

ACCEPTANCE OF HOUSING ALTERNATIVES FOR THE ELDERLY: CONSUMER PERSPECTIVES

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Abstract

Many housing options for the elderly are being developed and promoted that could help older persons avoid premature nursing home care. Elderly person's acceptance of four of these options was examined through a survey of Virginia Extension Homemakers Council members. These options were: ECHO housing, accessory apartments, shared housing, and board and care homes. Respondents had limited awareness of the ECHO housing, though they were somewhat familiar with the other options. Although they had not sought information on any of these options to any degree, a large proportion (37% - 47%) of the sample would consider living in them. Multiple regression was used to determine demographic and personal innovativeness characteristics which affect overall acceptance of the four types. Education, income, and age were significantly related to the Housing Adoption score. However, the innovativeness variable, Willingness to Take a Chance, was the strongest predictor in the regression model. The analysis indicates that younger, more educated people with higher incomes and a willingness to take a chance will be the consumer group most likely to try housing options for the elderly.

Introduction

Housing alternatives for the elderly in the United States are becoming increasingly promoted by housing and aging advocates (American Association of Retired Persons [AARP], 1984; Newcomer, Lawton, and Byerts; 1986). Many of these housing options are seen as alternatives to "aging in place" in one's own home or environments that are supportive but less restrictive than nursing homes.

Research and theories developed by Lawton (1980) and Lawton and Nahemow (1973) have suggested the need for a continuum of housing options that would assist elderly residents in meeting the physical, social, and financial challenges that they may face in their residential milieu. The Ecological Theory of Adaptive Behavior indicates that there is a relationship between the individual's competence and the pressure or stress of the environment. As a person's competence declines, their residential environment needs to offer fewer challenges so the person can manage the environment or "fit" with the setting. Changing environmental setting to accommodate the needs of the elderly is one possibility. Another possibility is a series of residential settings which offer more and more support in various capacities. Streib, Folts, and Hilker (1984) identify a continuum of living arrangements from least supportive to most supportive. Housing options such as shared housing, ECHO housing, accessory apartments, board and care homes, and assisted living offer distinct alternatives that typically rely on the presence of some type of caregiving and the incorporation of a degree of community services to accommodate the needs of the elderly.

Acceptance of housing alternatives by local, state, and federal policy makers, various housing and health-care groups, and the elderly and their families is a complicated multilayered process. Although there may be advantages for certain segments, there may also be disadvantages which limit the applicability of the options. Eckert and Murrey (1984) suggest that alternative housing for the elderly be explored through an ecological model that is centered on the individual and considers the concentric circles around the individual: the micro-

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system, exosystem, and macrosystem. This holistic approach considers the home, neighborhood, community, and social environments.

Consideration of the needs of the individual appears to be at the basis of Lawton and Nahemow's (1973) Ecological Theory. Physical and social needs are often the forces that cause the environment to be challenging. However, Anderson, Chen, and Hula (1984) challenge many of the assumptions underlying the Ecological Theory. A primary concern is the ability of the elderly to accept the alternatives.

The purpose of this paper is to examine the elderly's acceptance of certain housing options specific to the needs of the elderly and to determine factors associated with level of acceptance. Although the housing options are consistent with the Ecological Theory, the study utilizes the Diffusion of Innovations Theory to explore the concept of acceptance in relation to these innovative and unique housing alternatives.

Theoretical Base

According to Rogers and Shoemaker (1971), people usually go through several stages in the process of accepting an innovation of any type. These stages are: (1) awareness - knowledge of the innovation; (2) interest - seeking information about the innovation; (3) evaluation - a mental trial of the innovation; (4) trial - testing the innovation on a small scale; and (5) adoption - full scale utilization of the innovation. Rogers' (1983) later work revised this process to: (1) knowledge - discovering the innovation and gaining some understanding of how it functions; (2) persuasion - forming a favorable or unfavorable attitude toward the innovation; (3) decision - choosing whether to adopt or reject the innovation; (4) implementation - utilizing the innovation, and (5) confirmation - seeking reinforcement for the decision that has been made.

