The following full text is a publisher's version.

For additional information about this publication click this link.
http://hdl.handle.net/2066/24688

Please be advised that this information was generated on 2019-11-17 and may be subject to change.
This study investigates which care provider an elderly person living independently and aged 65 and older would prefer most should he or she be in need of such care. Four (hypothetical) care-need situations were distinguished, and respondents were requested to state their preference in each situation. In addition, the influence on these preferences of both individual and social characteristics of the elders and their previous experience with care was examined. A preference for informal care declines when the expected duration of care is extended and/or the person requires personal care. Previous experience with either formal or informal care increased the likelihood that that type of care would be preferred. Other predictive factors were age, gender, socioeconomic status, and the level of well-being. More research on the preferences of the older persons would enable health care professionals and government to adjust their policies to accommodate the wishes of the elders.

During the past two decades, health care professionals have been increasingly involved in planning the future supply of services for the

AUTHORS'NOTE: The research reported is part of the Groningen Longitudinal Aging Study (GLAS). GLAS is conducted by the Northern Centre for Health and Health Care Research (NCG) and various departments of the University of Groningen (RUG). The primary departments involved are Health Sciences (Prof.dr. W.J.A. van den Heuvel), Family Medicine (Prof.dr. B. Meyboom-de Jong), Psychiatry (Prof.dr. R. Giel), Sociology (ICS) (Prof.dr. S. M. Lindenberg), and Human Movement Sciences (Prof.dr. P. Rispens). Director of GLAS is Prof.dr J. Ormel (Health Sciences and Psychiatry). GLAS and its substudies are financially supported by the government (through NESTOR), the University of Groningen, the School of Medicine, the Dutch Cancer Foundation (NKB/KWF), and the Dutch Organization for Scientific Research (NWO). The central office of GLAS is located at the NCG, Antonius Deusinglaan 1, 9713 AV Groningen, the Netherlands, telephone +31-50-633065.
elders. This phenomenon is based on two premises: (1) to establish an equilibrium between demand and supply and (2) to deliver high-quality care. Until now, most research in this field has focused on the determinants influencing the use of services to predict future requirements and developments. Earlier studies began with an examination of the factors related to the use of long-term institutional care (Branch and Jette 1982; Deimling and Poulishock 1985; Greenberg and Ginn 1979). Thereafter, many researchers have explored the determinants of the use of community care. Some focused on formal services (Logan and Spitze 1994; Soldo 1985; Wister 1992), whereas others emphasized informal care (Lee, Dwyer, and Coward 1993). The use of the results of these studies for the planning of future services is based on the concept of revealed preferences; the actual use of services is supposed to represent the preferences of the users. Research on the actual preferences of the elderly for various care arrangements is scarce (Brennan, Moos, and Lemke 1989; Brown, Davey, and Halladay 1986; Eustis, Kane, and Fischer 1993; Soldo, Wolf, and Agree 1990). The research reported here focuses on the preferences for care arrangements in various hypothetical need situations (differing in type and duration of care). The target group consisted of persons aged 65 and older who lived independently.

The rationale for selecting various care-need situations is that research has suggested that the care preferences of the elders depend largely on the type of care required and the expected duration of that care (Brody, Johnsen, and Fulcomer 1984; Daatland 1990; McAuley and Blieszner 1985). Whereas most elderly people would rather see their children do the daily chores such as housework, shopping, or cooking, they favored assistance arranged by their insurance company in case they would require personal care (Brody et al. 1984). European research has indicated that the preference for assistance from children decreased when the care is needed for a longer period of time or becomes personal care (Daatland 1990).

Until now, research on the selection of preferred care arrangements has mainly focused on the elders as a homogeneous group. Thus, little attention has been given to typical features of the older persons that influence their preferences. Studies that have focused on the determinants of preference have shown individual and social characteristics, as well as experience indicators, to be associated with the selection of
various care arrangements (Brody et al. 1984; McAuley and Bl 1985). The conceptual model described below illuminates the
relationships in more detail.

Important aspects of the individual's decisions about care availability and the accessibility of the care services (Johansson Thorslund 1992; Logan and Spitze 1994). The availability of a service is the extent to which it is offered, whereas accessibility is the extent to which it is available, making use of a service possible. It is within the context of these aspects that the elders determine the best care preferences. Because this report presents the selection of care arrangements of the elders in the Netherlands, we will begin by outlining the availability and accessibility of care services for these older persons in this country.

SUPPLY OF SERVICES TO THE ELDERS

As in most other countries, the care of the older persons in the Netherlands is largely informal and is provided by children, relatives, friends, and others. Forty-four percent of those aged 65 and older having a moderate degree of disability (two or more activities of daily living [ADL] or instrumental activity of daily living [IADL] disabilities) receive only informal care (Timmermans 1993). A further 20% to 25% receive both informal and formal services (Huijsman and De Klerk 1993). The informal care is mainly provided in the home, and in some (exceptional) cases, the elders move in with their relatives.

When an older person is actually in need of care, which is assessed by an independent committee, elders may opt for the care of public service providers. These provisions are run without exceptions by private not-for-profit organizations, which depend heavily on government subsidies (De Klerk, Huijsman, and Rutten 1995). These organizations deliver assistance in household and personal care in the homes of a growing number of elders. At present time, 30% of the elders aged 75 and older with two or more ADL or IADL disabilities receive home help and/or home care in combination with informal care (Timmermans 1993). Although home care organizations have waiting lists because of short funding, these services are readily available to all elderly cit...
These public services are highly subsidized, with recipients paying a contribution according to their means.

