

Who Recommends Long-Term Care Matters

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Purpose: Making good consumer decisions requires having good information. This study compared long-term-care recommendations among various types of health professionals. **Design and Methods:** We gave randomly varied scenarios to a convenience national sample of 211 professionals from varying disciplines and work locations. For each scenario, we asked the professional to recommend the appropriate forms of long-term care. **Results:** Although the professional respondents used the full spectrum of options offered to them, some professionals tended to favor the sector they worked in. Advanced practice nurses recommended day care and homemaking more and adult foster care less. Gerontologists used skilled nursing-facility placement more actively and rehabilitation, homemaking, and home health care less actively. Geriatricians and primary care physicians both favored rehabilitation and skilled nursing-facility care and were both less enthusiastic about assisted living, homemaking, and informal care, but the geriatricians favored day care more than did the primary care physicians. Registered nurses were highly supportive of assisted living, adult foster care, homemaking, and home health care, and they opposed skilled nursing-facility care. Social workers were less likely than other participants to endorse rehabilitation and adult foster care. **Implications:** Because consumer preference should be a major factor in making long-term-care decisions, many consumers need information about what options may best fit their situation. In the absence of empirical data on which types of long-term care work best for whom, consumers have to rely on expert judgment—but that judgment varies. Clients should be aware that an expert's background (as defined by discipline and work situation) may affect his or her recommenda-

tions. Each discipline appears to have its own set of experiences and beliefs that may influence recommendations.

Key Words: Long-term care, Discharge planning, Placement, Disciplinary bias

Although client and family preferences lie at the heart of decisions about long-term care, making informed decisions requires having information about options and their relative risks, costs, and benefits. Discontent with information and options in long-term care is rampant (Henry J. Kaiser Family Foundation, 2005; R. L. Kane & West, 2005; Winakur, 2005). Nonetheless, choosing a long-term-care course often means opting from among restricted choices. Even in this instance, some choices are likely to be better than others. Better decision making should be feasible.

Good decision making requires several conditions: a structure that organizes and separates the steps, facilitation to allow patients and families to understand what is involved intellectually and emotionally, and information on the salient aspects of the alternatives under consideration. Ideally, long-term-care planning should involve a two-step process. The first step, which is the focus of this article, should be to identify the type(s) of service, based on client characteristics (e.g., types and extent of disabilities, cognition, continence, depression) that is most likely to achieve the outcomes the client is seeking to maximize (e.g., function, autonomy, safety). Once the client selects the preferred modality of care, the second level of decision making should then address which supplier of the selected service is most appropriate, based on a different set of preferences. Relevant information for this stage should describe the characteristics of the alternative providers of care. For example, access, quality of care, ethnic composition of clients, or availability of housing types might be important to some consumers. Making better long-term-care decisions means considering more closely how to structure such decisions and how to provide as much information as possible.

Ideally, decisions should be based on strong empirical data about which type of care works best

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Table 1. Scenario Components

| Randomly Varied | Single Elements Used Separately |
|--|---|
| ADL problems (high, medium, low) | Living situation (alone, with spouse) |
| Behavioral problems (Y/N) | Entry situation (discharged from hospital, entered from community) |
| Cognition problems (high, medium, low) | Prognosis (< 6 months, 6 months) |
| Incontinence (Y/N) | Depression (Y/N) |
| | History of falls (Y/N) |
| | Use of health services (heavy/light) |
| | Financial status (on Medicaid, Medicaid eligible, savings < 6 months, savings > 6 months) |
| | Family assistance (Y/N) |
| | Friends in the community (Y/N) |
| | Personal autonomy important (Y/N) |

Note: ADL = activity of daily living; Y = yes; N = no.

for different types of clients. Empirical data on how different types of long-term care affect various outcomes are scarce. Unfortunately, the field lacks good data on which types of long-term care are best suited for clients with different characteristics (Edwards, Reiley, Morris, & Doody, 1991; Evans & Hendricks, 1993; Haddock, 1991; Kennedy, Neidlinger, & Scroggins, 1987). Instead, clients must often rely on the advice of individuals whom they expect to be knowledgeable. This article starts with the presumption that little evidence-based information is available on which to base decisions about the best alternative forms of long-term care for a given client. Given this limitation, the next best substitute is expert judgment. The question then is: How consistent is such expert advice, and what factors may be associated with variation in that advice?