Weber, McCray, and Claypool (1985) and Kwon (1991) utilized this framework in the study of acceptance of housing alternatives. Kwon (1991) examined the acceptance level of the elderly to several housing options, including apartments, mobile homes, and energy efficient alternatives, such as solar and earth sheltered housing. The younger elderly and those with more education were more likely to be accepting of nontraditional housing types. Those with higher incomes were also more accepting, except for the mobile home which was accepted more frequently by lower income respondents.

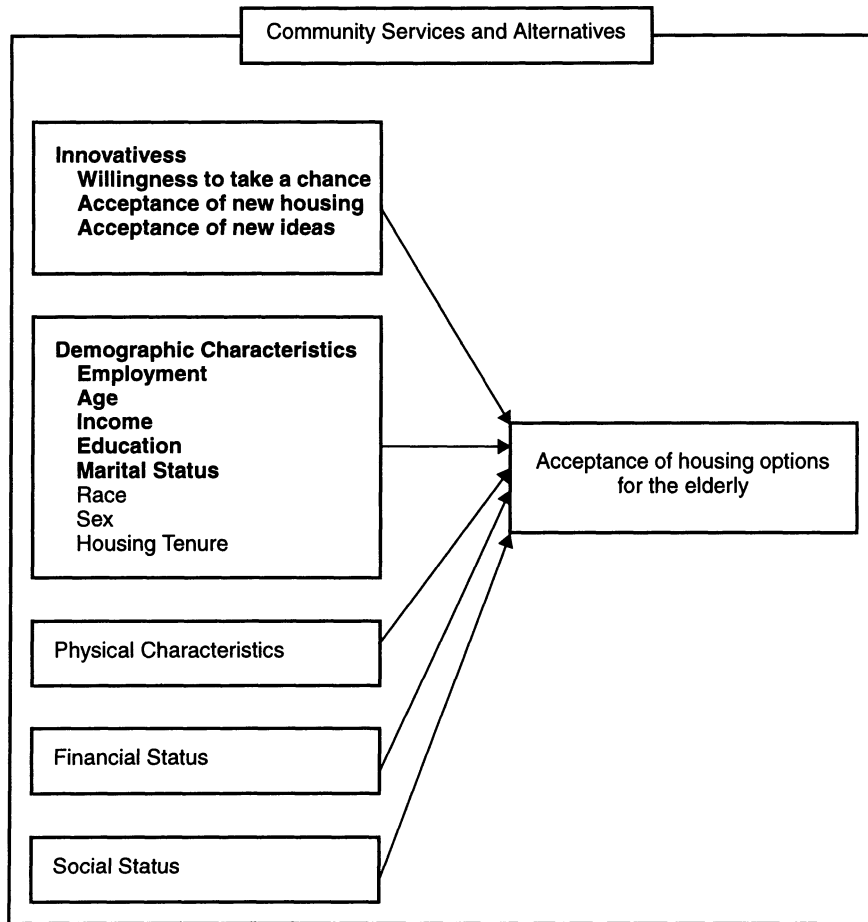
Kwon (1991) also found a relationship between certain innovativeness characteristics and acceptance of housing alternatives among this age group. Experimenting with new ideas and accepting new housing types were found to be related to the overall measure of acceptance of nontraditional housing. Rogers (1983) and Rogers and Shoemaker (1971) indicated this personality characteristic would be important in determining whether or not an individual adopted a new idea soon after its introduction. Measures have been developed and validated to determine the housing innovativeness of individuals (Gruber, Beamish, Carter, Shelton, & Weber, 1990) and have been applied to elderly populations (Kwon, 1991; Johnson & Beamish, 1993). These measures typically indicate an acceptance of new housing specifically, as well as acceptance of new ideas and willingness to take chances or experiment.

The utilization of this framework indicates straightforward relationships between demographic characteristics of the elderly, their innovativeness level, and their acceptance or willingness to adopt housing options specifically designed to meet their needs. Though this is the focus of this paper, it is recognized that other factors, as identified by Lawton and Nahemow (1973) may also be involved. Figure 1 diagrams a proposed framework which places these factors within a holistic context. The highlighted elements of the figure also illustrate the components of this study.

Housing Options for the Elderly

Specific housing options suited for the needs and challenges of the elderly are increasing rapidly. Although there are several option types, the variations in design, management, and implementation within a community create a myriad of alternatives and opportunities which may create confusion for an elderly person and/or their family.

Figure 1. Conceptual model of acceptance of housing alternatives for the elderly.