A third, and expanding, type of home care is that offered by the private sector. These services, for which the recipient must pay the full cost, generally comprise only housekeeping assistance. About 20% of the disabled elders receive these private services (Timmermans 1993). Until now, private services have not been well organized, leaving older persons or network members having to arrange these services themselves.

Residential care and nursing home care are the institutional types of care provided for the older persons. Their accessibility is dependent on the level of disability and is determined by an independent committee. Both of these types of care are publicly financed, but a different system of cost sharing is employed for each type.

To bring future policy on the care of the older persons in line with their preferences, it is necessary to gain an insight into the preferences for the various care arrangements. A better adaptation to the wishes of the older persons may be achieved by identifying typical features that influence their preferences. In the present study, the preferences of the noninstitutionalized older persons aged 65 and older are investigated. Then, the effects of a wide variety of influencing factors on these preferences are discussed. Before the results of our research are presented, a conceptual model of the development of preferences for particular care arrangements, and the factors that influence them, will first be described.

A CONCEPTUAL MODEL

On the basis of a consumer behavior model (Engel, Blackwell, and Miniard 1986), a conceptual model is proposed that describes not only the consecutive steps of preference development but also the influence of individual and social characteristics and previous experience with receiving care on this development.

THE NEED FOR CARE

At a certain point, many elders experience difficulties with performing daily activities because of infirmities attendant with old age;
a need for care arises. To what extent older persons need such care is the starting point of the development of care preferences (see Figure 1). For example, the need for short-term housekeeping assistance may generate other preferences than those associated with the need for long-term personal care (Daatland 1990).

SEEKING ALTERNATIVES

When the older persons recognize the need for care, they begin to seek a solution to their problem. Various types of "seeking" can be distinguished. The internal search is based on the ready knowledge of the elders. Others may perform an external search, which consists of gathering information from external sources such as other persons or organizations. Significant others (i.e., network members) often stimulate the elders to acquaint themselves with, for example, institutional care (Allen, Hogg, and Peace 1992; Pratt et al. 1989).

Recognizing that information is a principal antecedent factor affecting the use of services, researchers studied service awareness (Allen et al. 1992; Krout 1983, 1988; Wister 1992). Not surprisingly, research findings on the degree of knowledge of services varied considerably from study to study and from service to service (Krout
1983). Research among the elders living independently in the Netherlands showed that most are familiar with the regular types of care services (De Klerk and Huijsman 1989; Van Dinter and Witteveen 1991), whereas a very small group would have liked to have (extra) information on specific services.

The result of the search for alternatives is a set of possible care services that the elders may consider as a potential solution to their problem. The composition of this set is individually determined and is directly related to the need for care.

**EVALUATION OF THE ALTERNATIVES**

Thereafter, the elders evaluate the various alternatives; the advantages and disadvantages are compared. On the basis of both expectations and value judgments on the alternatives, they determine their preference. A common procedure is to process information on one alternative at a time, weighing each against the most important aspects. This is done following a compensatory strategy in which a perceived weakness on one aspect can be compensated for, or offset by, a strength of others. The preference for a certain care service is the result of an evaluation of the alternatives.

**THE INFLUENCE OF NEED FOR CARE**

The conceptual model shows an indirect relationship between the older persons' need for care and their preferences. On one hand, the need for care is directly related to the set of alternatives from which the elders select their preferences. On the other hand, the need for care and the previous experiences with receiving care are related; a more disabled person will more often have experienced care from others because of the often chronic character of his or her disability.

**THE INFLUENCE OF EXPERIENCE WITH RECEIVING CARE**

The experience that the elders have previously gained through receiving formal or informal care is expected to influence the development of preferences. An evaluation of the alternatives will be colored by either positive or negative memories of a caregiver. Past
experience frames problems and affects decision-making in a highly individual way (Sims, Boland, and O’Neill 1992).

Dutch studies showed a relationship between receiving professional home care and an increased preference for professional home care (Kempen and Suurmeijer 1989). Previous experience with informal care was associated with an increased preference for this type of care (Brody et al. 1984).

THE INFLUENCE OF INDIVIDUAL AND SOCIAL CHARACTERISTICS

Research has shown that the need for informal and formal care is related to factors such as age, gender, marital status, and living conditions. Other characteristics, such as socioeconomic status, social and psychological well-being, or whether one has the support of children and other network members are particularly related to the need for formal or institutional care (Branch and Jette 1982; Huijsman and Wolfson 1993).

Ready knowledge of regular care services was found to be associated with the age of the elders; with increasing age, less ready knowledge was available (Van Dinter and Witteveen 1991). Informal support may also be associated with better channels of information as information often flows informally through family and friendship networks (Wister 1992).

Although the relationship between gaining either positive or negative experience with receiving care and individual characteristics of the elders has not been studied previously, a similar association is to be expected. This experience may depend on the quality of the relationship with the caregiver, as shown by research on (relational) aspects of the quality of care (Harteloh and Casparie 1991). Therefore, personality and socioeconomic status may affect the experience with caregivers.