Although clients may turn to experts for basic information about the relative effects of alternative forms of long-term care, more often they will ask experts of varying professional backgrounds (i.e., training and work situation) for recommendations and suggestions about which type of long-term care is best suited for a particular patient. Informed, deliberate long-term-care decision making depends on having a strong empirical basis for these decisions. The background of the professional making the recommendation may to some extent influence the kind of recommendation made. Professionals may be inclined to favor the areas with which they are most familiar. For example, in a study of treatment recommendations for prostate cancer, urologists differed from radiologists; each preferred the approach they knew best (Fowler et al., 2000). In order to understand the decision-making process that takes place during planning for long-term care in the real world, it is desirable to understand if and how the characteristics of the person making the

recommendation affect the type of long-term care recommended. Research in this area, however, is scant.

Some researchers have suggested that the variation in professional judgment is a good reason for employing interdisciplinary teams (Drinka & Clark, 2000; Saltz, McVey, Becker, Feussner, & Cohen, 1988; Ziegler, Hyer, Fulmer, & Mezey, 1998), although others have worried about the cost of such efforts (R. A. Kane, 2002). Moreover, assembling such teams in the midst of a confusing and tense discharge process may be difficult.

Given the lack of strong empirical data on the efficacy of long-term care, we asked a sample of long-term-care professionals from a variety of disciplines and settings for their recommendations about which types of long-term-care treatment would be appropriate for a series of hypothetical clients with varying characteristics. For this article, we analyzed those responses, looking for differences attributable to respondent features.

Methods

We solicited a convenience sample of professionals from a variety of long-term-care-related disciplines in both practice and academe to participate in this study. In some cases, we contacted the participants directly. We relied on a snowball sampling approach, asking participants to help us recruit others. In other circumstances, we contacted organizations associated with aging and long-term-care (e.g., American Medical Directors Association, American Geriatrics Society, New York University Gerontological Nursing Program, American Health Care Association, and American Association of Homes and Services for the Aging) to request the names of potential participants. Most organizations were reluctant to release names and instead offered to contact their members for volunteers. Hence, we cannot report actual response rates.

We created a series of scenarios of hypothetical patients in which we randomly varied several components. The specific components are shown in Table 1. We systematically varied four attributes (difficulties with activities of daily living, presence of behavioral problems, extent of cognitive problems, and presence of incontinence). For each combination of these attributes, we used a version of each of the attributes shown in the second column (labeled "Single Elements Used Separately"). We asked the respondent to distribute 100 points across the types of long-term care that could best be used to treat a base case with a variant composed of the variables in the first column and a set of conditions based on the variables in the second column. We then asked the respondent to repeat the task while individually changing each of the variables in the first column, one at a time. However, we did not test all combi-

Scenario #2

| | | |
|---|----------------------|----------|
| The reason for seeking assistance: | ADL/IADL problems: | Moderate |
| | Cognition problems: | Low |
| | Behavioral problems: | No |
| | Incontinence: | No |

Characteristics of the person:

- | | |
|---|---|
| <ul style="list-style-type: none"> • <i>Entering LTC from the community</i> • <i>Currently living with spouse @ home</i> • <i>Doctor's prognosis: survive >6 months</i> • <i>No depression</i> • <i>No history of falls</i> | <ul style="list-style-type: none"> • <i>History of light use of health service</i> • <i>Savings > than 6 months NH care</i> • <i>Family willing to help</i> • <i>Has friends in the community</i> • <i>Personal autonomy unimportant to her</i> |
|---|---|

Directions: Out of a total of 100 points for each row, allocate the number of points to the service types you believe would best suit the particular situation. In each subsequent row, one characteristic of the person is changed. To show how this modification changes the type of service you would recommend, reallocate the 100 points under each characteristic.

| Modifiers | SNF: General | SNF: Rehabilitation | SNF: Cognitive | Assisted Living: General | Assisted Living: ADL Management | Assisted Living: Cognitive | Foster Home | Day Care | Home: Formal Care | Home: Informal Care | Home: Health Care | Hospice Care | Total |
|--------------------------------|--------------|---------------------|----------------|--------------------------|---------------------------------|----------------------------|-------------|----------|-------------------|---------------------|-------------------|--------------|-------|
| Initial Patient Case | | | | | | | | | | | | | 100 |
| Living alone @ home | | | | | | | | | | | | | 100 |
| Prognosis: survive <6 months | | | | | | | | | | | | | 100 |
| Depression | | | | | | | | | | | | | 100 |
| History of falls | | | | | | | | | | | | | 100 |
| Heavy use of health service | | | | | | | | | | | | | 100 |
| Medicaid eligible | | | | | | | | | | | | | 100 |
| Medicaid covered | | | | | | | | | | | | | 100 |
| Savings for < 6 months NH care | | | | | | | | | | | | | 100 |
| No family assistance | | | | | | | | | | | | | 100 |
| No friends in community | | | | | | | | | | | | | 100 |
| Personal autonomy important | | | | | | | | | | | | | 100 |
| | | | | | | | | | | | | | 100 |

