Expanding the Andersen Model: The Role of Psychosocial Factors in Long-Term Care Use

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Objective. To examine a prevailing conceptual model of health services use (Andersen 1995) and to suggest modifications that may enhance its explanatory power when applied to empirical studies of race/ethnicity and long-term care.

Study Setting. Twelve focus groups of African-American (five groups) and white (seven groups) individuals, aged 65 and older, residing in Connecticut during 2000.

Study Design. Using qualitative analysis, data were coded and analyzed in NUD-IST 4 software to facilitate the reporting of recurrent themes, supporting quotations, and links among the themes for developing the conceptual framework. Specific analysis was conducted to assess distinctions in common themes between African-American and white focus groups.

Data Collection. Data were collected using a standardized discussion guide, augmented by prompts for clarification. Audio taped sessions were transcribed and independently coded by investigators and crosschecked to enhance coding validity. An audit trail was maintained to document analytic decisions during data analysis and interpretation.

Principal Findings. Psychosocial factors (e.g., attitudes and knowledge, social norms, and perceived control) are identified as determinants of service use, thereby expanding the Andersen model (1995). African-American and white focus group members differed in their reported accessibility of information about long-term care, social norms concerning caregiving expectations and burden, and concerns of privacy and self-determination.

Conclusions. More comprehensive identification of psychosocial factors may enhance our understanding of the complex role of race/ethnicity in long-term care use as well as the effectiveness of policies and programs designed to address disparities in long-term care service use among minority and nonminority groups.

Key Words. Race/ethnicity, long-term care, health service use

Use of long-term care services among minority elders is an important topic of research in light of the changing age and ethnic composition of the U.S. population. By 2030, the number of persons older than age 65 in the U.S. is projected to comprise 20 percent of the population (U.S. Census Bureau

2001). By the year 2050, the proportion of persons older than age 65 who are nonwhite will more than double, from 14 percent in 2000 to nearly 30 percent by 2050 (U.S. Census Bureau, 2001). Because rates of disability and chronic illness increase with age and are greater for minority than for white elders (Gibson and Jackson 1987; Clark 1997; Jones, LaVeist, and Lillie-Blanton 1991), these demographic trends suggest that long-term care needs, especially by minority groups, will become increasingly important in the next decades.

Increased attention has been directed at the use of long-term care services by minority and nonminority groups in the health services literature in recent years. The vast majority of these rely on a single conceptual model of service use: the Andersen and Newman Behavioral Model of Health Service Use (Andersen and Newman 1973; Andersen 1995). Our research objectives were: (1) to augment this model in ways that may enhance its explanatory power when applied to empirical studies of race/ethnicity and long-term care, and (2) to suggest factors that may vary by race/ethnicity and have not previously been incorporated into empirical research in this area.

Most research on the role of race/ethnicity in long-term care use focuses on nursing home and home care services. Less attention has been paid to other forms of long-term care, including adult day care and assisted living, due to the relative newness of these services and the smaller proportion of public resources expended on such services. Accordingly, this brief review focuses on nursing home and home care use.

Studies of nursing home use generally conclude that African-American and Hispanic elders are less likely than white elders to use nursing homes (Mui and Burnette 1994; Greene and Ondrich 1990; Wallace et al. 1998). In most studies, the race/ethnicity effect persists even after adjusting for disability, socioeconomic status, living arrangement, and availability of formal services.

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Findings regarding home care use are less consistent. Studies using national data generally have not found significant differences in formal home care use by minority and nonminority groups (Miller et al. 1996; Clark 1997). Conversely, other studies suggest that differences in use do exist by race/ethnicity. Some of this research has demonstrated that minority elders are more likely than white elders to use home care services (Kemper 1992; Greene and Monahan 1984; Mui and Burnette 1994; Mitchell and Krout 1998); other studies have found that minority elders are less likely than their white counterparts to use home care services (Wallace, Levy-Storms, and Ferguson 1995; Morrow-Howell and Proctor 1994; Tennstedt and Chang 1998).

