The Decision Making Unit in the Choice of a Long-Term Health Care Facility

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Abstract

As the size of the elderly market increases, so does the need to understand the decision making process for selecting long-term health care (LTHC) facilities. This study describes the membership and relative degree of influence of specific participants in the decision making unit (DMU) as well as the situational effects of time, prompt and stage of decision making on the size, composition and influence of DMU participants.

Introduction

The elderly market is steadily growing in importance and size (Knowlton 1988; Lumpkin and Greenburg 1982; Tongren 1976). The "gray market" represents 13% (29 million people) of the population in the United States (Mulligan 1991), and is expected to increase to 20% by the year 2025 (Smith 1989). Unfortunately, over half of the 4.8 million people with chronic diseases are over the age of 65 which compounds the problem of finding adequate care during these years of life (Zilz 1985).

With increases in the size of the elderly population, more people will be faced with the decision to place another individual in a long-term health care (LTHC) facility. Holmes et al. (1989) state that "... currently, about 7% of the United States population aged 75 to 84 and 22% of the 85 and over population reside in nursing homes." The choice for a LTHC facility is usually made within a short period of time which may compound the customer's problem of selecting the best option. Dove (1986) found that 46.8% of his respondents made the decision in less than one week. Smith (1984) reported similar findings concerning the time frame of the decision. Neugroschel and Notzon (1985) state that the consumer is highly ego involved in this situation but forced to choose among alternatives whose differences may not be easily discernable. Kotler and Clarke (1987, p. 264) provide an analogy with physician selection, stating:

Many people, for example, pick a primary care physician out of the Yellow Pages, even though the Yellow Pages listing gives no information other than the physician's specialty, address, and telephone number. Given the importance of having a competent physician with whom

one can have a trusting, comfortable patient-physician relationship, this decision process seems irrational. However it is based on two factors: 1) there is very little information available on physicians; ... and 2) the information that is available does not allow meaningful distinctions between physicians.

A similar process may also apply to the choice of a LTHC facility, but this choice is also influenced by a number of participants which may alter the process. Davis (1976) stated that the decision making unit (DMU), rather than the individual, is the appropriate focus for research in this area. According to Urban and Star (1991), a DMU is defined as a group of individuals who are brought together in order to purchase a product or service. The process of decision making within the DMU is still not fully understood and further investigation of the process has been called for by a number of authors (Davis 1976; Grashof and Dixon 1979; Szybillo, Sosanie and Tenenbein 1979; and Qualls 1987). Basic research questions that have yet to be answered include the relative degree of contact and influence of DMU participants as well as situational factors that affect the usage and number of DMU members performing specific tasks.

The purpose of this research is to describe the membership and relative degree of influence of various participants within the DMU in the selection of a LTHC facility. Research questions to be addressed include: Which member of the DMU actually makes the decision and which member(s) influence the process? What activities or tasks are performed by the various participants in the DMU and how do the composition, tasks

and influences change with situational effects? As a larger number of people face the problem of placing a relative or friend into a LTHC facility, the need to address questions concerning the decision making process increases. Thus, this research also indicates several areas in need of increased attention from practitioners and academics.

Background

Recognition of multi-person influences in consumer decision making implies that marketers must do more than focus on the individual (Kassarjian 1971). Rather, the relative influence and explicit needs of varying participants must be considered if strategies are to be effective. Early investigations described varying roles assumed by either husband or wife and their respective influence in the purchasing process (Burns and Granbois 1977, Cunningham and Green 1974, Green and Cunningham 1975, Davis 1971). Researchers also expanded the concept of multi-person influences within the DMU to include children (Atkin 1978, Szybillo, Sosanie, and Tenenbein 1979). Not only do the number and identity of the family members who fill the roles vary from family to family and product to product, but the tasks performed by family members also vary (Davis 1970; Davis and Rigaux 1974). It is important to note that few studies concerning the family have investigated the role and influence of non-family members on the DMU.

The decision making unit (DMU) construct was originally developed in an industrial purchasing context (Webster and Wind 1971). Research on industrial buyer behavior has shown that the DMU is composed of more than one individual (Bellizzi and Belonax 1982; Brand 1972), and that the mix of decision makers and influencers may change for each stage or phase of the purchasing process (Stock 1975). The composition of the DMU has also been shown to vary by product and situation (Wilkie 1990).

A list of the different roles or tasks to be carried out by the members of a DMU for products has been provided by Schiffman and Kanuk (1991). DMU

participants for products may consist of (a) deciders who have the power to choose a product; (b) buyers who actually make the purchase or complete the transaction process; (c) gatekeepers who control information; (d) influencers who provide information or advice; (e) users who consume the product; (f) maintainers who service or repair products; (g) preparers who transform the product into a suitable form; and (h) disposers who discontinue product usage. Deciders, gatekeepers and influencers are of particular interest for LTHC facilities.