Figure 1. Example of a Scenario as Presented to Raters.

nations of the variables in the second column. We designed the scenarios in order to generate every combination of the elements in the first column (except for three combinations, which we had judged to be meaningless) and combine them with a variant of each element in the second column. In all, some 429 different combinations were possible. An example of a set of scenarios appears in Figure 1. The material in the shaded area at the top was fixed for

that set of scenarios but could also be randomly varied across sets of scenarios. Each of the elements in italics was systematically varied one at a time to create the individual scenarios.

We randomly selected five sets of scenarios, put them on a computer disc, and mailed them to each respondent. We used the same disc as the respondent data entry device. Along with the disc, the respondents received a detailed instruction letter explaining

Table 2. Service Options

| Option | Definition |
|---|---|
| Institutional options | |
| General SNF ^a | Provides continuous nursing and other health-related, psychosocial, and personal services to patients who are not in an acute phase of illness but who require primarily continued care on an inpatient basis. |
| Cognitive SNF ^a | Provides continuous nursing and other health-related, psychosocial, and personal services to patients with dementia-related illness who require continued care on an inpatient basis. |
| Rehabilitative SNF ^b | 30-day admission or less to a facility licensed with an organized professional staff and inpatient beds for rehabilitative care (such as complex wound care and post-surgical recovery) that can be performed only by, or under the supervision of, licensed and skilled medical personnel. |
| Rehabilitation unit ^b | Admission to a formal rehabilitation unit certified by Medicare; care here would be delivered under the direction of a rehabilitation physician and would require that the patient be able to tolerate at least three hours a day of physical, occupational, or speech therapy |
| Assisted living ^c | Senior apartment housing with services, including meals, housekeeping, transportation, and laundry. |
| Assisted living ADL management ^c | Housing with services (including meals, housekeeping, transportation, laundry) as well as assistance with personal care, such as walking, getting out of bed, bathing, toileting, dressing, and bathing. |
| Cognitive assisted living ^c | Senior apartment housing with services (including meals, housekeeping, transportation, laundry) as well as supervision and medication management. |
| Community options | |
| Adult foster care | The provision of food, lodging, protection, supervision, and household services to a functionally impaired adult in a residence with five or fewer older adults. |
| Home health care | In-home personal and medical care (including meals, getting out of bed, bathing, toileting, and dressing,) in addition to medical care delivered by licensed nursing staff. |
| Formal home care | In-home personal care assistance, including meals, getting out of bed, bathing, toileting, and dressing. |
| Hospice | End-of-life supportive and palliative services, provided primarily at home. |
| Day care | A community-based program offering structured activities and meals during daytime hours. |
| Informal care | In-home assistance coordinated and delivered by a family member or friend. Services could include meals, getting out of bed, bathing, toileting, and dressing. |

Note: SNF = skilled nursing facility; ADL = activities of daily living.

^aCombined into a single group (SNF) for analysis.

^bCombined into a single group (Rehabilitation) for analysis.

^cCombined into a single group (Assisted living) for analysis.

the structure of the survey and the directions for its completion. The letter also included definitions of long-term-care services that were to be used as placement options. The definitions used are shown in Table 2. Each respondent received a random subset consisting of five possible combinations of activities of daily living problems, behavioral problems, cognitive problems, and incontinence (labeled “The reason for seeking assistance”). Each such combination, combined with additional elements from the second column of Table 1, was associated with 13 modifiers (labeled “Characteristics of the person”) to create the individual scenarios. We varied these modifiers systematically, one at a time. Most modifiers had only two options, but a few had three. Thus, a rater rated all 13 scenarios that comprised a set. Each rater did five sets of scenarios, for a total of 65 ratings per rater.