Four housing types were considered in this study and will be discussed here. These four options (ECHO housing, accessory apartments, shared housing, and board and care homes) are considered community-based options (Blank, 1988). They are small scale in size and number of occupants and could be available within single family residential neighborhoods, if local zoning ordinances permit them. Although caregiving may be a component of the house type, most rely on limited supervision to support an elderly person in life activities without intrusive measures that eliminate personal control.

ECHO Housing. ECHO is an acronym for Elder Cottage Housing Opportunity, which is a small residential unit placed on the lot of a single-family home. The units are of modular construction and designed to be removed once the person living in them moves (Mace & Phillips, 1991). They are intended to allow an older person to live next to a family member and receive care, supervision, and interaction from various family members. The Australian model of "granny flats" involved the government in purchasing, locating, renting, and removing the unit; however, in the United States, most placements have been individual efforts. Duensing (1988) reports that in 1982 less than 10,000 elderly were served by this option.

Restrictive zoning has limited its adoption in many states, since it typically involves placing a second unit on a single-family dwelling lot. Only five states are reported to have legislation that would permit ECHO housing and special use permits are often prerequisites in this legislation (Hare & Hollis, 1985).

In AARP's (1987) survey of 1,500 adults over age 60, blacks, women age 60 to 64, and residents of mobile homes were most likely to accept an alternative like ECHO housing. Triple, Keiser, Oppy, & Gunn (1990) found that a majority of pre-retirees (age 40 and above) personally accepted ECHO housing in their neighborhoods but did not perceive that it was an option in which they would be interested. The profile of the person accepting this alternative was: female, high school educated or less, non-professional employment, modest income, and in fair health. This profile seems to describe people who may face financial and physical challenges early in retirement.

Accessory Apartments. Accessory apartments are created from the division of a single-family housing unit into two units. Typically, the house was designed as a single-family residential unit; however, it may have been planned to incorporate a smaller unit from the beginning. Accessory apartments have separate exterior entrances and completely separate living spaces, including kitchen and bath (Hare, 1985). The option for the elderly would place them in either element of the house. They may be the homeowner who has converted the space or they may be the renter or family member who is being accommodated in the smaller space.

The benefits to the elderly vary, depending on the status that they have. Homeowners may find that this arrangement provides them with extra income and the security of having someone nearby. The actual living space is reduced, so there is less upkeep. A tenant might also provide some services for the elderly homeowner in exchange for reduced rent, such as yard care, home maintenance, house sitting, and in some cases, more immediate supervision of health status (Hare, Conner, & Merriam, 1981). Negative impacts may be the costs of apartment conversion, the responsibilities of being a landlord, and the actual "rules" for making the living arrangement work for both parties (Golant, 1992).

Communities often restrict accessory apartments through zoning. Since the housing becomes a two-family unit, it is not permitted in single-family districts without special designations or special use permits. Residents of single-family neighborhoods might oppose the implementation of changes in zoning districts and the long term changes that could occur with the density and tenure status of residents (Hodges & Goldman, 1983).

Duensing (1988) reported 350,000 elderly lived in accessory apartments in the United States in 1982. Among elderly homeowners surveyed by AARP (1987), blacks, part-time workers, and women between age 60 and 64 were most likely to indicate they would consider modifying their home to incorporate an apartment.

Shared Housing. Shared housing is a generic term that might represent several model living arrangements. Mantel and Gildea (1989) define it as "a living arrangement in which two or more unrelated people share a home or apartment to their mutual advantage" (p. 13). Typically, bedrooms are private, but other spaces, such as living and kitchen spaces, are shared. Shared housing may be self-initiated or agency sponsored. A self-initiated option would involve sharing an existing or new home with a friend or with someone identified through some informal means (Golant, 1992). The two primary models of agency sponsored shared housing are group shared residences and house matching programs. Group shared residences are located in single family homes and operate as somewhat of a cooperative living arrangement. They are usually sponsored by a nonprofit agency which may manage one or more dwellings with four to 20 residences (Mantell & Gildea, 1989). The house matching program involves an agency or individual which pairs potential home sharers with home seekers (Ehrlich, 1986). The home sharer may be a homeowner, but a renter could also qualify.