The Andersen model (1973; Andersen 1995), developed to study determinants of acute care health services use, has been used frequently in studies of long-term care and race/ethnicity (Mui, Choi, and Monk 1998). The model posits that health services use is determined by societal factors, health services system factors, and individual factors. Individual factors, the focus of many empirical studies, are categorized as need, enabling factors, and predisposing factors. Need includes individuals' perceived and evaluated functional capacity, symptoms, and general state of health. Enabling factors encompass family and community resources and accessibility of those resources. Predisposing factors include age, sex, marital status, education, race/ethnicity, and occupation, as well as a set of beliefs (e.g., attitudes toward health services, knowledge about disease, and values).

We argue that two aspects of the model can be enhanced to better guide future investigations regarding long-term care use because it may vary by racial/ethnic groups. First, although the Andersen and Newman model includes "beliefs," which include attitudes toward health services, knowledge about disease, and values (Andersen and Newman 1973), limited attention has focused on psychosocial factors. "Beliefs" as described by Andersen and Newman may not adequately capture the breadth of psychosocial factors germane to race/ethnicity-related variations in long-term care use. These factors may be more important for long-term versus acute care because long-term care involves assistance with routine personal tasks (e.g., cooking, shopping, hygiene maintenance, dressing, bathing, and toileting), about which individuals may have specific knowledge and strong attitudes. Second, although the Andersen model (1995) identifies predisposing, enabling, and need factors as determinants of service use, it does not explore fully how these three domains, or their measures, are interrelated. For example, the model combines race/ethnicity with other demographic characteristics included as predisposing factors. Although these predisposing characteristics are similar in

that they have low mutability (Andersen 1995; Aday and Awe 1997), each variable may interrelate with the other factors in different ways. This is potentially problematic in studies of race/ethnicity, in which omission of such interrelationships may oversimplify the role of race/ethnicity in service use.

METHODS

Study Design

This study employed focus group methodology, a qualitative approach especially well suited for research that is exploratory (Morgan 1998; Sofaer 1999) and that involves personal and social constructs (Crabtree and Miller 1999), as does the topic of this inquiry. Twelve focus groups with 5–12 members (mean number of members = 8) in each were conducted during the year 2000. Focus group participants ($n = 96$) were recruited from senior centers, assisted living facilities, religious organizations, and public housing facilities in Connecticut. Members' ages ranged from 50–85 years, and about three-quarters were women. Both African-American and white focus groups reflected a large range of socioeconomic levels; approximately 40 percent had less than \$25,000 in assets, while about one-third had more than \$200,000 in assets. Income ranged from less than \$1,000 per month (for just more than 20 percent of participants) to \$5,000 or more per month (for nearly 30 percent of participants). Participants' experience with long-term care services varied, although all participants had either used services or been involved with the care of family and/or friends who had used such services.

Stratified purposeful and homogeneous techniques (Crabtree and Miller 1999) were employed to assemble the focus groups. Groups were stratified based on race/ethnicity. The relative merits of homogeneous versus heterogeneous groups have been debated (Brown 1999). For this study, it was important to have group members share a characteristic (i.e., race/ethnicity) to facilitate exchange of information. Hence, the homogeneous method was used to enhance discussions about long-term care behaviors.

Five of the groups included African-American older adults, and seven included white elders. Sessions were approximately 1.5 hours in length and were conducted in locations both familiar and accessible to participants, including retirement communities, senior centers, adult day care settings, and public housing facilities. A trained and experienced focus group moderator facilitated each group, with a second observer and recorder present. All sessions were audio taped, and a monetary incentive of \$25 per person was

provided for ten of the twelve groups. The protocol was approved by the Institutional Review boards of the Yale School of Medicine and Hartford Hospital.

Instrumentation

A series of five guiding questions with structured probes was developed by a multidisciplinary team including a sociologist, an anthropologist, an epidemiologist, two state policymakers, and two gerontologists. A panel of long-term care consumers and advocates for comprehensibility and scope also reviewed the guide. The discussion guide asked: (1) what the participants would do if they needed help with activities of daily living; (2) their perceptions of a variety of long-term care services including home care, adult day care, nursing homes, assisted living, and informal care; (3) the advantages and disadvantages of each type of care, including what might keep one from using needed long-term care services; (4) important social referents who they would turn to for help in making a decision about long-term care; and (5) their views about the role of race/ethnicity in making long-term care decisions. The first question was framed in terms of intentions because we wanted to identify the process by which individuals make long-term care decisions. For our inquiry, long-term care included nursing home, assisted living, home care, and adult day care services. Because long-term care includes a wide range of services to support those with physical and cognitive impairments, it was important to explore multiple services to elicit a comprehensive set of potential determinants of use.

