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Senior Housing:
Pathway to Service Utilization

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ABSTRACT. Increasing numbers of older adults in our society have created a demand for a range of housing options. This study was conducted to better understand the relationship between the type of housing in which older adults lived and their utilization of formal services. A modified version of the Andersen-Newman model (1973) was used to organize the independent variables with type of housing listed as a separate category for the purposes of regression analysis.

People living in senior housing (age segregated) were older, poorer, more functionally impaired, more likely to have Medicaid health insurance, and more likely to use formal in-home services than those seniors living in age integrated housing. In both groups, level of need was the strongest predictor of formal service use. However, even with all the need, enabling, and predisposing variables controlled, housing type made an independent contribution in explaining patterns of service utilization. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2002 by The Haworth Press, Inc. All rights reserved.]*

KEYWORDS. Senior housing, age segregated housing, age integrated housing, formal in-home services, pathways to service utilization

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INTRODUCTION

As more individuals in our society live into advanced years, interest in types of settings that enhance their well-being and independence has also grown. Specialized housing for the elderly has been an important component in developing a continuum of housing alternatives. M. Powell Lawton (1985) has grouped such housing for the elderly as (1) independent planned housing (no support services); (2) congregate housing (with some support services); and (3) institutional housing (complete support services).

As a social work provider of community based services for aging individuals in New York City for over 25 years, I have been particularly interested in the impact of specially built independent planned housing on service utilization. Housing especially designed for an aging population can provide an environment that can enhance a person's sense of environmental satisfaction. However, the literature is not clear as to what impact, if any, independent planned housing has on in-home support service utilization. Early studies by Carp (1965) and Lawton (1975) were undertaken to better understand the impact of senior housing with support services on tenants' well-being. Other studies have looked at factors influencing varied in-home service utilization by the aging population (e.g., Mindel & Wright, 1982; Starrett & Decker, 1987; Krout, 1983; Soldo, 1985). In an era of cutbacks in formal support services, I wanted to explore the impact of specially designed housing on residents' use of services. Would senior housing with its special design features reduce service utilization or conversely serve as a pathway to other services? Were there certain variables that were more important than others in predicting service utilization? In sum, the purpose of this study was to empirically study and to better understand the role that independent planned senior housing plays, if any, in service utilization patterns by aging residents.

PRIOR RESEARCH

Past research about the impact of senior housing has primarily focused on the psychological well-being and behavioral functioning of the residents (Carp, 1965; Lawton, 1975). For example, Lawton (1976)

noted an increase in morale and housing satisfaction as well as a reduction in the solitary status of those tenants who moved into service-rich buildings. On the other hand, Ehrlich, Ehrlich, and Woehike (1982) failed to document either high levels of social interaction or of mutual support among neighbors in their study of a congregate housing program 13 years after its development.

Other studies have looked at pathways to in-home service utilization for the elderly in general. Research by Cantor et al. (1975, 1993, 2000) suggests that connections to the welfare system, (e.g., SSI, Medicaid, food stamps) serve as significant pathways to service utilization.

Rodriguez and O'Donnell (1992), in studying the under-utilization of mental health services by Hispanic elderly, used path analysis to explore the interrelationships among alternative resources of support (e.g., family, friends, religious groups and folk healers) and barriers to seeking and receiving help (e.g., availability and accessibility of services). Cantor and Brennan in a recent book (2000) about the relationship between ethnicity and social care of the elderly indicated that pathways played a significant role in utilization of formal services. There appeared to be a greater utilization of community services by Latino elders who were involved with their neighbors in helping relationships, or who had any connection to the formal system through needs-based entitlement programs. For African American older adults, need was overriding among factors associated with formal service utilization. Once need had been accounted for, however, identified pathways to formal service systems were important links to service utilization.

One of the more frequently used behavior models of health-related service utilization was developed by Andersen and Newman (1973). This model states that service utilization is a result of the interaction of predisposing (e.g., socio-demographic characteristics), enabling (e.g., social and community resources), and need factors (e.g., physical and/or emotional health).