For each individual scenario, we asked the rater to distribute 100 points across the 13 types of services shown in Table 2. Specifically, for each scenario, we instructed the respondents, “Out of a total of 100 points for each row, allocate the number of points to

the service types you believe would best suit the particular situation.” Reviewers were to answer as though all services were available to the person in their community. In order to simplify the rating process, the reviewer saw only one scenario at a time. The intent was to get each respondent to indicate how strongly he or she felt a given type of long-term-care service was appropriate for each variation of the hypothetical client. We did not specify or request any specific information about the intensity or frequency of any service; the emphasis was on the type of service proposed. Subsequently, we reduced the 13 services to 9 by combining three types of assisted living into one, two types of skilled nursing-facility care into one, and rehabilitation in skilled nursing facilities and in rehabilitation facilities into one category.

Classification of Respondents

As part of the package sent to them, we asked respondents to self-identify their discipline and the

sector in which they worked. Although many could have undoubtedly listed several in each category, we asked for the dominant one of each. The discipline variable originally included 13 options, in addition to the write-in Other category: advanced practice nurse, gerontology, health administration, geriatric medicine, general internal medicine, family practice medicine, occupational therapy, physical therapy, psychology, psychiatry, public health, registered nurse, and social work. Because of the small number of respondents selecting some of the categories, we combined them into fewer disciplines: advanced practice nurse, gerontology, health administration, geriatric medicine, primary care, registered nurse, social work, and other. The health care sector initially consisted of six categories: assisted living, home care personal services, home health care, hospice, skilled nursing facility, and a write-in Other category. We another category (hospital) based on the write-in responses. Because only 2 raters identified themselves as belonging to the assisted living sector, we combined that category with the Other category. Each respondent also provided some basic demographic data (years of experience and age). Table 3 shows the distribution of sector, discipline, and demographic data.

Analysis

We used SPSS version 11.5 (SPSS, Chicago, IL) to perform general linear models in order to explore the effect of respondent characteristics on recommended long-term-care placements. The unit of analysis was an individual scenario; the total sample size was thus the total number of individual scenarios rated by all of the respondents ($N = 12,728$). Although not all respondents assessed every scenario variant, this statistical method and design enabled us to control for the variations in patient characteristics and draw statistically valid conclusions about the effect of respondent characteristics on recommended placement. Because we could only examine the respondent characteristics in one model at a time, we had to fit that model with each respondent characteristic to each of the possible placements. For example, we fit five models for rehabilitation placement as a dependent variable: (a) a model with the full description of the patient plus the respondents' discipline, (b) a model with the full description of the patient plus the respondents' sector, (c) a model with respondents' age, (d) a model with respondents' years of experience, and (e) a model with respondents' gender. In all, we fit 45 models (5 models \times 9 placements). We analyzed the five independent variables separately instead of simultaneously, because a model that included all five should have also contained their interactions, but too many of the resulting interaction cells would have either been empty or contained only one or two respondents. From these

Table 3. Description of Expert Raters

| Variable | <i>n</i> |
|-----------------------------|----------|
| Discipline | |
| Advance practice nurse | 23 |
| Registered nurse | 21 |
| Geriatric medicine | 40 |
| Primary care | 23 |
| Gerontology | 12 |
| Health administration | 15 |
| Social work | 46 |
| Other | 16 |
| Sector | |
| Home care/personal services | 14 |
| Home health care | 36 |
| Hospice | 13 |
| Hospital | 10 |
| Skilled nursing facility | 58 |
| Other | 65 |
| Years of experience | |
| 5–10 | 28 |
| 11–15 | 20 |
| 16–20 | 49 |
| 21–25 | 56 |
| 26 or more | 43 |
| Age | |
| 18–45 | 35 |
| 46–54 | 112 |
| 55–75 | 49 |
| Gender | |
| Male | 80 |
| Female | 116 |

45 models, we derived coefficients for each category of the respondent characteristic being analyzed.

Results

Of the 304 individuals originally contacted or who indicated a willingness to participate, 211 returned their scenario discs. Because 15 of these were incomplete, we retained 196 discs (64%) for analysis. Table 3 shows the distribution of disciplines and work situations represented. There is broad coverage of both areas.