Data Analysis

Audio taped data were transcribed and then analyzed using the constant comparative method (Glaser and Strauss 1967) of qualitative data analysis. Using this method, researchers coded quotations from the transcripts that exemplified a common concept. As additional quotations were coded, these quotations were compared to similarly coded quotations in the transcripts. This process of comparison enhances consistency and expands the dimensions and comprehensiveness of each code. Codes were later combined or synthesized into broader, recurrent themes, which form the basis of the conceptual model.

Coding of the data was accomplished in a series of iterative steps. A provisional "start list" of codes (Miles and Huberman 1994; Lincoln and Guba 1985) was developed based on the current Andersen model of health

care utilization (Andersen 1995) and the objectives of the research. This initial code list was used to organize transcripts of the first two groups and was then refined during review and analysis of subsequent transcripts. During its development, the code structure was reviewed twice by the research team for logic and breadth. Members of the research team (EB, SM, LC) independently coded all transcripts, then came together to code in several joint sessions, achieving consensus and assigning codes to observations by group process. Disagreements were more common among codes that were close in meaning and were resolved through further discussion and enhanced definition of codes. With the final coding structure, two researchers (EB, LC) separately reviewed three randomly selected transcripts again. There was agreement in 83 percent of the codes applied, indicating good reliability in qualitative research (Boyatzis 1998). Transcripts were entered, coded, and analyzed in NUD-IST 4 software (Sage Publications Software, Thousand Oaks, California) to facilitate the reporting of recurrent themes and supporting quotations, as well as the links among the themes for developing the conceptual framework, using features of the software described elsewhere (Weitzman 1999). Specific analyses using intersection reports were conducted to assess thematic patterns within African American and white groups. Common themes are described in general terms to identify factors that potentially influence (positively or negatively) long-term care use.

Several strategies suggested by experts in qualitative research (Miles and Huberman 1994; Devers 1999) were used to ensure that the analysis was systematic and verifiable. These strategies included consistent use of the discussion guide, audio taping and independent professional preparation of transcripts, use of multiple researchers with diverse backgrounds for data analysis, standardized coding and analysis, and creation of an audit trail to document analytic decisions.

RESULTS

Overview of the Major Tenets of the Proposed Expanded Model

Focus group data suggested several propositions concerning the use of long-term care services. First, a set of psychosocial factors, which we characterized as attitudes and knowledge, social norms, and perceived control, were identified as determinants of service use. The detailed articulation of psychosocial factors expands the existing Andersen model (Andersen 1995) by providing greater depth to this aspect of predisposing factors and is

consistent with the Theory of Planned Behavior in social psychology (Ajzen 1991; Fishbein and Ajzen 1975). The Theory of Planned Behavior posits a set of factors that influence decisions concerning planned, or intended, behavior. These factors include attitudes or beliefs toward behaviors, subjective and moral norms, and perceived behavioral control (Ajzen 1991). Although not all long-term care choices can be planned, the theory provides a reasonable conceptual frame for our inquiry. Second, the expanded model proposes a set of complex interrelationships among psychosocial, enabling, and need factors. Finally, our research suggests that the effect of race/ethnicity on long-term care service use may be mediated in part by psychosocial factors (attitudes and knowledge, social norms, and perceived control).

The factors, domains, and themes identified are summarized in Table 1. A schematic of the model linking the domains is shown in Figure 1. Although intended and actual use are depicted in Figure 1, the focus of our inquiry was *intended* use. Participants typically described determinants of intended future use, rather than current use. Nevertheless, our analysis suggested that previous service use can influence intended future use through its effect on individuals' current perceptions of services. The influence of past experiences on intentions is denoted in Figure 1 by the dotted line with arrowhead. Because the inquiry focused on intended use, rather than actual use, we have less information about the link between intentions and actual use or the mediating factors that might help explain this link. Hence, we have depicted the relationship between intended and actual use with a dotted, rather than solid line.

Psychosocial Determinants of Long-term Care Service Use

Psychosocial determinants included three domains: attitudes and knowledge, social norms, and perceived control.

Domain of Attitudes and Knowledge

Attitudes. Attitudes were defined as personal views concerning the use of long-term care services and were characterized by four major themes: (1) care providers, (2) affordability, (3) social environment, and (4) self-determination. Attitudes were described as having a direct effect on intended long-term care service use, as denoted by path (a) in Figure 1.