The basic demographic characteristics of age, gender, and marital status were found significant predictors of the preferences of older persons for care (McAuley and Blieszner 1985; Wister 1985, 1989). Younger and married persons were more likely to express a preference for formal home care or residential care, whereas men preferred care from relatives (McAuley and Blieszner 1985). Unmarried persons do not have the advantage of spousal support (Wister 1989).
The status of an individual’s home might have a limiting effect on choice for a variety of reasons (Rubinstein, Kilbride, and Nagy 1992). The presence of stairs, doorways being too narrow for a wheelchair, or the absence of maintenance services can diminish the possibility of choice.

Income, and other socioeconomic characteristics, greatly influence decision-making on care (Rubinstein et al. 1992; Wister 1985). Michael, Fuchs, and Scott (1980) argued that the level of income is the major determinant of the propensity to live independently, which they view as “a reflection of an economic demand for privacy.” However, McAuley and Blieszner (1985) found that persons with a high socioeconomic status consider formal home care and residential care the most appropriate type of care arrangements.

Studies seeking to explain the elders’ use of services have shown that, in addition to physical disabilities, psychiatric problems can also play an important role in care decision-making (Bisscheroux and Frederiks 1986). Various operationalizations of mental/emotional disabilities have been used in research on care use: loneliness, the inability to make decisions, mental orientation, morale, satisfaction with certain aspects of life, depressive complaints, and mental status. However, so far, it has not been determined which of these factors is the most influential (Bisscheroux and Frederiks 1986; Branch and Jette 1982). From qualitative research among elderly Americans, Rubinstein et al. (1992) stated that anxiety and loneliness influence care decision-making. McAuley and Blieszner (1985) reported a positive relationship between emotional problems and the choice for paid in-home care. A final psychiatric factor that requires attention is the personality of the older persons. Although hardly ever mentioned in research, Wister (1992) assessed the influence of self-reliance on the future use of services and concluded that personality factors such as assertiveness or self-confidence might have a major influence on preference development.

The gerontological literature shows that considerable research has been conducted on the role of both physicians and family in decisions about various aspects of elderly care (Deimling, Smerglia, and Barresi 1990; Kapp 1991). Social characteristics affecting care decision-making concern the involvement of family, friends, health care professionals, and other network members in various ways. Pratt et al.
(1989) found that older persons receive significant amounts of advice from their adult children. Therefore, the absence or presence of an extensive network surrounding the elders will be an important factor influencing care decision-making. The interaction with the social environment is another factor that was found to impact on the choice process of older persons; receiving care from relatives was more likely to be selected by those persons who enjoyed more extensive social support (McAuley and Blieszner 1985).

The purpose of this study was to examine the preferences of the elders in four hypothetical care-need situations and to establish whether the experience with care services, or individual and social characteristics of the respondents, influence these preferences. In addition, the effect of discrepancies between the hypothetical and the actual need for care on the development of preferences will be examined. The use of multivariate analyses enables the identification of the factors most relevant to explaining and predicting the preferences for various care services.

Methodology

Data were gathered as part of a larger study on the effects of psychosocial factors on functional status and the use of supportive and institutional care (Ormel et al. 1991).

THE RESEARCH POPULATION

General practitioners (GPs) from 12 medical practices in the northern region of the Netherlands selected all patients who had attained the age of 65 on January 1, 1993. In 1993 and early 1994, these respondents (N = 5,834) were interviewed in their home. Of the elders approached, 2,359 declined participation. Fifty-six interviews were incomplete because of the cognitive impairments of the respondents. Another 218 older persons were only being briefly interviewed by telephone because of lack of research funds. After being interviewed, the respondents were handed out a questionnaire to be completed and returned to the researchers. One hundred forty-two elders did not respond. In addition, data on 68 respondents residing in a nursing
home were excluded as we were only interested in those living independently. Therefore, the analyses presented here are based on 2,991 older persons living independently.

The mean age of the study group was 74.1 years (range 65-94). A majority (58.8%) of the respondents was female. Most respondents (55.7%) lived with a partner, 7.5% (also) lived with others, and 36.8% lived alone.

A comparison between some basic characteristics of our research population and those found among the total Dutch population aged 65 and over showed an almost identical percentage of men. Respondents aged 70 to 79 were somewhat overrepresented in the research population when compared with all Dutch inhabitants (37.0% versus 33.9%). In contrast, respondents aged 80 to 89 were a little underrepresented among the participants (12.9% versus 17.0%).

**OPERATIONALIZATION OF VARIABLES**

*Need for care.* The need for care is defined by means of four hypothetical care-need situations: the need for short-term housekeeping assistance, long-term housekeeping assistance, short-term personal care, and long-term personal care. To establish a short period for which the respondents would seriously consider informal care, we set 4 weeks as the dividing line between short-term and long-term care.

*Alternatives.* The basic assumption was that Dutch elders are familiar with the regular care services (De Klerk and Huijsman 1989; Van Dinter and Witteveen 1991). The respondent could choose one of the following answers: home care by children, neighbors/friends/acquaintances, private services; or home help/home care, residential care, or co-residence with family.

*Preferences.* The respondents were asked to imagine themselves in the four hypothetical care-need situations and to state the most preferred person or organization from whom to receive care in each situation. In addition, respondents were told to ignore external hindrances such as financial or organizational considerations.