On average, the raters used the full spectrum of options. Institutional options (nursing homes and rehabilitation) received about half the points. On average, the raters assigned rehabilitation 2.8 points, skilled nursing facilities 35.3 points, assisted living 11.6 points, adult foster care 1.7 points, day care 6.9 points, formal home care 15.3 points, informal care 15.3 points, home health care 7.1 points, and hospice 4.0 points. Table 4 shows the relationship between characteristics of the professional raters and their recommendations. The unit of analysis in the table is the individual scenario rated, and the *n* values are the total number of scenarios rated in that category. We have shown the analyses in terms of regression

Table 4. Variation in Expert Recommendations for Long-Term-Care Services

| Variable | Rehabilitation | Skilled Nursing Facility | Assisted Living | Adult Foster Care | Day Care | Homemaking | Informal Care | Home Health Care | Hospice |
|---|----------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Discipline | | | | | | | | | |
| Advanced practice nurse (<i>n</i> = 1,492) | -4.92 (0.53) <i>p</i> = .000* | 9.69 (1.50) <i>p</i> = .000 | -7.29 (1.02) <i>p</i> = .000 | 0.17 (0.38) <i>p</i> = .660 | 0.32 (0.59) <i>p</i> = .594 | 2.40 (0.83) <i>p</i> = .004 | -2.51 (0.77) <i>p</i> = .001 | 1.13 (0.61) <i>p</i> = .066 | 1.02 (0.41) <i>p</i> = .014 |
| Gerontology (<i>n</i> = 780) | -6.04 (0.62) <i>p</i> = .000 | 24.74 (1.77) <i>p</i> = .000 | -8.81 (1.20) <i>p</i> = .000 | 2.15 (0.44) <i>p</i> = .000 | -5.07 (0.70) <i>p</i> = .000 | -3.24 (0.97) <i>p</i> = .001 | -3.44 (0.91) <i>p</i> = .000 | -0.83 (0.72) <i>p</i> = .248 | 0.55 (0.49) <i>p</i> = .257 |
| Health administration (<i>n</i> = 975) | -5.91 (0.58) <i>p</i> = .000 | 8.20 (1.66) <i>p</i> = .000 | -4.05 (1.13) <i>p</i> = .000 | 0.12 (0.42) <i>p</i> = .781 | -2.77 (0.66) <i>p</i> = .000 | 0.22 (0.92) <i>p</i> = .810 | 0.46 (0.86) <i>p</i> = .593 | 1.75 (0.68) <i>p</i> = .010 | 1.98 (0.46) <i>p</i> = .000 |
| Medicine, geriatrics (<i>n</i> = 2,599) | -3.76 (0.48) <i>p</i> = .000 | 22.85 (1.37) <i>p</i> = .000 | -8.39 (0.93) <i>p</i> = .000 | 1.46 (0.34) <i>p</i> = .000 | -2.88 (0.54) <i>p</i> = .000 | -2.79 (0.75) <i>p</i> = .000 | -6.07 (0.70) <i>p</i> = .000 | -0.44 (0.56) <i>p</i> = .430 | 0.03 (0.38) <i>p</i> = .926 |
| Primary care (<i>n</i> = 1,494) | -3.75 (0.53) <i>p</i> = .000 | 27.16 (1.51) <i>p</i> = .000 | -9.35 (1.03) <i>p</i> = .000 | 0.25 (0.38) <i>p</i> = .506 | -6.77 (0.60) <i>p</i> = .000 | -2.13 (0.83) <i>p</i> = .010 | -5.85 (0.77) <i>p</i> = .000 | 0.12 (0.62) <i>p</i> = .842 | 0.31 (0.41) <i>p</i> = .453 |
| Registered nurse (<i>n</i> = 1,363) | -4.73 (0.53) <i>p</i> = .000 | -1.95 (1.53) <i>p</i> = .201 | -1.91 (1.04) <i>p</i> = .066 | 3.53 (0.38) <i>p</i> = .000 | -3.67 (0.60) <i>p</i> = .000 | 2.31 (0.84) <i>p</i> = .006 | -0.02 (0.78) <i>p</i> = .981 | 5.11 (0.62) <i>p</i> = .000 | 1.32 (0.42) <i>p</i> = .002 |
| Social work (<i>n</i> = 2987) | -5.96 (0.47) <i>p</i> = .000 | 14.92 (1.35) <i>p</i> = .000 | -7.51 (0.92) <i>p</i> = .000 | -0.42 (0.34) <i>p</i> = .214 | -3.11 (0.53) <i>p</i> = .000 | 1.55 (0.74) <i>p</i> = .037 | -0.58 (0.69) <i>p</i> = .404 | 1.04 (0.55) <i>p</i> = .058 | 0.06 (0.37) <i>p</i> = .863 |