The theoretical framework developed by Andersen (1968) and colleagues (Aday & Andersen, 1974; Aday, Fleming & Andersen, 1984; Andersen & Newman, 1973) has been adapted and used over the years to analyze health and social service utilization by older adults in diverse situations (Ward, 1977; Wan, 1989). According to Andersen (1968), need represents the most immediate cause of service utilization. Subsequent researchers have analyzed other potential indicators of service utilization while using the Andersen-Newman (1973) model. For example, Coulton and Frost (1982), Krout (1984, 1985), Mindel and Wright

(1982), and Starrett and Decker (1987) added informal social supports. Bass et al. (1992) added cognitive impairment. Coulton and Frost (1982), Krout (1984), and Starrett, Todd and DeLeon (1989) added service awareness as an indicator of service utilization.

In a recent study by Burnette and Mui (1995) using a modified version of the Andersen-Newman (1973) model to examine service utilization among three groups of elderly Hispanics, the need for care (number of hospitalizations) was found to be the strongest predictor of in-home service utilization.

Even with all the various adaptations to the theoretical framework developed by Andersen and his colleagues (Andersen, 1968, Andersen et al., 1973) and its use to analyze health and social service utilization by older adults in diverse situations, need has continued to be found to be the dominant factor in explaining variance in service utilization (Mui & Burnette, 1994; Soldo, 1985; Coulton & Frost, 1982; Kempen & Suurmeijer, 1991; Calsyn & Roades, 1993).

In order to address the possible relationship between the type of housing in which seniors live and their use of in-home support services, this study used the Andersen-Newman (1973) model to compare service utilization patterns of older individuals living in one of two types of independent housing environments in one community in New York City–age segregated senior housing or age integrated housing.

METHOD

Sample

Participants from two different types of independent housing located in the same New York City neighborhood, the Upper West Side of Manhattan, were chosen for this study. One group of respondents lived in age segregated planned housing designed and built for seniors (Section 202 housing), and the other group lived in traditional age integrated housing in the neighborhood at large. The building sites in which study participants lived, whether specialized senior housing or age integrated housing, were built for independent living, not institutional or supported living. Any in-home support services provided were based on individual need and not as a part of a building plan or design.

Eligibility criteria for participation in this study for both sub-groups included the following: residence in the same urban New York City neighborhood, Manhattan's Upper West Side; English speaking ability;

ages among men and women of 60 or older; and users of government subsidized or funded services (senior housing or senior centers).

Participants in the senior housing group lived in one of three specialized senior housing sites subsidized under the auspices of the Federal Government's Department of Housing and Urban Development (HUD), Section 8 program. Those participants living in age integrated housing were selected from members of two local free-standing senior centers, both funded with public funds provided through contract with the NYC Department for the Aging.

The sub-group living in specialized senior housing was selected at random using a Random Digit Table (Kachigan, 1986). Of 185 persons selected, 114 individuals (62%) responded to a individually addressed letter and were interviewed. Data from 102 of the participants (55%) were used in the final analysis. Individuals whose interviews were not included suffered from dementia (10 persons), had language communication problems (1 person), or refused to complete the interview (1 person). As indicated, participants in this group lived in one of three specialized senior housing sites. Such housing had been built with specially designed features (e.g., hand railings in the halls, 24-hour security, well-lighted and accessible laundry room, elevators, and emergency call buttons in all apartments) to enable aging residents to maintain independent life styles. In addition, each of these sites had a full-time professional social worker.

The other sub-group of older individuals living in "traditional" age integrated housing was selected from members of two local free-standing senior centers located in the same New York City community. This population was chosen as a comparison group because they were community residents living in age integrated housing and attending local senior centers, an important entry point of community based services for older people. Therefore, they also had experience with the formal system of services. This sub-group of the sample was a self-selected group who agreed to participate on a voluntary basis. It was also determined that none of these participants lived in senior housing.

Approximately 155 senior center members were approached, with 93 senior center participants (60%) agreeing to be interviewed. Data from 87 participants (56%) were included in the study sample. Those individuals whose interviews were not included had language communication problems (2), did not live in the study area (1), or refused to complete the interview (3). The final study sample (N = 189) consisted of English speaking community dwelling elderly men and women, age 60 and

older, 102 living in specialized senior housing and 87 living in age integrated housing in the same community.