*Experience with care.* Registered were whether the respondents received informal care at the time of the interview (no information was available on the period before the interview) and whether the respondents were receiving care from formal services at the time of the
interview or during the previous year. We distinguished between assistance with housekeeping activities and personal care.

**Individual characteristics.** The following characteristics were assessed: age, gender, household composition, living situation, level of education, level of income, (former) occupational status (based on the Treimemp Index; Treiman, 1977), well-being (assessing physical and social well-being; e.g., loneliness and safety), mental health (based on the MOS short-form general health survey; e.g., dejection, somberness, and restlessness [Stewart, Hays, and Ware 1988]), feelings of depression and anxiety (based on the hospital anxiety and depression scale; e.g., ability to enjoy or rejoice, fear, restlessness, and panic [Zigmond and Snaith 1983]), and personality characteristics: neuroticism and extraversion (based on the Revised Eysenck Personality Questionnaire; liveliness, being a pacemaker and taking initiatives, worrying, remain in the background [Eysenck, Eysenck, and Barrett 1985]).

**Social characteristics.** The following characteristics were assessed: the size of the network of the respondents (based on the amount of [telephone] contacts with partner, children, other relatives, and others), social functioning (a SF-20 item on social interaction [Stewart et al. 1988]), and the extent of receiving social support (covering the domains of daily social interactions, problem support, and appreciation [Eijk, Kempen, and van Sonderen 1994]).

**Need for care.** To investigate the (indirect) influence of the need for care on the selection of care arrangements, actual need was assessed by the need for support with ADLs and IADLs (Kempen and Suurmeijer 1990).

**DATA ANALYSES**

Chi-square tests were used to examine the univariate relationships between the dependent and the independent variables. Both help from children, neighbors, friends, and acquaintances and the help received from private services and home help/care were grouped to constitute informal and formal care, respectively. Backward stepwise logistic regression analysis for polytomous dependent variables (having more than two categories) was used to explore which of the independent variables explain and predict the preferences of the elders.
During the uni- and multivariate analyses, all the independent variables were dichotomized, except for age during the multivariate analyses. The operational definitions of these variables are given in Table 1. Information on the psychic individual characteristics and the social indicators is missing, however. Regarding these characteristics, respondents were requested to answer a series of questions relating to each variable of which responses were scored. The sum of the scores for each variable was calculated and the study population was dichotomized by dividing it in two (almost) equal groups. In the analyses (uni- and multivariate), we only distinguished formal and informal home care and residential care; coresidence with family was not considered because of the small number of elders preferring this type of care.

Results

PREFERENCES

For short-term housekeeping assistance, 47.0% of the respondents preferred to receive help from their children; 26.5% chose the assistance of a home help; 19.1% were in favor of private services; and 7.5% of the respondents preferred to be assisted by neighbors, friends, or acquaintances (Table 2).

In case housekeeping assistance is needed for a longer period, the percentage of elders choosing their children declined (36.8%), whereas the percentage opting for home help services increased (56.4%). The remaining respondents would prefer residential care in this situation (6.4%). Only a very small percentage (0.5%) would prefer to live in with a family member.

Most respondents would prefer personal care from home care services for both short-term care (64.1%) and long-term care (63.4%). The percentage of elders preferring assistance from children was considerably smaller; 32.9% for short-term care and only 27.6% for long-term care. In case of long-term personal care, 8.6% of the respondents were in favor of residential care, and only 0.5% would choose to move in with a family member.
## TABLE 1

Operational Definitions of the Independent Variables ($n = 2,991$)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience with care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal care (housekeeping)</td>
<td>$1 =$ informal housekeeping care at the time of the interview</td>
<td>35.6</td>
</tr>
<tr>
<td>Informal care (personal care)</td>
<td>$1 =$ informal personal care at the time of the interview</td>
<td>11.5</td>
</tr>
<tr>
<td>Formal care (housekeeping)</td>
<td>$1 =$ formal housekeeping care at the time of the interview, or the previous year</td>
<td>12.2</td>
</tr>
<tr>
<td>Formal care (personal care)</td>
<td>$1 =$ formal personal care at the time of the interview, or the previous year</td>
<td>3.2</td>
</tr>
<tr>
<td>Individual characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>Continuous (multivariate analyses)</td>
<td>60.2</td>
</tr>
<tr>
<td></td>
<td>0 = 65-74 (univariate analyses)</td>
<td>39.8</td>
</tr>
<tr>
<td>Gender</td>
<td>$1 =$ female</td>
<td>58.8</td>
</tr>
<tr>
<td>Household composition</td>
<td>$0 =$ living alone</td>
<td>36.8</td>
</tr>
<tr>
<td></td>
<td>1 = living with partner</td>
<td>55.7</td>
</tr>
<tr>
<td></td>
<td>2 = living with other(s)</td>
<td>7.5</td>
</tr>
<tr>
<td>Housing</td>
<td>$0 =$ regular house</td>
<td>81.3</td>
</tr>
<tr>
<td></td>
<td>1 = adapted housing</td>
<td>18.7</td>
</tr>
<tr>
<td>Educational level</td>
<td>$0 =$ only primary education</td>
<td>42.4</td>
</tr>
<tr>
<td></td>
<td>1 = also advanced education</td>
<td>57.6</td>
</tr>
<tr>
<td>Income</td>
<td>$0 =$ only a state pension</td>
<td>38.9</td>
</tr>
<tr>
<td></td>
<td>1 = other income above the state pension</td>
<td>61.1</td>
</tr>
<tr>
<td>Occupational status</td>
<td>$0 =$ low occupational status; low-prestige production, high-prestige service</td>
<td>43.9</td>
</tr>
<tr>
<td></td>
<td>1 = high occupational status; high-prestige professionals</td>
<td>56.1</td>
</tr>
<tr>
<td>Need of care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need of care (IADL)²</td>
<td>$0 =$ no need of IADL care</td>
<td>43.0</td>
</tr>
<tr>
<td></td>
<td>1 = need of IADL care</td>
<td>57.0</td>
</tr>
<tr>
<td>Need of care (ADL)</td>
<td>$0 =$ no need of ADL care</td>
<td>52.4</td>
</tr>
<tr>
<td></td>
<td>1 = need of ADL care</td>
<td>47.6</td>
</tr>
</tbody>
</table>