All of these models vary in how exclusive they are for elderly residents, and examples in each model indicate intergenerational roommates. Whatever the age range, the option offers residents the ability to share in daily living activities such as cooking and shopping and to combine resources for home maintenance and various housing costs. While the living ar-

rangements may offer more security and companionship, they may also require the elderly to learn new roles and to adjust to losses in privacy (Ehrlich, 1986; Golant, 1992).

Shared housing may face some difficulties in many communities because of the definition of "family" used in single-family districts, or because of the number of people being placed in the residence. However, a study of shared housing in 1982 (*Quarterly*, 1982) did not find zoning restrictions to be a problem.

About 300,000 elderly lived in shared housing in 1982 (Duensing, 1988). Although Ehrlich (1986) identified shared housing as an option for the "marginal" elderly, Turner (1982) found that elderly who were in the low-income bracket and in poor health were the least likely to be interested in shared housing. AARP's (1987) survey of elderly found that blacks and men under age 70 living alone were the most likely to be interested in sharing their home with one or more unrelated people. Men under age 70 living alone and people in highrise buildings were most willing to consider moving into a new home shared by one or more unrelated people.

Board and Care Housing. Board and care housing offers a supportive housing arrangement for elderly and other disabled adults. The general definition of the housing option is "the provision of food, shelter, and some degree of protective oversight and/or personal care that is nonmedical in nature" (Stone & Newcomer, 1986, p. 202). This option may be called by other names, depending on state regulations. Some of the terms used to describe this option are homes for adults, group homes, foster-care homes, rest homes, residential homes, residential-care homes, sheltered-care homes, and domiciliary-care homes (Stone & Newcomer, 1986; Sherwood, Morris, & Sherwood, 1986). Regulations vary widely, but generally they are much less regulated than nursing homes, and they do not qualify as Medicaid-certified facilities. Residents generally rent a room on a monthly basis, and they may share a room with another person. Housekeeping, linen service or laundry, and three meals a day are usually provided in the rental payment (Golant, 1992).

The typical board and care home is a large single-family residence with one to eight elderly people being taken care of by a couple or single person who lives on the premises and is responsible for all housing services, supervision, and assistance (Golant, 1992). Studies conducted in 1982 indicate that there were 25,000 licensed and 5,000 unlicensed facilities that were primarily housing elderly and that about 285,000 elderly persons were housed in these types of facilities (Stone & Newcomer, 1986).

Golant (1992) indicates that residents of board and care types of housing may suffer from dementia problems or are likely to be very frail. These residents are generally in the older age range and many board and care residents have low incomes. AARP's (1987) survey of elderly found that residents of mobile homes and people with incomes between \$16,000 and \$32,000 were most likely to consider moving to a home with an unrelated person or family that provided services.

Summary. The housing options discussed above reflect living arrangements that are supportive yet offer some degree of independence. Each may offer suitable environments for certain individuals at various points in their lives. Many of these options have met with resistance from communities, since they vary from the normative family living arrangement and may suggest modifications in dwelling design or density norms. Studies of residents and those willing to consider these housing options seem to indicate various user groups. Whereas younger black women would consider ECHO housing and accessory apartments, older single men would consider shared housing, and those with modest incomes would consider board and care housing.

Methods

Sample

Surveys were mailed to 750 Virginia Extension Homemakers Council (VHEC) members. The sample was identified by random entry into the membership list and selection of every tenth listing. Complete surveys were received from 452 (60.3% response rate) following one follow-up postcard. Although the survey did not request that a female answer the

questionnaire, less than 1% of the respondents were male. Therefore the focus of the reporting is on a elderly female population and the results are not applicable to elderly males.

Dependent Variable.

Respondents were asked about their awareness, interest, willingness to live (evaluation), and actual experience in living (adoption) in four housing types that had been developed for the elderly: ECHO housing, accessory apartments, home sharing, and board and care homes. Before questions were asked about these options, they were defined as follows:

ECHO Housing - Elder Cottage Housing Opportunity. A small removable house that can be purchased or rented and placed on the lot of an existing house of a friend or relative.

Accessory Apartment - The homeowner's house is modified or divided to include a second unit that can be rented.

Home Sharing - A house sharing arrangement for two or more unrelated individuals to pool their personal, financial, and physical resources. Each has their own bedroom, but share kitchen and social areas. This is an option for homeowners and renters.

Board and care home - Living with an unrelated person or family that provides meals and health related services.

