmarried women. Location was the second most frequent response, although for unmarried women comfort/convenience was mentioned equally as often as location. Layout of the home was important for many of the married women. Unmarried women were more likely to list a specific room, such as the kitchen or living room, as being the aspect of their home with which they were most satisfied. For both groups of women, housing design features accounted for more than 60 percent of the responses, compared with approximately 22 percent accounted for by neighborhood aspects.

### ***Most Dissatisfying Aspects of Housing***

Respondents were also asked to identify the one aspect of their homes with which they were most dissatisfied. Over 33 percent of unmarried women and 18 percent of married women could not think of anything they were dissatisfied with; however, the remaining responses were quite diverse, as shown in Table 7.

Table 6. Most satisfying aspects of housing.

Aspect of Housing	Married (N=150)		Not Married (N=92)	
	Number	Percent	Number	Percent
Housing design aspects				
layout	19	12.7	4	4.3
size	36	24.0	19	20.7
easy care	13	8.7	3	3.3
specific room	11	7.3	9	9.8
comfort/convenience	13	8.7	16	17.4
privacy	1	0.7	3	3.3
view	3	2.0	2	2.2
no steps	1	0.7	1	1.1
air conditioning	1	0.7	0	0.0
<b>Total</b>	<b>98</b>	<b>65.3</b>	<b>57</b>	<b>62.0</b>
Neighborhood aspects				
location	31	20.7	15	16.3
climate	0	0.0	3	3.3
neighbors				
<b>Total</b>	<b>3.3</b>	<b>22.0</b>	<b>19</b>	<b>20.7</b>
Miscellaneous				
own/affordable	4	2.7	4	4.3
security	1	0.7	4	4.3
new structure	3	2.0	0	0.0
retirement home advantages	1	0.7	2	2.2
been there a long time	3	2.0	1	1.1
everything				
<b>Total</b>	<b>19</b>	<b>12.7</b>	<b>16</b>	<b>17.4</b>

Note: Percentages may not sum to 100 due to rounding.

Responses were grouped into eight aspects related to home size, six aspects related to neighborhoods, nine aspects related to housing design features, and five miscellaneous aspects. For married women, the most frequent response listed was that the home was too small, followed by maintenance/yardwork problems. Maintenance/yardwork was the most frequent type of response for unmarried women. Overall, size was a much more frequent source of dissatisfaction for married women, accounting for 40 percent of their responses, compared with less than 26 percent of responses of unmarried women. Housing design features accounted for approximately 19 percent of responses for both groups.

### Discussion and Implications

The variables hypothesized to be significant predictors of housing satisfaction among older women were partially supported by the results of this analysis. It was expected that personal variables such as age, education, health, and actual income would be predictive of satisfaction. All of these variables except education had a significant effect. Age, however, had a significant effect only among the women who were not married, and health had a significant effect only for those who were married. Actual income was a predictor of housing satisfaction for both groups. Perception of income as adequate for their needs, however, was not significant for either married or unmarried women, as had been predicted. Although one's spending patterns and what one is accustomed to may be important to well-being, substantial amounts of money are required to maintain a home. The slightly lower incomes of satisfied women may indicate, however, that money doesn't necessarily buy happiness.

Tenure had no significant effect, as hypothesized, for married women; however, tenure did have a significant curvilinear relationship to housing satisfaction for unmarried women. Owning one's home may be seen as a benefit in maintaining control of one's life, but also may be a burden in terms of home maintenance and lack of flexibility in adapting housing to changing needs of the elderly.

Table 7. Most dissatisfying aspects of housing.

Aspect of Housing	Married (N=150)		Not Married (N=92)	
	Number	Percent	Number	Percent
Nothing	27	18.0	31	33.7
Size of home				
too small	24	16.0	8	8.7
too big	2	1.3	0	0.0
small yard	5	3.3	1	1.1
big yard	4	2.7	0	0.0
inadequate storage	12	8.0	8	8.7
only one bath	7	4.7	6	6.5
no garage	3	2.0	0	0.0
no screened porch	3	2.0	1	1.1
<b>Total</b>	<b>60</b>	<b>40.0</b>	<b>24</b>	<b>26.1</b>
Housing design aspects				
specific room	13	8.7	4	4.3
mechanical systems	2	1.3	3	3.3
furnishings/appliances	4	2.7	2	2.2
stairs/steps	5	3.3	0	0.0
dark/windows	2	1.3	2	2.2
poor view	0	0.0	1	1.1
poor building quality	2	1.3	3	3.3
inconvenient	1	0.7	1	1.1
lack of privacy	0	0.0	1	1.1
<b>Total</b>	<b>29</b>	<b>19.3</b>	<b>17</b>	<b>18.5</b>
Neighborhood aspects				
too far from family/friends	3	2.0	2	2.2
no transportation	0	0.0	1	1.1
undesirable neighborhood	3	2.0	0	0.0
traffic	3	2.0	0	0.0
too far from services	2	1.3	1	1.1
climate	1	0.7	1	1.1
<b>Total</b>	<b>12</b>	<b>8.0</b>	<b>5</b>	<b>5.4</b>
Miscellaneous				
everything	1	0.7	0	0.0
maintenance/yardwork	15	10.0	14	15.2
management	3	2.0	0	0.0
being alone	0	0.0	1	1.1
property taxes	3	2.0	0	0.0
<b>Total</b>	<b>22</b>	<b>14.7</b>	<b>15</b>	<b>16.3</b>

Note: Percentages may not sum to 100 due to rounding.