a. IADL = instrumental activity of daily living.
b. ADL = activity of daily living.

Both the absolute unwillingness of respondents to rely on nonfamily informal support for any but short-term assistance and the fact that 19% of the respondents select private services over home help for short-term housekeeping, but that the preference for private services drops to zero for long-term assistance, are remarkable.
TABLE 2
Preferences of Respondents in Four Hypothetical Care-Need Situations (in percentages)

<table>
<thead>
<tr>
<th></th>
<th>Housekeeping Activities</th>
<th>Personal Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short-Term</td>
<td>Long-Term</td>
</tr>
<tr>
<td>N</td>
<td>2,956</td>
<td>2,917</td>
</tr>
<tr>
<td>Children</td>
<td>47.0</td>
<td>36.8</td>
</tr>
<tr>
<td>Neighbors/friends/acquaintances</td>
<td>7.5</td>
<td>—</td>
</tr>
<tr>
<td>Private services</td>
<td>19.1</td>
<td>—</td>
</tr>
<tr>
<td>Home help services</td>
<td>26.5</td>
<td>56.4</td>
</tr>
<tr>
<td>Home care services</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Residential care</td>
<td>—</td>
<td>6.4</td>
</tr>
<tr>
<td>Coresidence with family</td>
<td>—</td>
<td>0.5</td>
</tr>
</tbody>
</table>

In summary, these results show that the preferences shift from more informal to formal care as soon as the expected duration of care becomes longer, the care concerns personal care rather than housekeeping assistance, or both.

THE INFLUENCE OF EXPERIENCE WITH RECEIVING CARE

Table 3 shows the significant univariate relationships between preferences and determinants. Presented are the subgroups within the study group that were found to be positively related to one or more of the care options. From now on, we will only distinguish between informal, formal, and residential services.

Respondents who experienced formal assistance with housekeeping activities had a stronger preference for formal home care in all four care-need situations compared with those who did not. These respondents also tended to favor residential care in case they would need long-term care. The experience with formal personal care appeared to be related to a preference for formal home care in the two short-term care situations.

Respondents who experienced informal care, on the other hand, were shown to have a higher preference for informal home care in the four care-need situations compared with those who did not. This experience was also found to be related to a higher preference for residential care in case of long-term care.
TABLE 3
Relationships Between Experience Indicators, Individual and Social Characteristics, and Actual Need for Care as Independent Variables and the Preferences of Elders in Four Care-Need Situations as Dependent Variables (chi-square test)

<table>
<thead>
<tr>
<th></th>
<th>Housekeeping Activities</th>
<th>Personal Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short-Term</td>
<td>Long-Term</td>
</tr>
<tr>
<td>Experience with receiving care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal care (housekeeping)</td>
<td>I*</td>
<td>I/R*</td>
</tr>
<tr>
<td>Informal care (personal care)</td>
<td>I*</td>
<td>I/R*</td>
</tr>
<tr>
<td>Formal care (housekeeping)</td>
<td>F*</td>
<td>F/R*</td>
</tr>
<tr>
<td>Formal care (personal care)</td>
<td>F*</td>
<td></td>
</tr>
<tr>
<td>Individual characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>Advanced age</td>
<td>F*</td>
<td>R*</td>
</tr>
<tr>
<td>Living alone</td>
<td>F*</td>
<td>F/R*</td>
</tr>
<tr>
<td>Adapted housing</td>
<td>F*</td>
<td>F/R*</td>
</tr>
<tr>
<td>Low educational level</td>
<td>I*</td>
<td>I/R*</td>
</tr>
<tr>
<td>Low income</td>
<td>I*</td>
<td>I/R*</td>
</tr>
<tr>
<td>Low occupational status</td>
<td>I*</td>
<td>I/R*</td>
</tr>
<tr>
<td>Low level of well-being</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>Poor mental health</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>Feeling of depression</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>Feeling of anxiety</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>No extraversion</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>Social characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small network</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>Little social support</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>Low level of social functioning</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>Actual need for care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need of care (housekeeping)</td>
<td>F*</td>
<td>F*</td>
</tr>
<tr>
<td>Need of care (personal care)</td>
<td>F*</td>
<td>F*</td>
</tr>
</tbody>
</table>

NOTE: I = an increased preference for informal home care; F = an increased preference for formal home care (including private services); R = an increased preference for residential care. *p < .05.