Measures

Independent Variables

Independent variables hypothesized as potentially related to service utilization were organized into three groups, predisposing, enabling, and need, according to the model defined by Andersen and Newman (1973). For purposes of this study, this Andersen-Newman model was modified to single out housing type and include it as a separate category for purposes of regression analysis.

The *predisposing* variables included socio-demographic characteristics of the participants (e.g., age, gender, ethnicity, living arrangement, marital status, level of education, length of residence in the building, and locus of control).

Ethnicity was defined according to procedures utilized by the Census and in the study, *Growing Older in New York City* (Cantor et al., 1993). The coding was based upon a two-item question. The first ethnicity question asked whether respondents were of Hispanic origin or descent. Those who answered "no" were then asked to specify ethnicity as White, Black, Asian and Pacific Islander, American Indian and Alaskan Native, or other.

Level of education was summarized into two categories (up to high school and college/post college). Length of time in current residence was based upon respondents' self reporting. Locus of control was defined as to how much control people feel with respect to their life situations using a modified version of Rotter's (1966) 23 item I-E scale (alpha = .45) developed for use with older individuals by Cantor (1975).

The *enabling* variables included those factors that could affect housing residents' access to services, such as health insurance and knowledge of services. A question as to whether the participant had health insurance was dummy coded. Participants were then asked about specific health insurance plans (Medicaid, Medicare Part A, Medicare Part B, or other health insurance).

Knowledge of services was measured using a listing of community based services with a particular focus on formal in-home services for older adults. Questions were adapted from Chapleski (1989) and Calsyn and Roades (1993) asking participants whether they were aware of an agency or program in their community which provided particular ser-

vices for older people. If they answered "yes," they were then asked if they would know how to access the particular services. A formal services knowledge index was created which combined the responses to these two questions.

Study participants were also assessed as to how satisfied they were with their environments. This assessment was based upon questions from Cantor's (1993) *Growing Older in NYC* study. An environmental satisfaction scale (alpha = .85) was then developed which was based upon participants' responses to questions with respect to how they feel about their neighborhood, building, and apartment as a place for older people to live, how safe from crime they say it is, and whether they would want to move or stay in their current situation.

The *need* variables included level of poverty and functional status. Level of poverty was determined based upon participants' responses to general income categories. Based upon 1996 federal poverty levels for people over the age of 65, respondents' income information was used to compute poverty status–at or below poverty, 101% to 150%, and over 150% of poverty. Functional status (ADL and IADL) was determined using the Older Americans Resources and Services Multidimensional Functional Assessment Questionnaire (OARS: Duke University, 1978), based upon participants' responses to 6 questions about Activities of Daily Living and seven questions about Instrumental Activities of Daily Living. Higher scores indicated greater ability to perform/accomplish activities more independently.

Other *need* variables such as physical well-being were measured by respondents' self report responses to questions about physical health, health today compared to 5 years ago, and how much health problems interfere with daily activities. Emotional well-being was measured using a shortened version of the Geriatric Depression Scale (Sheikh & Yesavage, 1986). Memory self-perception was based on respondents' self reporting of memory (normal, slight loss, a moderate loss, a big loss or an extreme loss).

Type of housing in which respondents lived was coded as either age segregated (specialized senior housing) or age integrated housing in which people of all ages were residents.

Dependent Variables

The dependent variables in this study included use and intensity of formal and informal in-home support services as separate variables. Participants were asked if they had used any of the following nine ser-

vices–(1) transportation services; (2) personal care services; (3) nursing tasks; (4) help with cooking; (5) help with chores, e.g., light housekeeping and laundry; (6) in-home visits by a social worker; (7) someone to help pay bills; (8) help with shopping; and (9) someone to check on them regularly during the past six months. If utilized, who had provided the service(s), and how often were the services received? A service utilization score was computed based on the total number of formal services used and the intensity of use (how often they were received).

For purposes of this article, the use and intensity of formal services are used as the dependent variables. In using a series of hierarchical multiple regressions of the entire study sample, need for services is the most important factor related to service utilization, particularly formal service use. Predictors of informal service use examined in this study were much weaker, and thus are not included.