Care Providers. Care providers (i.e., staff for formal care, family or friends for informal care) were often discussed as participants described their perceptions of long-term care. Two dimensions of care providers (or staff)

Table 1: Summary of Factors, Domains, and Major Themes

<i>Factors</i>	<i>Domains</i>	<i>Major Themes and Their Dimensions</i>
Psychosocial	Attitudes	Care Providers Technical expertise Interpersonal skill
		Affordability Perceived expense Home ownership
		Social Environment Social interaction Activity level Familiarity Diversity
		Self-determination Privacy Dignity Independence
		Content and Amount of Information Service types provided Eligibility rules Legal/regulatory issues Financial coverage
	Knowledge	Sources of Information Family/friends Lawyers Medical professionals Clergy
		Accessibility of information Attainability Comprehensibility
		Referents Spouse, children Friends, neighbors Social workers, clergy, doctors, lawyers
		Relevant Norms Family burden Caregiving expectations
		Role of Choice Decision maker Alternatives
Enabling	Perceived Control	Planning for Future Needs Financial planning Psychological planning
		Formal Services Openings at facilities/waiting lists Hours of operation Proximity
		Informal Support Willingness to provide support Ability to provide support proximity
		Financial Well-being Income Assets
		Protection against Risk Insurance
	Availability of Support	Degree of Disability Physical Cognitive
		Duration of Disability Physical Cognitive
Need	Objective/Perceived	

Figure 1: The Role of Psychosocial, Need, and Enabling Factors in Long-term Care Use

emerged: their technical expertise and their interpersonal skills. Technical expertise included previous training and experience, supervision, reliability, and knowing how to handle emergencies. In contrast, interpersonal skills included trustworthiness, comfort or compassion, and listening and communication skills. Common statements illustrate these themes.

(First participant): They have a nursing pool that these nursing homes pick from. These women come in and they don't know the patients. They just throw them in there and ask them to do a job. (Responding participant): They're [nursing homes] short-handed; they have to get the help from somewhere. Even if it is not that good. (F 9, lines 1407–16, 1430–32, white)

I have heard of instances where the home care person is not really responsible and doing what they are supposed to do... There have been cases of stealing. I know a few cases like this, and that is a big disadvantage. (F 12, lines 77–9, 82–4, African American).

I had the same [home care] nurse after two operations, and she was more of a friend and just a very concerned and loving person. (F 6, lines 28–31, white)

Affordability. Most participants mentioned economic concerns. Because one's views about the affordability of services can be distinct from one's objective income and wealth, attitudes concerning affordability were

characterized as psychosocial variables while income, assets, and insurance were retained as enabling variables.

Two dimensions of affordability were described: the perceived expense of services and the impact on home ownership. The potential loss of one's home to pay for long-term care service, though closely linked to the perceived expense of service, had a symbolic importance greater than the asset value of the home. People referred to losing their home as losing "everything" or losing "what they worked their whole life for."

We need to think about this more because a lot of us think we can't afford these things [long-term care services]. We can [afford them], and it does not take that much money; we can. (F 3, lines 1349–52, African American)

(One participant) I wouldn't want to go into a nursing home only because they are so expensive, and I feel I would lose my home that I spent so many years to pay for. (Another participant) I think I would go to any extreme so I wouldn't lose my house. (F 9, p. lines 139–43, 292–3, white)

Social Environment. Social environment was comprised of several dimensions including: social interaction, activity level, familiarity, and diversity. As participants said,

One advantage [of assisted living] is you could be together with people your own age. You can participate in activities. (F 12, lines 158–69, African American)

I think the biggest advantage of home care is the fact that they are in familiar circumstances. They don't have a big disruption. (F 8, lines 72–4, white)

(One participant): You're going to get people of different races and they are cliquish in themselves.... (Responding participant): It's better when there is some sameness.... (Another responding participant): I think some uniformity of background is helpful, but I would hate to have absolutely the same background. (F 7, lines 685–7, 742–3, 751–4, white)

Self-determination. Dimensions of self-determination included privacy, dignity, and independence. Many espoused the importance of these aspects of self-determination and their influence in long-term care decision making. For instance, illustrating the influence of privacy concerns, one participant said about home care staff,