THE INFLUENCE OF INDIVIDUAL CHARACTERISTICS

In case of a need for assistance, female respondents, those living alone, or those living in an adapted house and of advanced age
preferred formal home care above informal home care in comparison with men, those living with others, those living in a normal house, and the younger respondents (Table 3). Advanced age and living alone or in an adapted house were associated with an increased preference for residential care in case of long-term care. Lower education level, income, or occupational status were related to a preference for informal home care in all four care-need situations. When long-term care is required, these characteristics also tend toward a higher preference for residential care. Compared with high-functioning respondents, those with a low sense of well-being, a low level of life satisfaction, poor mental health, feelings of depression or anxiety, little or no extraversion, and neuroticism had a stronger preference for formal home care.

**THE INFLUENCE OF SOCIAL CHARACTERISTICS**

 Respondents with a small network, little social support, and a low level of social functioning were found to have a stronger preference for formal home care (Table 3) than those with extensive social contacts. In case of long-term personal care, respondents with a small network also favored residential care.

**THE INFLUENCE OF THE ACTUAL NEED FOR CARE**

 A higher need was related to a preference for formal home care in all four care-need situations.

**PREDICTING CHOICES: LONG-TERM HOUSEKEEPING ASSISTANCE**

 The results of the logistic regression analysis can be seen in the trends on choices in relation to different characteristics of the elders when compared with a reference person (see definition in Table 4). This reference person represents a rather average respondent: A women aged 75 years, with high levels of education and occupational status, a high level of well-being and a poor mental health, and living without a partner in a normal house, does not suffer from feelings of depression, anxiety, or neuroticism; receives little social support; has no experience with formal or informal support for housekeeping or
TABLE 4
Probability of Choice for Care Services for Various Characteristics of the Elders Compared With a Reference Person (in percentages); Housekeeping Assistance

<table>
<thead>
<tr>
<th>Experience with receiving care</th>
<th>Informal Home Care</th>
<th>Formal Home Care</th>
<th>Residential Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal care (housekeeping)</td>
<td>15.6</td>
<td>81.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Informal care (housekeeping)</td>
<td>47.3</td>
<td>47.9</td>
<td>4.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individual characteristics</th>
<th>Informal Home Care</th>
<th>Formal Home Care</th>
<th>Residential Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>41.3</td>
<td>53.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Age = 65 years</td>
<td>31.7</td>
<td>66.1</td>
<td>2.2</td>
</tr>
<tr>
<td>Age = 85 years</td>
<td>30.2</td>
<td>64.7</td>
<td>5.1</td>
</tr>
<tr>
<td>Living with partner</td>
<td>27.8</td>
<td>70.8</td>
<td>1.4</td>
</tr>
<tr>
<td>Living with other(s)</td>
<td>37.8</td>
<td>58.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Adapted housing</td>
<td>27.9</td>
<td>66.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Low education</td>
<td>36.7</td>
<td>60.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Low occupational status</td>
<td>32.9</td>
<td>61.7</td>
<td>5.4</td>
</tr>
<tr>
<td>Low level of well-being</td>
<td>26.3</td>
<td>66.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Good mental health</td>
<td>35.8</td>
<td>61.2</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social characteristics</th>
<th>Informal Home Care</th>
<th>Formal Home Care</th>
<th>Residential Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much social support</td>
<td>36.7</td>
<td>60.5</td>
<td>2.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actual need of care</th>
<th>Informal Home Care</th>
<th>Formal Home Care</th>
<th>Residential Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need of care</td>
<td>23.9</td>
<td>72.6</td>
<td>3.5</td>
</tr>
</tbody>
</table>

NOTE: Definition of the reference person: a woman aged 75 years, living without a partner in a normal house, has high levels of education and occupational status, a high level of well-being and poor mental health, receives little social support, and has no experience with formal or informal support for housekeeping or personal care and is not in need of care. a. Only variables that met the .05 significance level were included in this table.

personal care; and is not in need of care. Thus, in comparison with the reference person (who did not experience formal care), respondents who experienced formal care were far more likely to choose formal home care (81.9% versus 65.6%) at the expense of their choice for informal home care (15.6% versus 31.1%) and residential care (2.5% versus 3.3%).

Good predictive factors in case of long-term housekeeping assistance appeared to be the experience with either formal or informal care for housekeeping activities. Those who experienced care from a formal caregiver are more inclined to choose formal care at home
compared with those who did not. Experience with informal care leads to an increased tendency to prefer informal assistance. These elders also favor residential care.

Of the individual characteristics, gender, socioeconomic status, and the level of well-being have a high predictive value. Men, and those with a low occupational status, are more in favor of informal support and residential care. Those with a low level of well-being have a stronger preference for formal support and residential care than those with higher levels.

The age of the elders is particularly associated with the tendency to choose residential care; the greater the age, the greater the preference for residential care. The elders with a partner prefer formal support, just as those living in adapted housing. These last respondents are also more in favor of residential care. In case of a limited education or good mental health, the elders tend to choose for informal support.

Strong social support is the social factor associated with a higher preference for care from informal caregivers. Although we did not expect a direct relationship between the actual need for care of the elders and their preferences, such a relationship did exist. Need predicts a tendency to choose formal home care.