| Other (<i>n</i> = 1,038) | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference |
| Sector | | | | | | | | | |
| Home care/personal services (<i>n</i> = 909) | -0.17 (0.48) <i>p</i> = .722 | 4.32 (1.39) <i>p</i> = .002 | -2.56 (0.93) <i>p</i> = .006 | 0.43 (0.35) <i>p</i> = .210 | -5.02 (0.54) <i>p</i> = .000 | -0.43 (0.76) <i>p</i> = .567 | 0.49 (0.71) <i>p</i> = .492 | 3.09 (0.56) <i>p</i> = .000 | -0.14 (0.38) <i>p</i> = .709 |
| Home health care (<i>n</i> = 2,340) | -0.98 (0.34) <i>p</i> = .004 | 12.75 (0.98) <i>p</i> = .000 | -7.40 (0.65) <i>p</i> = .000 | -0.76 (0.24) <i>p</i> = .002 | -5.14 (0.38) <i>p</i> = .000 | -1.16 (0.53) <i>p</i> = .028 | 0.94 (0.50) <i>p</i> = .058 | 1.46 (0.39) <i>p</i> = .000 | 0.29 (0.26) <i>p</i> = .280 |
| Hospice (<i>n</i> = 845) | 0.19 (0.49) <i>p</i> = .695 | -0.94 (1.43) <i>p</i> = .512 | 4.57 (0.95) <i>p</i> = .000 | -1.43 (0.35) <i>p</i> = .000 | -3.93 (0.55) <i>p</i> = .000 | -4.20 (0.77) <i>p</i> = .000 | 0.30 (0.72) <i>p</i> = .677 | 2.30 (0.58) <i>p</i> = .000 | 3.12 (0.39) <i>p</i> = .000 |
| Skilled nursing facility (<i>n</i> = 3,768) | 2.00 (0.29) <i>p</i> = .000 | 12.90 (0.84) <i>p</i> = .000 | -3.99 (0.56) <i>p</i> = .000 | -0.36 (0.21) <i>p</i> = .088 | -4.57 (0.33) <i>p</i> = .000 | -2.88 (0.46) <i>p</i> = .000 | -3.82 (0.43) <i>p</i> = .000 | 0.74 (0.34) <i>p</i> = .030 | -0.02 (0.23) <i>p</i> = .916 |
| Hospital (<i>n</i> = 650) | -0.39 (0.55) <i>p</i> = .475 | 18.83 (1.59) <i>p</i> = .000 | -5.76 (1.06) <i>p</i> = .000 | 0.83 (0.40) <i>p</i> = .037 | -7.93 (0.62) <i>p</i> = .000 | -2.25 (0.86) <i>p</i> = .009 | -4.34 (0.81) <i>p</i> = .000 | 1.13 (0.64) <i>p</i> = .079 | -0.11 (0.43) <i>p</i> = .793 |
| Other (<i>n</i> = 4,216) | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference |
| Years of Experience | | | | | | | | | |
| 5–10 years (<i>n</i> = 1,818) | 0.73 (0.39) <i>p</i> = .062 | -13.92 (1.14) <i>p</i> = .000 | 6.80 (0.76) <i>p</i> = .000 | -0.57 (0.28) <i>p</i> = .045 | 3.86 (0.44) <i>p</i> = .000 | 2.41 (0.62) <i>p</i> = .000 | -2.27 (0.58) <i>p</i> = .000 | 2.66 (0.46) <i>p</i> = .000 | 0.30 (0.31) <i>p</i> = .334 |
| 11–15 years (<i>n</i> = 1,297) | 2.60 (0.44) <i>p</i> = .000 | -5.76 (1.27) <i>p</i> = .000 | 4.73 (0.85) <i>p</i> = .000 | 1.23 (0.32) <i>p</i> = .000 | 3.48 (0.50) <i>p</i> = .000 | -3.30 (0.69) <i>p</i> = .000 | -6.15 (0.65) <i>p</i> = .000 | 2.57 (0.51) <i>p</i> = .000 | 0.60 (0.34) <i>p</i> = .082 |
| 16–20 years (<i>n</i> = 3,182) | 1.01 (0.34) <i>p</i> = .003 | 5.40 (0.98) <i>p</i> = .000 | -2.73 (0.65) <i>p</i> = .000 | -0.08 (0.24) <i>p</i> = .743 | 1.13 (0.38) <i>p</i> = .003 | -1.00 (0.53) <i>p</i> = .058 | -4.46 (0.50) <i>p</i> = .000 | -0.35 (0.39) <i>p</i> = .373 | 1.10 (0.26) <i>p</i> = .000 |
| 21–25 years (<i>n</i> = 3,639) | -0.45 (0.33) <i>p</i> = .168 | 2.96 (0.95) <i>p</i> = .002 | -3.12 (0.63) <i>p</i> = .000 | -0.53 (0.24) <i>p</i> = .025 | 0.40 (0.37) <i>p</i> = .278 | 1.94 (0.51) <i>p</i> = .000 | -0.68 (0.48) <i>p</i> = .159 | -0.48 (0.38) <i>p</i> = .209 | -0.04 (0.26) <i>p</i> = .879 |
| 26 years or more (<i>n</i> = 2,792) | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference | Reference |