You don't know these people [home care staff], and they are in your home, and you must tell them how you stand, and right away they are going to ask for your social security number. It makes it *very* hard. (F 10, lines 306–9, African American)

Other participants focused on other dimensions of self-determination, such as dignity in long-term care; for instance, one focus group member said,

It makes it even worse to require this [long-term care services] suddenly, because it takes away all of their dignity. And nobody wants to lose that. It's unbelievable. (F 10, lines 338–42, African American)

Knowledge. Consistent with the Andersen model, knowledge was identified as a determinant of long-term care service use. The interrelationship between knowledge and attitudes was apparent and difficult to disentangle, as illustrated by the following quotation.

If they knew more about it, they would feel more comfortable with it [long-term care services]. (F 3, lines 701–3, African American)

Within the knowledge domain, several themes emerged: the content and amount of information available, the source of the information, and the accessibility of the information. Gaps in knowledge were commonplace among both African-American and white participants, who reported inadequate information about the types of services offered, eligibility rules, legal and regulatory issues (e.g., licensing and supervision requirements), and financial coverage for different services. Sources of information varied greatly and included family, friends, social workers, other medical professionals, lawyers, and clergy. Accessibility of information included its attainability and its comprehensibility. Knowledge was hypothesized to have a direct effect on use, as demonstrated in Figure 1.

It's information that you don't know, questions you don't know to ask...it's not my field of expertise, so I have no knowledge of what's going on. I am a total layperson. I know nothing. (F 3, lines 739–45, African American)

I would seek the sources of information that I need. What I did was call a visiting nurse who had been recommended, and finally I learned from doctors and nurses in the hospital that there were these home care aides. (F 7, lines 769–74, white)

I guess enough information is given, but it just goes in one ear and out the other. Here I am with guidance and a desk drawer [full of information] and I still don't know what the hell to do. (F 5, lines 515–6, 521–3, white)

Domain of Social Norms. The domain of social norms included two themes: the decision makers who participants considered legitimate sources of authority (i.e., referents), and a set of norms of behavior. Referents and norms of behavior were hypothesized as having a direct effect on long-term care service use, as shown by path (b) in Figure 1. The role of referents in long-term care decision making is illustrated by these statements.

Well, I would certainly seek the advice of my children and my minister. I would feel more comfortable in talking this through with him, and have him help us come to a decision as to what to do with me. (F 10, lines 1041–6, African American)

She [social worker] gave a lot of very good suggestions about how to cope with living at home. So that's something you have to remember. Every town has a social worker and they can help with this decision. (F 9, lines 959–64, white)

The most common norms described as influencing long-term care decision making pertained to family burden and caregiving expectations. Imagining themselves as long-term care recipients, nearly all participants stated concern about burdening family. In contrast, imagining themselves as caregivers, participants described caregiving expectations.

I'm from the rural south, and you just don't put your parents in a nursing home. (F 3, lines 489–91, African American)

Within some ethnic groups, they're used to taking care of the family one way or another. Therefore, moving out of the family is almost verboten and very, very traumatic. (F 3, lines 630–3, white)

In addition to the direct effect of social norms on use, social norms may be influenced by enabling factors, as depicted by path (e) in Figure 1.

Anybody would rather be in the home, rather than go away to a nursing home, but it depends upon whether you have anybody that you can fall back on. (F 3, lines 939–43, white)

This society has changed immeasurably. You no longer have extended family to support you in most cases. So you need these institutions or organizations. (F 7, lines 169–73, white)

Domain of Perceived Control. As the third domain of psychosocial factors, perceived control referred to individuals' perceived ability to effect their choices for long-term care. The perceived control literature is extensive and diverse (Godin, Valois, and Lepage 1993; Schulz and Heckhausen 1999; Skinner 1996; Rodin 1986). Reflecting participants' discussions, we refer to a circumscribed view of control, pertaining specifically to long-term care use. Two themes characterized this domain: role of choice and approach to planning. Perceived control was hypothesized to have a direct effect on use, as shown by path (c) in Figure 1.

Role of choice included two dimensions: the decision maker and the feasible alternatives. In some cases, participants described that family, not the individual, makes the long-term care decisions, hence limiting individual

choice. Several participants also described the range of feasible alternatives as influencing choice.