Structure type and number of rooms in the home were significant predictors of housing satisfaction only for married women. In addition to actual size, perception of adequate housing size as a significant predictor emphasizes the importance of appropriately sized dwellings for older women.

The significance of the perception of having the right amount of things in the home also emphasizes the need for adequate storage and space for possessions. Possessions have been found to provide a link to the important people in older people's lives because of the memories they signify (Csikszentmihalyi and Rochberg-Halton, 1981). The exploratory variable, collections, was significant for married women; however, those who were satisfied with their housing tended to have fewer collections. This relationship may have been affected by the problem of storing and taking care of large collections. Many of the housing aspects women were most dissatisfied with concerned lack of space and maintenance problems.

As expected, neighborhood satisfaction was a significant determinant of housing satisfaction for both married and unmarried women. The exploratory neighborhood-related variables (location, date of last move, and whether the home was in a facility or community for the elderly) were not significant predictors of housing satisfaction for either group. Other neighborhood aspects which were beyond the scope of this study may play

a role in the significance of neighborhood satisfaction, such as crime, access to services, and social climate.

The variables relating to people (number of people in the household and number of living children) were significant predictors of housing satisfaction for unmarried women, but not for married women. Although no direction was hypothesized for these relationships, the results were somewhat surprising. One might expect that women without husbands might be more satisfied if they lived with others or had children to provide social supports. This may be true for life satisfaction, but was not found to be the case for housing satisfaction. The unmarried women who were satisfied with their housing were more likely to live alone. Respondents were not asked to identify the relationship of other household members, so it is not known how many women actually lived with their children. Unmarried women who shared housing, however, may have been more dissatisfied because of perceived lack of control or crowding, particularly if they had moved into the home of other family members.

For unmarried women, the relationship of number of living children to housing satisfaction was curvilinear, with satisfied and dissatisfied having more children than those who were neither satisfied nor dissatisfied. Those who were most dissatisfied with their housing, however, had the most children. This dissatisfaction may be partially explained by the smaller size of their homes. The unmarried women were more likely to be living in smaller apartments which provide little space for entertaining family and other visitors. If a woman has always enjoyed the role of family matriarch hosting family gatherings, she may be forced to relinquish this role if her small apartment will not accommodate such events.

The other two exploratory variables were inconclusive. Women who have hobbies might be expected to be more satisfied with their housing because of the involvement with some interesting activity, or dissatisfied because of space limitations which may not accommodate the hobby. Although this variable was significantly related to housing satisfaction for both married and unmarried women, the curvilinear relationship was opposite in direction for the two groups. Among married women, those dissatisfied with their housing were the most likely to have hobbies, while among unmarried women those who were dissatisfied with their housing were the least likely to have hobbies. Further analysis of the types of hobbies and equipment involved would be needed to adequately interpret this relationship.

The personality variable for introvert/extrovert was also difficult to interpret and inconclusive. Although personality was a significant determinant of housing satisfaction for married women, the relationship was curvilinear with more extroverts being both satisfied and dissatisfied with their housing. The role of personality in housing satisfaction needs to be studied further and in more detail to determine if certain personality types may be predisposed to select different types of housing or housing features.

From the analysis of most satisfying and most dissatisfying aspects of housing, it is clear that the size and design features of the home are of foremost concern for older women. Their homes need to be large enough to accommodate their activities and possessions, but easy to care for, comfortable, and convenient.

The results of this study have implications for designers and administrators of housing for the elderly. Adequate space in the home to accommodate possessions is clearly an important determinant of housing satisfaction among older women. Comfort and convenience, which were frequently mentioned as most satisfying aspects of the home, are also important features to be incorporated in housing for older women.

Policy makers should also be cognizant of the fact that one of the strongest determinants of housing satisfaction among older unmarried women was being able to live alone. The sense of control and freedom to do as one pleases with one's possessions is probably a factor in the relationship of living alone to housing satisfaction.

This study also has implications for the older women themselves. Although these women clearly valued their possessions, having the right amount of things in the home was a strong determinant of housing satisfaction for married women. Possessions among the elderly should be encouraged because of their links to a lifetime of memories, as long as they can be maintained and do not present a health or safety hazard. Those who work with the elderly should promote convenience and safety by encouraging women to dispose of unnecessary possessions, the "junk" that most of us tend to accumulate over a lifetime. Valued possessions need not be disposed of, but many older women admit to hoarding things like old magazines, papers, sewing scraps, jars, bags, and other items that can become a health or safety hazard because of the clutter and do not contribute to the quality of life.

The results of this study may not be generalizable to all older women due to the nature of the sample. The respondents tended to be healthier, more affluent, and better educated than average. The intent was to explore possible relationships for the generation of future research hypotheses, rather than to generalize.

Further research is needed to address the determinants of housing satisfaction among the lower socioeconomic level and particularly among those with poorer health. None of the respondents of this study were housebound, a group for whom housing satisfaction would be much more critical because they are unable to escape the boundaries of an unsatisfactory setting.

Research on storage areas would be useful for determining how best to keep storage organized and accessible for the possessions of older women. Display areas for prized possessions may also be helpful in small units designed for retirees. Built-in shelves and display areas may help eliminate the need for excess furniture and reduce clutter, making homes safer as well as aesthetically pleasing.

Ideally, future research on housing satisfaction of older people would be longitudinal and include all household members. Longitudinal data would be useful in determining how variables affecting housing satisfaction change over time, particularly as one progresses from a job/career oriented lifestyle to retirement with its altered range of activities and life emphasis.

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