Notes: The *ns* shown here represent the number of scenarios evaluated by raters with that professional characteristic. Data are displayed as regression coefficient (*SE*) and *p* value.

coefficients, showing the individual statistical significance of each cell. The overall analyses of each long-term-care modality was significant at $p < .0001$. For the analysis by discipline, we used Other as the reference group, but the statistical results and implications will not change if one uses a different category as reference. Where $p < .05$, there was a statistically significant difference between the reference category and the category in question in the number of points allocated to the long-term-care option in question. Compared to Other, all disciplines were negative about rehabilitation and assisted living, but all except nursing were positive about skilled nursing facilities. Gerontologists, those in geriatric medicine, and registered nurses were positive about adult foster care, but the rest of the disciplines did not differ significantly from Other. All disciplines except advanced practice nurses were comparatively negative about day care. The enthusiasm for social home care was more mixed. Nurses and social workers favored it, whereas physicians and gerontologists did not. Advanced practice nurses, gerontologists, and those in geriatric medicine and primary care did not favor informal care compared to the other disciplines. Nurses, health administrators, and social workers supported home health care more than did other groups. Nurses and health administrators favored hospice more than the other respondents, but the other disciplines did not differ significantly from the reference group.

After balancing the distribution of patient characteristics in the mixed sample, we found that advanced practice nurses tended to recommend day care and homemaking more often and adult foster care less often than did representatives of other disciplines. Their decisions were close to average with respect to all other allocations of patients. Gerontologists tended to use skilled nursing-facility placement more actively and rehabilitation, homemaking, and home health care less actively than did the representatives of most other disciplines. Health administrators were less enthusiastic than the other respondents about rehabilitation and adult foster care but favored informal care more than the other respondents. Geriatricians and primary care physicians both favored rehabilitation and skilled nursing-facility care; both were less enthusiastic about assisted living, homemaking, and informal care than the other respondents; and the primary care physicians favored day care less than did the geriatricians. Registered nurses were highly supportive of assisted living, adult foster care, homemaking, and home health care, and opposed skilled nursing-facility care. Social workers were less likely than the other respondents to endorse rehabilitation and adult foster care.

In general, professionals tend to favor their sector. Home care professionals supported homemaking and home health care. Home health staff was

unenthusiastic about rehabilitation and assisted living and supported informal care. Hospital workers and skilled nursing-facility-based professionals were the only groups not to favor informal care. Hospice staff actively supported assisted living and day care but opposed skilled nursing-facility care, adult foster care, and homemaking. Skilled nursing-facility workers supported facility care and showed little enthusiasm compared to other sectors about home health care. Hospital-based professionals endorsed skilled nursing-facility care and adult foster care and opposed day care and informal care. Everyone was less enthusiastic than the reference group about homemaking. In general, individuals with more experience tended to be less enthusiastic about assisted living, adult foster care, and informal care.

Discussion

These results suggest that experts differ systematically in their recommendations for what constitutes appropriate long-term care. The design does not test the correctness of these opinions. The purpose of this study was not to suggest that professional recommendations should trump client preferences, but to recognize that client preferences are best expressed when they consider a wide variety of options. Clients will need information. Sometimes they will request specific information, but, given the circumstances surrounding long-term-care decision making, they will often solicit (or receive) recommendations and suggestions. Given the dearth of empirical data, information is likely to come from professionals with experience in long-term care. The question, then, is does the professional's background matter? This study suggests that it does.

In aggregate, each of the overall models was highly significant in responding to hypothetical client characteristics. The question, then, is how expert opinion is formed by those making difficult decisions about long-term-care alternatives.