RESULTS

Comparison of Age Integrated Housing Residents and Specialized Senior Housing Residents

Bi-variate analysis was conducted in order to compare the two sub-groups (i.e., residents of specialized senior housing and residents of traditional age integrated housing) based upon the Andersen (1968) model using chi-square or ANOVA statistical tests. In this analysis, all of the independent variables were grouped into three domains as specified in the Andersen-Newman (1973) model–predisposing, enabling, and need.

Predisposing Variables

As can be seen in Table 1, there were significant differences between the two sub-groups with respect to all the predisposing variables, except gender. Significant differences were found with respect to mean age (residents in senior housing were older); ethnicity (more African Americans lived in senior housing and more Whites and Asian/Others lived in age integrated housing); and level of education (residents of senior housing were more likely to have less education–no more than high school–compared to residents of integrated housing who were more likely to have some college education). Also, a significantly greater proportion of senior housing residents lived alone, either having been

TABLE 1. Bi-Variate Analysis of Independent Variables by Housing Site Type Using Andersen Model to Categorize Variables

		(N) = 189 [SD] %			
		Senior Housing Residents		Age Integrated Housing Residents	
		(N)	%	(N)	%
Predisposing Variables					
Gender					
Male		(20)	19.6	(27)	31.0
Female		(82)	80.4	(60)	69.0
Age	**				
59-74		(32)	32.7	(45)	53.6
75-84		(40)	40.8	(28)	33.3
85+		(26)	22.0	(11)	13.1
Mean Age [SD]		78.0 [8.3]		74.2 [8.6]	
Ethnicity	*				
White		(40)	39.6	(39)	44.8
African American		(24)	23.7	(11)	11.5
Latino		(34)	33.7	(28)	32.2
Asian/Other		(3)	3.0	(10)	11.5
Level of Education	*				
Grammar/High School		(74)	72.5	(50)	57.5
College		(28)	27.5	(37)	42.5
Living Situation	***				
Alone		(97)	95.1	(64)	73.6
With others		(5)	4.9	(23)	26.4
Marital Status	*				
Married		(5)	5.0	(9)	10.3
Widowed		(45)	44.6	(32)	36.8
Divorced/Separated		(34)	33.7	(20)	23.0
Never Married		(17)	16.8	(26)	29.9
Enabling Variables					
Environmental Satisf. Scale	***	21.01 [3.37]		18.82 [3.89]	
No. of Confidants (Mean)	*	2.55 [3.47]		1.62 [1.56]	
No. of Children (Mean)		1.22 [1.55]		1.07 [1.48]	
No. of Relatives (Mean)		3.09 [3.88]		4.63 [7.95]	
No. of Friends (Mean)		3.97 [6.56]		5.01 [7.67]	
No. of Neighbors (Mean)		3.20 [3.90]		4.34 [6.78]	
Health Insurance (Yes)	*	(102)	55.4	(82)	44.6
Medicare Part A (Yes)		(96)	57.1	(72)	42.9
Medicare Part B (Yes)	**	(94)	58.8	(66)	41.3
Medicaid (Yes)	**	(42)	72.4	(16)	27.6
Other Health Insurance (Yes)	**	(32)	42.7	(43)	57.3
Knowledge of In-home Services/ Mean		10.58 [4.18]		9.45 [4.37]	
Need Variables					
Poverty	***				
At or Below		(53)	63.1	(31)	36.9
101% to 150%		(35)	63.6	(20)	36.4
Above 150%		(10)	27.0	(27)	73.0
Functional Status (IADL/ADL)					
Mean	***	23.80 [3.55]		25.39 [1.19]	

* *p* < .05   ** *p* < .01   *** *p* < .000

widowed, divorced or separated, and residents living in age integrated housing were more likely to be married, or to have never been married.

Enabling Variables

Residents of senior housing expressed significantly greater environmental satisfaction, reported more confidants, and were more likely to have health insurance, including Medicare Part B and Medicaid. Residents of age integrated housing were significantly more likely to have other types of health insurance. With respect to numbers of children, relatives, friends and neighbors self-reported by respondents, there were no significant differences between the two groups. Thus, the availability of informal support was similar for the two groups (Table 1).