PREDICTING CHOICES: LONG-TERM PERSONAL CARE

In case of long-term personal care, much of the same predictive factors are found (Table 5). Prior experience with formal care is shown to predict a stronger tendency to choose for formal home care. Previous experience with informal care is associated with a preference for informal support. The main individual predictive variables are also gender, socioeconomic status, and well-being. As in the previous situation, men, and those with a low occupational status, show an increased preference for informal support and residential care. A low level of well-being is associated with an increased tendency to choose for formal support or residential care.

Again, increasing age is found to be related to a stronger tendency to choose for residential care. Those who live with a partner tend to prefer formal care. Living in an adapted house is related to a stronger tendency to choose either formal home care or residential care. Finally, the elders who suffer from neuroticism or anxiety show a higher
TABLE 5
Probability of Choice for Care Services for Various Characteristics of the Elders Compared With a Reference Person (in percentages); Long-Term Personal Care

<table>
<thead>
<tr>
<th></th>
<th>Informal Home Care</th>
<th>Formal Home Care</th>
<th>Residential Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference person</td>
<td>27.5</td>
<td>67.6</td>
<td>4.9</td>
</tr>
<tr>
<td>Experience with receiving care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal care (housekeeping)</td>
<td>11.8</td>
<td>84.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Informal care (housekeeping)</td>
<td>40.3</td>
<td>54.6</td>
<td>5.1</td>
</tr>
<tr>
<td>Individual characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>33.3</td>
<td>58.9</td>
<td>7.8</td>
</tr>
<tr>
<td>Age = 65 years</td>
<td>26.3</td>
<td>70.5</td>
<td>3.2</td>
</tr>
<tr>
<td>Age = 85 years</td>
<td>28.5</td>
<td>64.2</td>
<td>7.3</td>
</tr>
<tr>
<td>Living with a partner</td>
<td>26.3</td>
<td>71.1</td>
<td>2.6</td>
</tr>
<tr>
<td>Living with other(s)</td>
<td>32.9</td>
<td>63.1</td>
<td>4.0</td>
</tr>
<tr>
<td>Adapted housing</td>
<td>21.1</td>
<td>70.6</td>
<td>8.3</td>
</tr>
<tr>
<td>Low occupational status</td>
<td>31.3</td>
<td>61.9</td>
<td>6.5</td>
</tr>
<tr>
<td>Low level of well-being</td>
<td>21.0</td>
<td>70.7</td>
<td>8.3</td>
</tr>
<tr>
<td>Feelings of depression</td>
<td>29.1</td>
<td>63.9</td>
<td>7.0</td>
</tr>
<tr>
<td>Feelings of anxiety</td>
<td>27.2</td>
<td>69.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>23.2</td>
<td>70.6</td>
<td>6.2</td>
</tr>
</tbody>
</table>

SOURCE: Definition of the reference person: a woman aged 75 years; living without a partner in a normal house; has high occupational status and a high level of well-being; does not suffer from feelings of depression, anxiety, or neuroticism; and has no experience with formal or informal support for housekeeping or personal care.

a. Only variables that met the .05 significance level are included in this table.

Discussion

The results of this study underline the trend reported by others (Brody et al. 1984; Daatland 1990); the preference for informal support declines when the expected duration of care becomes extended and/or when the support involves personal care rather than housekeeping assistance. Whereas almost 50% of the respondents would prefer help from children for short-term housekeeping, only slightly more than one-fourth prefer this kind of support when long-term personal
care is needed. If the respondents are in need of long-term personal care, more than 60% prefer the help from home care services and nearly 10% would apply for residential care. This shift in preference might be attributed to a desire to not rely too heavily on informal helpers. This seems to be even more true where nonfamily informal helpers are concerned. None of the respondents chose them for long-term support. Although earlier research found the attitudes of older persons toward filial obligation to be unclear (Brody et al. 1984), our data suggest a clear statement: Elders genuinely prefer public help in situations that imply an intensive and lasting care commitment.

Private services were only preferred for short-term housekeeping, which probably reflects the unfamiliarity of the Dutch elders with private services in a chronic-disease setting. But with the introduction of private service organizations in Dutch health care, demand for these kinds of services may very well rapidly increase.

Because many attributes of the respondents influence their preferences, the preference pattern will be sensitive to the sample that is surveyed. Because of the specifics of the Dutch primary health care system, there is no reason to assume differences between the patients of GPs and the total Dutch population. With the Health Insurance Act ensuring that the health care costs of individuals and families with an income below a fixed level are covered, and private health care insurance being extended to all higher income households, more than 95% of the Dutch have their “own” GP. Furthermore, the Dutch tend to be rather loyal to their GP and do not change their primary physician unless there is a compelling reason to do so, such as when they move to another city.

In this study, of the initial 5,834 patients selected by GPs, data on only 2,991 (51.3%) persons were at our disposal for analysis. Although such an attrition is not unusual, it carries the danger of selection bias. However, neither the selection of GPs or their patients nor the comparison of the ultimate research population with the total Dutch population are reason to assume the existence of selection bias in this study.

Our findings confirm the strong predictive value of the experience with formal or informal care for the selection of care arrangements. Because of the cross-sectional design of this study, an overrepresentation of those who previously had a preference for these types of care,
and therefore applied for it, cannot be excluded. However, because we asked the "experienced" respondents to freely choose the person/service of their first preference, the findings suggest the induction or stabilization of a positive attitude and even a preference for these types of care. Thus, being subjected to (in)formal caregivers seems no reason for older persons to alter their preferences.