We are talking about a no choice situation. In other words, when people are sent off to a nursing home, it is not a matter of choice. (F 8, lines 352–5, white)

There are a lot of people that *have* to go [to long-term care facilities]. That's the sad part. I think a lot of us would like to keep our people home and take care of them...but the situation gets out of hand sometimes and you have no choice. (F 13, lines 354–9, African American)

The theme of planning suggests that long-term care decision making can be a process that unfolds over time and includes both financial and psychological planning for future needs. Referring to these differing aspects of planning, participants stated:

I can speak for myself. There isn't one darn thing I can do about it [financial planning for long-term care]. My income is set and I don't see much prospect of increasing it. (F 4, lines 697–700, white)

People say "I'm not ready yet." They have the money. What they don't have is the ability to project what's going to happen if they don't move within a certain framework of time. So I think one of the big things is denial of the situation. (F 8, lines 591–6, white)

Lots of times physically you're not capable of getting from here to there, but where your mind is, that's a totally different case. Even for your family. They could see you in one place, and you could not mentally or psychologically accept it. (F 10, lines 1114–9, African American)

Perceived control was described as being influenced in some cases by enabling factors such as income and service availability, as shown by path (f) in Figure 1.

Actually, a nursing home is a place where people are forced to go. They don't have the means or money to go to a better place. (F 10, lines 782–5, African American)

My sister couldn't go to that home because they didn't have rehabilitation services in that home. So she had to go somewhere else. So, you don't have too many choices sometimes. (F 9, lines 712–6, white)

Enabling Factors as Determinants of Long-term Care Service Use

Consistent with the prevailing model of health services use (Andersen 1995), enabling factors were identified as potential determinants of service use. Variables identified as enabling factors have varied across previous studies.

Availability of Formal and Informal Services

The availability of both formal and informal support was identified as having direct effects (path [d] in Figure 1). Illustrating this direct effect, participants stated:

(One participant) There are some concerns about adult day care because they have to be scheduled in some organizations that do not function seven days a week. (Another participant in same group) And it is very important to apply early because most of them are crowded and [it is difficult] to get on a waiting list. (F 6, lines 622–5, 1002–4, white)

Under those circumstances, [when family] do not have time to visit, the patient would be better off in a nursing home. So much depends on the person and the family. (F 8, lines 82–6, white)

Financial Resources. Financial resources were also identified as enabling factors associated with use (path [d] in Figure 1), and with perceived control (path [f] in Figure 1). For instance:

Why are they at home? They are at home because they can't financially handle any other kind of situation. It isn't what services there are; it is what services you can afford that you have to think about. (F 8, lines 516–8, white)

Need as a Determinant of Long-term Care Service Use

Need was described as a central determinant of long-term care use, as suggested by both the Andersen model (Anderson 1995) and extensive research in health services use. Both the degree and duration of disability were identified as determinants of whether and what type of long-term care one seeks. Perceived, rather than objective, need was described due to the nature of focus group data. In general, however, need includes both perceived and objective need, and disability includes both physical and cognitive disability. Focus group participants expressed a matching of needs with long-term care services used, suggesting a direct effect of need on use, shown by path (g) in Figure 1.

I think the more severely disabled the person is, the greater the chance they would go into some sort of institutional setting. (F 9, lines 902–5, white)

When my mother turned 96, she lost her marbles, overnight almost. We decided she needed a nurse, 24 hours a day in her home (F 8, lines 38–41, white)

The influence of need on availability of services and support suggested that the effect of need may have an indirect effect on use,

mediated by enabling factors (path [h] in Figure 1) and changing over time.

I think that for a while...my wife would probably help, but there comes a time when it becomes too much, and then perhaps I would go to a [long-term care] community of some kind. (F 9, lines 46–51, white)

If it was just a temporary thing, I might be able to depend on friends and family members, but if I started lingering, I would instruct them to call one of the home care agencies. (F 10, lines 32–6, African American)

Finally, we hypothesized that perceived need could influence attitudes toward long-term care, as shown by path (i) in Figure 1. As an example, participants' perceived disability might influence one's attitudes concerning self-determination and technical expertise of various long-term care providers.