Need Variables

There were significant differences between the two groups in level of poverty and functional well-being–the ability to perform Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs). Residents living in senior housing were more likely to be poor (almost two-thirds reporting incomes less than 150% of poverty), and more functionally impaired (ability to perform fewer ADL and IADL activities independently). Those seniors living in age integrated housing, in comparison, were more likely to have higher incomes (almost three-quarters of study participants reported income above 150% of the poverty level) and to be able to function more independently (Table 1).

Dependent Variable

There was a significant difference between study participants living in senior housing and those individuals living in age integrated housing. People living in senior housing used more formal services and with greater intensity than their neighbors living in age integrated housing (see Table 2).

Factors Significantly Related to Service Utilization by Housing Type and for the Group as a Whole

A modified version of the Andersen-Newman model (1973) was used in hierarchical regression analysis to determine the relative importance of the independent variables, including housing type, with respect

TABLE 2. Bi-variate Analysis of Dependent Variable (Use of Formal Services) by Housing Site Type

(N) = 189 [SD] %		
	Senior Housing Residents (N = 102)	Age Integrated Housing Residents (N = 87)
Use of Formal Services Mean [SD] ***	2.02 [2.36]	.31 [.84]
Intensity of Formal Service Use Mean [SD] ***	3.95 [5.08]	.51 [1.47]

* p < .05   ** p < .01   *** p < .000

to service utilization. Only those independent variables found to be significantly related to service utilization on a covariate level were entered. No variables were eliminated based upon multi-colinearity (r greater than .60) (see Tables 3 and 4).

Service Utilization by Housing Site Type

With respect to use of formal services by housing type, *predisposing variables* as a group explained 2% of the variance in use of services for the age integrated housing sub-group compared to 9% for the senior housing sub-group. *Enabling variables* as a group explained an additional 23% of the variance among age integrated residents compared to 28% of the variance among senior housing residents. *Need variables* as a group accounted for three times as much additional variance among senior housing residents (33%) as compared to age integrated housing residents (10%). The adjusted R^2 is over twice as large for the senior housing sub-group (.66) as compared to the age integrated sub-group (.25) (Table 3).

With respect to the significance of the individual independent variables, the only significant variable in terms of Betas common to both sites is functional well-being. The other significant independent variables among age integrated housing respondents are the enabling variables, other health insurance ($p < .01$) and Medicaid insurance ($p < .01$). Among the senior housing sub-group, knowledge of services is the only other significant variable ($p < .01$) predicting formal service use (Table 3). Thus, here again we find that the variables which emphasize pathways to services (knowledge of services, Medicaid or other health insurance) are significant predictors of service use–knowledge of services

TABLE 3. Hierarchical Regression with Service Utilization as Criterion

Use of Formal Services by Site Type

STEPS	BETA		F		R^2		R^2 Change	
	Site 1[a]	Site 2[a]	Site 1[a]	Site 2[a]	Site 1[a]	Site 2[a]	Site 1[a]	Site 2[a]
Predisposing								
Years in Bldg.	.0082	.1370	3.79	.705	.09	.02	.09	.02
Locus of Control	.0053	.1816	*	ns				
Enabling								
Knowledge of formal services	.2067 **	.0700 ns						
Other health Insurance	−.0241 ns	.4490 **						
Medicaid Insurance	−.1217 ns	.4490 **	8.96 ***	4.42 **	.37	.25	.28	.23
Need								
Physical Well-Being Index	−.0732	−.0766						
Geriatric Depression Scale	.0366	−.0582						
Functional Well-Being	−.6188 ***	−.2918 **						
Level of Poverty	−.0476	−.0938						
Self Perception of Memory	.0338	.0873	16.26 ***	3.33 **	.70	.35	.33	.10
Adj. R^2	.66	.25						

* $p < .05$ ** $p < .01$ *** $p < .000$ [a]Site 1 = Senior housing; Site 2 = Age Integrated

for the senior housing group and Medicaid and/or other health insurance for the age integrated group.