Table 1 indicates that respondents were most unfamiliar with ECHO housing. Over 70% did not know about this option and only 1% had looked for information about it. Respondents had some awareness of shared housing and board and care housing (60% and 62% respectively). Almost 8% of the sample had looked for information about board and care and 40% would consider living in this housing type. Fewer had looked for information about shared housing (3%), but a similar proportion of the sample would consider it as a housing option (37%). An accessory apartment was the most acceptable housing option (47% would definitely or maybe consider living in one); however, respondents were less aware of the option than home sharing or board and care and had sought information about this type at the same rate they had sought information on home sharing.

Table 1. Description of adoption of housing options.

Housing Types	Awareness (seen/read/heard)		Interest (looked for infor)		Evaluation (consider living)		Adoption (lived in)	
	n	%	n	%	n	%	n	%
ECHO	77	17.7	4	0.9	163	37.3	0	0.0
Accessory	234	53.7	16	3.7	205	47.1	9	2.1
House Share	263	60.3	14	3.2	162	37.2	5	1.1
Board	271	62.2	33	7.6	173	39.7	0	0.0

The Adoption variable utilized in this study was calculated based on procedures specified in Kwon (1991) and Weber, McCray, and Claypool (1985). Respondents were categorized into four stages in the adoption process (awareness, interest, evaluation, and adoption) for each of the four housing types. Each level was assigned a point. For example, if a respondent indicated that they had never heard of ECHO housing then 0 was assigned to the awareness stage. If the respondent indicated that they would consider living in this housing option then a score of 1 was assigned at the evaluation stage. The scale (0-16) indicated level of willingness to adopt multiple housing types. Higher scores indicated higher levels of acceptance of housing types.

Independent Variables

Demographic and Innovativeness variables were entered in the regression model. The Diffusion of Innovation theory as applied to acceptance and adoption of housing options has suggested that age, education, income, marital status, employment, sex, race, tenure, and housing type are demographic variables that may impact on adoption. Table 2 describes the sample according to these variables. Race and housing tenure were not available in the data

set. The sample was overwhelmingly female (99%). They were fairly evenly divided into four age groups. The pre-retirees (under age 65) were 26% of the sample and those oldest age ranges (age 75 and over) were 24% of the sample. Thirty-two percent were high school graduates and 13.5% were college graduates. Almost half (45%) reported more than 12 years of schooling. One-fourth of the sample had relatively high incomes (over \$30,00), while only 3.7% reported incomes of less than \$5,000. A high proportion of the sample was married (55%), and over one-third (36%) were widowed. The limited variability in sex and housing type indicated that they would not be appropriate variables to use in further analysis. Therefore, the utilization of demographic variables in the analysis included: education, income, marital status, employment, and age.

Table 2. Demographic characteristics of sample.

Characteristic	n	%
Sex		
Female	449	99
Male	3	1
Age		
>65	91	26
65-69	117	23
70-74	111	22
75+	125	24
Education		
High school of less	214	47
Some college	94	21
College graduate	61	14
Some graduate school	15	3
Graduate degree	33	7
Income		
< \$5,000	16	4
\$ 5,000 - \$ 9,999	59	13
\$10,000 - \$14,999	68	15
\$15,000 - \$19,999	63	14
\$20,000 - \$24,999	61	14
\$25,000 - \$29,999	40	9
> \$30,000	111	25
Marital Status		
Married	251	56
Not married (widowed, single, separated, divorced)	201	44
Employment		
Not working	103	23
Working	19	4
Housing Type		
Conventional home	387	89
Apartment	17	4
Mobile home	11	3
Other	10	2

Innovativeness was determined by a series of 16 questions from a Housing Innovativeness Scale that had been previously used by Gruber, Beamish, Carter, Shelton, and Weber (1990), Kwon (1991), and Till (1988). The items from this scale were factor analyzed and three factors were identified that were similar to the factors reported in the above studies (see Johnson and Beamish, 1993). These factors were: Acceptance of New Housing Types, Willingness to Take a Chance, and Acceptance of New Ideas. The items in the Acceptance of New Housing Types factor were primarily negatively worded questions that were reverse

coded for analysis. When coded changes were made the items indicated an acceptance of new housing and technology associated with housing. The Willingness to Take a Chance factor included items associated with risk taking and experimenting with new ideas. The final factor, Acceptance of New Ideas, appears to indicate an interest in finding out about new things, but not necessarily taking a risk.