I think it is wonderful if you need it, like ...if you are dying and very sick, a nursing home does help. (F 2, lines 308–11, white)

My aunt lives within a mile of a nursing center where she volunteered. But she is having a hard time seeing herself go now, as a client. (F 10, lines 572–7, African American)

Patterns among African-American and White Focus Groups

Several distinctions were apparent between the African-American and white focus group members' discussions concerning certain determinants described in Figure 1. Although statistical associations between race/ethnicity and these factors could not be examined based on the study design, findings from these qualitative data help frame hypotheses to be formally tested in future quantitative studies.

African-American and white focus group members differed with regard to three psychosocial factors described as potential determinants of long-term care use in the proposed model. Differences were identified with regard to: (1) the accessibility of information, (2) social norms concerning caregiving expectations and related burdens, and (3) concerns of privacy and self-determination.

Accessibility of Information

African-American and white participants differed in the domain of knowledge. Although both African-American and white participants reported feeling uninformed about long-term care options, African-American participants also indicated that they did not know how to access needed information.

White participants, while acknowledging their limited knowledge, knew how they would obtain information, if needed.

I had a very hard time trying to find information when my dad came... it's not as though they're telling you everything, if you don't know what to ask. Everybody says ask the right question. Well, you would if you knew it. (F 3, lines 717–21, African American)

I would see the sources of information that I need. What I did was call a visiting nurse which had been recommended, and finally I learned from doctors and nurses in the hospital that there were these home health aids... You don't carry the knowledge through life where to turn, but when the need comes, you seek out the sources. (F 7, lines 769–78, white)

Social Norms Concerning Caregiving Expectations and Burden

Second, social norms concerning caregiving expectations differed between African-American and white participants, despite some common views. In all groups, participants described not wanting to burden family members and friends for long-term support.

I really think I have an obligation not to be a burden to anybody. (F 5, lines 744–5, white)

The disadvantage [with using family or friends for long-term care] is you don't want to impose on them to come from a distance, or come daily. You feel like you're imposing upon your friends and family. And you don't want to do that. (F 10, lines 942–7, African American)

African-American participants, however, commonly expressed views that one should provide long-term care for family members. Participants described caregiving as an expectation in families and rarely discussed caregiver burdens. This finding is consistent with literature reviews (Connell and Gibson 1997) of caregiving and race/ethnicity.

My mother, she birthed me; she raised me; she gave me a good education; she has taken good care of me, and now it is my turn to take care of her. (F 3, lines 185–8, African American)

My mother focused her mind on, "I don't want to go to a convalescent home." She wanted her children to take care of her. And we did. (F 13, lines 868–70, African American)

In contrast, white participants did not commonly describe this caregiving expectation but rather focused on the caregiver's burden and the

value of having relief or respite from caregiving burdens, by using some formal long-term care services.

I found home care a great relief for [me]. It took the load off the family's shoulders. (F 5, lines 39–41, white)

[Adult day care] takes the responsibility off the caretaker, which is a very necessary thing in many cases. The stronger spouse is relieved of those daily duties and can live his or her own life more completely. (F 7, lines 149–55, white)

Self-determination and Privacy

A final distinction between the African-American and white focus groups was reflected in concerns related to the factor of self-determination and one of its dimensions, privacy. Specifically, African Americans described concerns about losses in privacy, which were not apparent among white focus groups. When asked to describe advantages and disadvantages of various services, African-American participants described suspicions of long-term care staff, whom they referred to as strangers, and questioned the degree to which they would honor one's wishes.

With an invalid person at home, you have [home care staff] come into your house, and you are at their mercy. [Another participant] People feel intimidated because they are in your home. [First participant] The other thing that makes it difficult is divulging all your financial standings with strangers. (F 10, lines 194–6, 296–302, African American)

The [home care staff] are intruding going into private parts of the house that they shouldn't be in. There have even been instances of stealing. (F 12, 180–3, African American)

Concerns about self-determination extended to suspicions about long-term care organizations and concerns that the family could not ensure adequate care for the elder unless they provided the care themselves or supervised the professional caregiving closely. African Americans described the responsiveness of the system (e.g., providers, insurance companies, health care organizations, and informational agencies) to their needs as poor.