Service Utilization by Total Study Sample

With respect to use of formal services for the total study sample, *predisposing variables* as a group explained only 5% of the variance whereas the *enabling variables* as a group were far more significant and explained an additional 26% of variance. The *need variables* as a group explained the largest amount of variance (an additional 36% of variance). This not only supports Andersen's original findings but also subsequent studies (Mui & Burnette, 1994; Soldo, 1985; Coulton & Frost, 1982; Kempen & Suurmeijer, 1991; Calsyn & Roades, 1993; Cantor & Brennan, 2000). Thus, need continues to be the dominant factor in explaining variance in service utilization (Table 4).

TABLE 4. Hierarchical Regression Analysis Service Utilization as Criterion

Use of Formal Services by Group As a Whole

STEPS	BETA	F	R^2	R^2 CHANGE
Predisposing				
Years in Building	.0356			
Locus of Control	.0505	3.98 *	.05	.05
Enabling				
Knowledge of Services	.1535 **			
Other Health Insurance	.0638			
Medicaid Insurance	.2108 **	12.89 ***	.31	.26
Need				
Physical Well-Being	−.0681			
Geriatric Depression Scale	−.0226			
Functional Well-Being	−.5895 ***			
Level of Poverty	−.0404			
Memory Self Perception	.0332	28.71 ***	.67	.36
Housing Site	−.2040 **	29.44 ***	.70	.03
Adjusted R^2	.67 ***			

* p < .05   ** p < .01   *** p < .001

Not surprisingly, the need variable of functional well-being–one's ability to perform ADLs and IADLs–has the highest predictive power, with a Beta of .59 (Table 4). Other studies support this study's findings regarding the importance of need and/or potential need. For example, increasing age (Corman & Kingson, 1996), financial need (Rosow, 1967; U.S. General Accounting Office, 1988), health and income (Cantor, et al., 1973, and difficulty with IADL and ADL tasks (Golant, 1992; Rowland & Lyons, 1991; Heumann, 1985) have all been identified as predictors of need for assistance.

Other significant predictors of service utilization based on this study sample are the enabling variables of knowledge of services and Medicaid insurance. Being connected to the formal service system through health insurance, such as Medicaid, as well as through knowledge of services were indicated in Cantor's studies in 1970 and in 1993 of New York City's Elderly (Cantor, 1975, 1993). Knowledge of services has also been indicated as a significant predictor of service use in prior studies (Mindel & Wright, 1982, Krout, 1983, and Calsyn & Roades, 1992).

As mentioned in the Method Section, type of housing was entered as a separate independent variable in order to determine its possible significance with regard to service utilization. After controlling for all other independent factors, categorized according to a modified Andersen-Newman (1973) model, housing type emerges as a significant predictor for use of formal services. Even though predisposing, enabling and need variables explained two-thirds (67%) of the total variance of service utilization, type of housing explained an additional 3% of the variance. There is something about housing itself which contributes to service utilization and thus may very well represent a potential pathway to service utilization (Table 4).

DISCUSSION

A particular type of housing cannot slow down an individual's aging process, the possibility of increasing frailty, or an increasing need for support services. However, based on this study sample, housing especially designed for an aging population can provide an environment which enhances a person's sense of environmental satisfaction and make it more likely that support services will be available and utilized. In this study, senior housing residents not only used more formal services than the sub-group living in age integrated housing (Table 2), but they also experienced higher levels of environmental satisfaction (Table 1).

Senior housing residents were in greater need; they were poorer, more functionally impaired, older, more likely to live alone, had less education, and represented a higher percentage of people of color. Since these factors are commonly recognized as potential indicators of need for assistance, this greater need also may serve as a stimulus to service utilization.

Senior housing residents in this study also were significantly more likely to have Medicaid and Medicare Part B health insurance. Since both types of insurance help to pay for in-home community based services, it is not surprising that this group uses formal services significantly more than respondents living in age integrated housing.

Knowledge of services also emerges as a significant predictor of use of formal support services ($p < .01$) for the senior housing sub-group. Since knowledge of services is a requisite for using the formal service system (Mindel & Wright, 1982; Krout, 1983; Calsyn & Roades, 1992), and all of the senior housing sites in this study sample had full-time pro-

fessional social workers (MSWs) on staff, it is not surprising to find that the senior housing sub-group participants were significant users of formal in-home services. The senior center sites that participated in this study, in comparison, had social service oriented workers, but did not have professionally educated and experienced social workers. It will be important for future studies to analyze the role of the professional social worker with respect to service utilization.