The relatively strong support for institutional care, despite consumer enthusiasm for community care, suggests that many professionals in the field still believe that a substantial proportion of individuals who need long-term care should get that care in a nursing home. Older adults seem to favor assisted living over nursing homes (Bishop, 1999) and generally dislike nursing home care (Henry J. Kaiser Family Foundation, 2005). There were some notable differences among the respondents. The disinclination among all the professionals for using rehabilitation may reflect a belief that its use is limited to only a few conditions that require this type of post-acute care. It may suggest a belief that rehabilitation is not warranted for older adults, although there are data to suggest that this is not the case (R.L. Kane et al., 2000). It may reflect differences in

education about rehabilitation (Becker & Kaufman, 1988; Kaplan & Ford, 1975). The weak support for home health care may also reflect a belief that post-acute care modalities be reserved for a limited set of problems. However, the similar lack of enthusiasm for assisted living among respondents from many disciplines and sectors suggests concerns at the other end of the care spectrum as well. Only registered nurses were more reluctant than the reference group Other to recommend nursing homes, and that difference was not significant. Registered nurses' position on assisted living was likewise not significantly different from that of the reference group.

The consistent lack of enthusiasm for informal care is surprising in light of all the attention being given to promoting home- and community-based care (Alecxih, Lutzky, Corea, & Coleman, 1996; Kitchener, Ng, Miller, & Harrington, 2005; Weisert, Cready, & Pawelak, 1989). In contrast, there was universal support for hospice care. Perhaps for professionals (as opposed to consumers), community care is more attractive in the abstract than for individual cases.

The respondents generally strongly supported care in their own sectors and were reluctant to venture outside their spheres of familiarity. Home care personnel were the most enthusiastic for home health care, although home health care personnel were somewhat more restrained than the other respondents; they were most enthusiastic about skilled nursing facilities. Hospice workers were most likely to recommend hospice care and skilled nursing-facility providers to recommend skilled nursing-facility care. Hospital discharge planners were also most likely to recommend skilled nursing facilities.

Despite the enthusiastic reactions of many to assisted living, only hospice providers actively supported this modality, which offers a less regulated, more flexible service akin to hospice care. The effects of experience were not great, but individuals with less experience tended overall to be somewhat more supportive of some of the long-term-care options than were their more experienced counterparts.

One might ask what makes a professional knowledgeable. In general, lay consumers of long-term care rely on a presumption that people working in the field, or even studying it, have some knowledge of the field and can provide useful advice. Little is known about how many years of practice or education are required to establish an individual as knowledgeable, or just what sort of training is required. Indeed, given the lack of strong empirical data about the relative effectiveness of alternative methods of care, there is no gold standard against which to even test this question. Instead researchers are left with the observation of variability, but variability that appears to reflect some patterns

based on experience and training. However, it is safe to say that at present professional curricula pay little attention to this topic. Moreover, such training would probably not be very productive until there is a stronger empirical base. Perhaps professionals might be more circumspect in their recommendations, although many consumers look to them for guidance.

This study has some important limitations. It relies on a convenience sample, from which generalizations should be made cautiously. The design did not permit total variation of all potential combinations among all the variables; specifically, it did not allow for combinations of the 13 variables in the second column of Table 1. Comparing all pairs would have required many more respondents or a much heavier burden on the respondents who did participate. However, because the respondent characteristics analysis held the patient characteristics constant by statistically adjusting for them, this limitation should not affect the results of the analysis. Likewise, the analysis did not simultaneously examine the effects of discipline and sector and experience. With the number of categories in these variables, it would have been extremely difficult to interpret them simultaneously. We asked respondents to self-identify and to choose their principal identifications; we did not allow multiple self-identifications, although many respondents likely covered more than one area. We did not ask respondents to self-identify as working in an academic or practice setting.

Nonetheless, the study results suggest that the opinions of care professionals vary with the orientation of that professional. This variation undoubtedly reflects differences in experience and training. It may be a strong argument for more interdisciplinary teamwork, but such collaboration needs to be efficient and expeditious. Interpreting judgments based on such opinions should be done within that context. In essence, the person you ask may affect the answers you receive.

We collected these data as part of a larger computerized project to create a better long-term-care decision-making process. Their intention is to support—not supplant—consumer preferences. It would be feasible to allow the individuals seeking guidance to indicate on whose judgments (i.e., on which disciplines) they most want to rely.

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