Analysis

The effect of the demographic and innovativeness variables on the adoption variable was tested using multiple regression analysis. This analysis strategy was used to determine the relative contribution each significant independent variable makes in predicting the value of the dependent variable, Adoption.

Results

The results of the multiple regression on housing adoption are shown in Table 3. Of the seven variables entered into the regression equation, four emerged as significant predictors of Housing Adoption: education, age, income, and willingness to take a chance. The variables marital status, employment status, acceptance of new housing types, and acceptance of new ideas were not significant predictors of Housing Adoption. Persons who were employed part-time had been identified by AARP as more likely to consider some of these housing types. That finding was not repeated here.

Table 3. Regression analysis of housing adoption.

Independent	b	Beta	t
Education	.4483	.1029	2.178*
Accept new housing	.0676	.0555	0.903
Marital Status	.6233	.0551	1.201
Age	-.0327	-.0964	-2.177*
Willing to take chance	.4050	.2647	5.065*
Income	.3815	.1493	3.043*
Accept new ideas	-.0409	-.0252	-0.390
Employment	.6725	.0654	1.476
Constant	11.9464		
R2		.16	
Adjusted R2		.15	
F		10.770*	
df		8/443	

*Significant at .05 level

Willingness to take a chance (beta .265) was the strongest predictor of Willingness to Adopt AlternativeForms of housing suitable for the elderly; followed by income (.149), education (.103), and age (-.096). The negative beta for age indicates that the younger old of this sample were more willing to adopt alternative housing. This is consistent with the findings of Johnson and Beamish (1993) and Kwon (1991). Income as a significant predictor was anticipated, as those with more discretionary income can better afford the financial consequences of a poor decision, and are more willing to take a chance (Johnson & Beamish, 1993; Kwon, 1991; Rogers & Shoemaker, 1971). However, work by Tripple, et al (1990) suggests that persons with more modest incomes might be more accepting of an alternative such as ECHO housing.

Previous research (Gruber, et al, 1990; Kwon, 1991; Till, 1988) reported factors similar to Willingness to Take a Chance were associated with housing innovativeness and housing adoption. This analysis extends the importance of the personality characteristic of Willingness toTake a Chance and its relationship to housing adoption to the elderly female population.

Discussion and Conclusions

Although most respondents were not aware of the housing types discussed nor had looked for information about the housing types, a large portion were willing to consider living in each of them. The accessory apartment was the housing type that most would consider, perhaps because the homeowner would retain their own home and share it with another. Two percent of the sample was already doing this. The other three options were very similar in the degree to which respondents would consider living in them. The respondents exhibited a discrepancy in their awareness and interest stage and their evaluation stage. This indicates that elderly consumers in this sample have not had a great deal of exposure to these housing types, or they may not have a need or interest in exploring them. However, many would be willing to consider them when the time is appropriate for them to do so.

Whether or not communities allow these options to be placed or not is beyond the scope of the study. However, restrictive zoning practices limit the availability of the options and thus people's awareness of the option and their willingness to adopt it.

Golant (1992) has indicated that many housing choices that offer congregate meals and health related services are selected by consumers when their need for these options is evident. They are not selecting these options for the lifestyle opportunities. This study would seem to support this conclusion, but would indicate a need for educational programming which would introduce these options to the elderly to help them to be aware of what is available when the need is evident. Further programming that can help consumers make the appropriate choice at a crisis point will also be needed.

The data seem to indicate that educational programming to improve understanding and acceptance of alternative forms of housing should focus on subpopulations of the elderly female cohort student here. Those in this population most likely to consider adopting alternative housing are more educated, have higher incomes, and are in the lower age ranges of those over 65 years of age. This does not describe the "marginal" elderly who Ehrlich (1986) indicated were most in need of the community based options identified in this paper. However, it does describe the individual who is most likely to accept innovations early. The relationship should be of interest to policy makers and housing providers seeking to implement home-based alternatives to nursing homes. The target for these housing options initially may need to be the community "trend setters" who will demonstrate its effectiveness, instead of the "marginal" elderly who may be most in need of the alternative, but least likely to accept it simply because of its uniqueness.

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