The type of housing site was added as a final step in the series of multiple regression analyses. Based on this study sample, specialized senior housing made a small independent contribution to predicting service use among respondents. Even after controlling for significant predisposing, enabling, and need factors, type of housing still emerges as a significant predictor of service utilization ($p < .03$).

It is not clear what about specialized senior housing actually makes the difference in service utilization. Since it represents an environment which links residents to services, it may be that it opens doors once need is present. One of the reasons that people often don't use needed services is because of perceived barriers with respect to accessibility and acceptability. In senior housing, receipt of services is often perceived as socially acceptable. Neighbors are seen using in-home support services. In this study sample, professional social work staff was available to help senior housing residents access needed services.

The fact that people move into senior housing may suggest a willingness to be part of the formal service system. Such a decision to move may imply one is elderly and possibly more dependent now or will be in the near future. Those older individuals who feel most at risk–those who are living alone, or are poor, aging, and functionally impaired–may be more likely to choose to live in senior housing because of their awareness, or that of family and friends, that such housing might provide a supportive environment to enable them to better adapt to changes as part of their aging process (Germain, 1991). There is also the perception that the level of support provided in senior housing will more likely match their level of need and/or competencies (Kahana, 1982).

Both groups of seniors in this study have chosen their particular environments (whether living in specialized senior housing or attending a local senior center while continuing to live in their age integrated housing) based upon particular needs and/or circumstances. People often make choices about their living situation as an effort to control their environment in the face of current or perceived future dependency needs. Some people choose specialized housing, such as senior housing, while others choose to remain in their same apartments and become members

of congregate senior centers. In both situations, people are making such choices as an outgrowth of their life style, availability of options, and individual characteristics, such as living situation, income, and/or health status.

Several cautions regarding these findings should be noted. First, the sample selection process differed for the two housing sub-groups. Residents who lived in senior housing were selected at random in comparison to the residents of age integrated housing who were a self-selected group from members of local community based senior centers. Furthermore, the study sample is not representative of NYC's aging population (U.S. Census, 1990) nor were non-English speaking older individuals able to be interviewed for this study, particularly Latino and Asian seniors. It will be important for future studies to capture data about service utilization patterns for a more representative group of aging individuals, including non-English speakers. Finally, the fact that this study only looked at one community district in one borough of New York City limits its applicability to other communities. Despite these limitations, the findings of this study will not only provide some basic information about the relationship between housing and seniors' use of services for further study but will raise other questions.

As the numbers of aging individuals increase and people live longer, there will be increased demand for more specialized senior housing. Current interest in the development of various models of senior housing will continue to grow. In the midst of this changing environment, it will be increasingly important to better understand the relationship between the various models of housing environments in which older people live and their utilization of in-home support services. As more models of senior housing become available, different types of studies will be needed. For example, would a longitudinal study, in contrast to this cross sectional one, help us better understand the relationship of the changing needs of older individuals over time to service utilization patterns?

Based on the findings of this study, this researcher has made some general comments about the possible implications of housing type as a significant and independent contributor to service utilization. Future researchers may want to further explore the significance of the availability of professional social service staff and their particular roles with respect to residents' needs. Analysis of the relationships between tenants might shed additional light on neighbors' use of services. Factors such as demographics of residents, the size, design and location of the building, the number and roles of various building staff, and relation-

ship to other community services might be further explored to better understand their significance with respect to service utilization. Are there particular types of support services desired by certain groups of older residents?

As seniors consider housing options, it is clear that in-home support services may be necessary over time for many older residents. The fact that housing built specifically for older people can serve as a pathway for service utilization is an important factor to recognize in planning housing to address the changing needs of aging older adults. Individual needs will continue to dominate as predictors of service use for individuals. Based on this study sample, however, we know that the type of housing can make a significant and independent contribution. The suggestion by Lawton (1980) over 20 years ago that housing built for seniors must be more than bricks and mortar is clearly supported by this study.

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