Closely related to this issue is the dynamic of "induced demand": If services are readily available, people are more likely to use them and, thus, to prefer them. The increased preference for formal services must be understood against a background of increased availability of public help on one hand and the societal attitudes and expectations that there should not be too much reliance on informal care, on the other hand. Arguably, the more publicly funded services are available and generally used, the more likely it is to appear to disabled elders and their helpers that heavy reliance on informal caregivers is an imposition, a burden. Thus, the more formal care is provided, the more this is likely to create attitudes in favor of, and preferences and demand for, formal services by both older persons and their network members.

Gender, age, socioeconomic status, and level of well-being appeared to be the best additional predictive factors. The effect of socioeconomic status and well-being on the selection of care arrangements has been reported elsewhere (McAuley and Blieszner 1985). Advanced age appeared to be especially related to the preference for residential care.

Particularly in regard to long-term care, the findings indicate that the elders who are "frail" tend to favor formal home care, whereas the "stronger" ones more often prefer informal home care. Thus, a low level of well-being, poor mental health, less social support, living in adapted housing, and having disabilities were positively related to a preference for formal home care. The socioeconomic status of the elders is an exception to this rule in that a higher education level and a higher occupational status are associated with a preference for formal home care.

When long-term housekeeping assistance is needed, the preference for informal and residential care seems related. Apparently, the "stronger" elders consider themselves capable of arranging informal care at home. A larger percentage of those who doubt this ability among the "strong" persons focus on residential care, possibly to
avoid the stage of formal home care. Nonetheless, the selection of residential care is not fully clear from our analysis, but it might be explained as an enlargement of the concept that “frail” elderly are more likely to choose formal care; when long-term personal care is needed, the “frail” older persons tend to prefer residential care instead of home care.

The need for care was assessed on the basis of four hypothetical care-need situations in which the respondents were asked to project themselves. Nevertheless, discrepancies between the actual need for care of the respondent and some or all of these situations are likely. We therefore checked the relationship between the actual need for care of the respondents and their preferences. The multivariate analyses showed a significant, direct relationship between the need for care and the selection of care arrangements when long-term housekeeping assistance is needed. The strong correlation between previous experience with care and the preference for the various types of care might explain these results; this relationship covers almost the whole of the effect of the need for care on the selection of care arrangements, but a small direct association continues to exist. This association becomes evident in the long-term housekeeping care situation.

Some limitations of this study concern the assessment of the experience with care; previous experience with informal and formal home care should be assessed for the preceding several years. Furthermore, additional factors that might also affect the preferences of older persons may be considered, for example, the general attitudes of the elders toward receiving informal and/or formal support. Also, the influence of network members on the elders’ choices is a well-known phenomenon (Allen et al. 1992; Pratt et al. 1989).

Finally, we would restate the relevance of research for the selection of care among older persons to those contemplating the future of long-term care for the elders. Our findings suggest that the younger and “stronger” elders state a higher preference for informal care in case they would need assistance. In contrast, the older and “frail” elders are more likely to choose formal home care at first and, in more severe circumstances, apply for residential care. Planning future care arrangements for the elders should seek to accommodate these observed differences. What should be taken into account, though, are the above-mentioned effects of “induced demand” and the changing so-
cietal attitudes toward, for example, filial obligation. Government funding might encourage the preference and, therefore, the demand for public services that policymakers must respond to by providing still greater access to formal care.

The cross-sectional design of this study does not allow us to attribute our findings to either a cohort effect or shifting preferences in case of becoming older and impaired. Health care planning would benefit from an understanding of whether the younger elders will continue to favor informal support when they grow older and become disabled or whether they would change their preference in favor of formal home care and residential care. Longitudinal research could make a decisive contribution to decision-making on which type of care should be emphasized in the long term.

REFERENCES


Wielink et al. / PREFERENCES FOR CARE 197

of Provisions of Elders Living Independently in the Community of Venlo). Maastricht, the Netherlands: Rijksuniversiteit Limburg, vakgroep economie van de gezondheidszorg.


Harteloh, P. P. M. and A. F. Casparie. 1991. Kwaliteit van Zorg; van een Zorginhoudelijke naar Bedrijfsvondelijke Aanpak (Quality of Care; From a Content-Oriented Approach Concerning Care to a Managerial Approach). 's-Gravenhage/Lochem, the Netherlands: Vugd/De tijdstroom.


Van Dinter, G. and M. Witteveen. 1991. *Project Voorlichting aan Ouderen op Schouwen-Duiveland deel IIa; Een Onderzoek naar de Behoeften van Ouderen aan Voorlichting over Gezondheidszorg en Voorzieningen* (Project Information to Elders at Schouwen-Duiveland; part IIa; an Examination of the Need of Elders for Information About Health and Provisions). Wageningen, the Netherlands: Landbouwuniversiteit Wageningen, vakgroep voorlichtingskunde.


Gina Wielink is a research associate at the Department of Medical Technology, Assessment at the University of Nijmegen. Her research interests include policy issues in long-term care.

Robbert Huijsman is Associate Professor at the Institute of Health Policy and Management of the Erasmus University in Rotterdam and Director of the Erasmus Centre for Research on Ageing. He is currently conducting research on organizational issues in health care.

Joseph McDonnell is a statistician at the Institute of Health Policy and Management of the Erasmus University in Rotterdam.