DISCUSSION

The proposed model expands the existing Andersen model (Andersen 1995) in several ways. First, we identify a set of psychosocial factors in long-term care use. The inclusion of these factors is consistent with the Theory of Planned

Behavior (Ajzen 1991) suggesting that psychosocial factors play a role in a wide range decisions and subsequent behaviors. Our findings specify the nature of these factors in the context of long-term care decisions. Although the existing Andersen model includes beliefs as predisposing variables, few recent empirical studies (Keysor, Desai, and Mutran 1999; Beidenharn and Normoyle 1991) have tested this aspect of the model. Second, we suggest mechanisms by which need, enabling, and psychosocial factors may be related in long-term care decision making. In the expanded model, psychosocial determinants, an expanded component of the predisposing factors, follow rather than precede enabling and need factors. This is consistent with the theme that the Andersen model is recursive (Andersen 1995; Andersen and Davidson 1997) and some predisposing factors can be influenced by, as well as influence other factors in the model. Third, our findings suggest that the psychosocial factors may be mechanisms by which race/ethnicity may influence use. Although this may also be true for other predisposing variables such as age, gender, and education, analysis of these variables was beyond the scope of our inquiry.

Differences in potential determinants found in this study suggest that psychosocial variables may mediate the effect of race/ethnicity on long-term care service use. African-American, in comparison to white, elders perceived poorer access to needed information, reported stronger norms of family caregiving, and had more concerns about potential loss of privacy and self-determination in long-term care settings. Although the effect of these differences in psychosocial factors remains an empirical issue, the hypotheses generated from our data indicate that more sophisticated modeling of race/ethnicity is important for understanding patterns of use among different groups.

The primary strength of this study is its methodology, designed to develop a theoretical framework for examining use of long-term care. The qualitative approach is fitting to this objective and was implemented in a systematic and comprehensive way. Nevertheless, limitations of the study warrant note. First, the focus groups took place among two racial/ethnic groups in a limited geographic area. Although our resulting conceptual framework is broad, additional concepts may be apparent among other racial/ethnic groups and in other geographic areas. Second, some of the hypothesized differences by race/ethnicity may result from differences in socioeconomic status; however, we tried to limit this possibility by including participants from a large range of socioeconomic status in both the African-American and white focus groups. Third, the model, which focuses on

intentions, did not assess additional factors that might come between intended and actual use and whether such barriers may be more common in one racial/ethnic group. Finally, because it is necessarily abstract, the model does not identify differences in determinants of service use by type of long-term care service. Factors that predict discretionary versus nondiscretionary or institutional versus community-based service use may be quite different, as has been noted by Andersen (1995) and Aday and Awe (1997). Nevertheless, as a conceptual framework, the proposed expanded model offers a set of factors that are potentially important, recognizing that the magnitude, direction, and significance of their effects are likely to vary by type of service. This remains an empirical, as opposed to a conceptual, concern.

The study has implications for long-term care policy and service delivery. Efforts to improve access and quality of services across the continuum of care must address factors that are most germane to individuals' decisions to use services. Our research posits that psychosocial factors can play important roles in long-term care use. To the degree these factors are mutable, they provide added policy levers for affecting service use.

In addition, the suggestion that African-American and white elders may differ substantially in terms of key psychosocial determinants of service use has implications for initiatives underway to enhance public awareness of long-term care. Outreach and education programs may be more effective in maximizing choice of long-term care use among diverse populations if they address relevant social norms, attitudes and knowledge, and perceptions of control among these groups. Further, information dissemination strategies must be sensitive to the needs of diverse populations.

By expanding the behavioral model first proposed by Andersen and Newman (1973) and further refined by Andersen (1995), we seek to enhance its explanatory power in future studies of race/ethnicity and long-term care use. In addition to replicating our findings in other geographic areas and among other ethnic groups, future research should empirically test the proposed model. Such testing will require development of valid measures of psychosocial factors and use of multistage statistical modeling to adequately assess direct and indirect effects hypothesized in the model. Specifically, the expanded model suggests that race/ethnicity and perhaps other previously termed predisposing factors influence intended service use through their impact on several psychosocial factors. The degree to which the full effect of race/ethnicity or other predisposing factors is mediated by psychosocial factors remains an empirical issue, an issue that can be best tested with models that adequately assess alternative causal pathways among these factors.

Without such innovation, the complex role of race/ethnicity in long-term care use will likely remain oversimplified and poorly understood. A better understanding of the psychosocial determinants of service use may enhance the effectiveness of policies and programs designed to address disparities in long-term care service use among minority and nonminority groups.

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