While the decision to place another individual in a

Table 1

Individuals Expected in the DMU for LTHC facilities

friend	(Froebe et al. 1982)
health care worker	
daughter	(Smith 1984)
sister	
grandchild/ren	
family doctor	(Jarboe and McDaniel 1985)
clergy	(Van Meter and Johnson 1985)
individual to be placed	(Dove 1986)
son	
spouse	
brother	
LTHC facility employee	
government worker	
social worker	

LTHC facility may be an individual one, family members and various health care workers may also be involved in information search or in the final choice of a facility (Van Meter and Johnson 1985). In fact, the person who actually decides is usually not the individual to be placed in the LTHC facility (Dove 1986; Jarboe and McDaniel 1985, Froebe et al 1982). According to Dove (1986) and Jarboe and McDaniel (1985), the individuals which have the most influence in the decision are relatives, friends and physicians. The expected participants in the DMU for choosing a LTHC facility are shown in Table 1.

Situational variables are thought to explain much variation in consumer behavior (Belk 1975). According to Davis (1970) and Davis and Rigaux (1974), different members of the DMU in health care will perform different tasks according to the situation. For example, Payne, Bettman and Johnson (1987) found time available for shopping to be one of the more pervasive factors that affects consumer behavior in general. Thus, the time available for the decision of a LTHC is important.

In addition to time, the prompt is a situational

variable with compels a DMU to action regarding the LTHC facility decision, and may be any of the following: 1) patient's physical problems, 2) patient's decreased mental capabilities, and 3) care-giver's health (Froebe et al 1982). Finally, the stage of decision making for the DMU may affect recall of the process as well as activities performed by its participant. People may be able to best recall their perceptions concerning the particulars of the decision making process while currently making the decision. Those individuals having made the decision within the last six months should have better recall of their perceptions than those who made the decision over six months ago, with both of these stages more accurate than for those individuals who anticipate making the decision in the future.

Methodology

Hypotheses

To answer the research questions, five hypotheses are proposed. First, the person who actually decides on a LTHC facility is usually not the individual to be placed (Dove 1986, Jarboe and McDaniel 1985, and Froebe et al. 1982).

H₁: There will be no difference in the frequency of times any member of the DMU performs the role of decision maker.

Johnson (1982), found that the person(s) most often involved in the admission of an individual to a LTHC facility were the offspring, siblings, other family members, physician, friends, and clergy. Dove (1986), and Jarboe and McDaniel (1985), suggested that relatives, friends, and doctors exerted the greatest influence on the LTHC facility decision. Without a consensus as to the level of influence expected from specific participants, the hypothesis is stated in null form as:

H₂: There will be no difference in the level of influence exerted by various participants in the DMU.

In addition to influencing the ultimate decision, participants of the DMU may also perform various activities such as discussing the problem, seeking printed information about LTHC facilities, visiting prospective facilities, making phone inquiries, and contacting knowledgeable people about LTHC options. With no a priori expectations of specific tasks performed by DMU participants, the hypothesis is stated in null form as:

H₃: There will be no difference in the types of activities performed by various participants in the DMU.

How do the composition, tasks and influences change with situational effects? According to Stock (1975), the size of the DMU will vary by situation and stage of the

decision. According to Davis (1970) and Davis and Rigaux (1974), the tasks performed by the members of the DMU will vary by situation and product. To test this proposition, the hypothesis is stated in null form as:

H₄: The size (number of members) in the DMU will not vary by: a) stage of the decision, b) the incident that prompts the decision and, c) the time available in which to make a decision.

H₅: The number of tasks performed by members of the DMU will not vary by: a) stage of the decision, b) the incident that prompts the decision and, c) the time available in which to make a decision.

Data analysis was designed to provide information on the composition of the DMU for LTHC facility choices, influencers of the choice, the tasks they perform, and the situational effects on the process.

Sample

The DMU is the unit that chooses the LTHC facility and, therefore, the entire membership of the DMU are the people to be sampled. Rogers, Buchanan and Johnson (1988), found the average age of the sponsor at the time of the patient's admission was 53.69 years and that 73.51% of the sponsors were offspring of the individual. The average age of the patient was 81.38 at the time of admission. Wingard, Jones and Kaplan (1987) suggested that the rate of nursing home utilization increased with age. Given that the average age of the sponsor admitting the patient is 53 years old and that the person who most often arranges the admission of the patient is an offspring or other family member, the sample frame for this research was adults age 45 and over.

A national mail panel, (Market Facts, Inc.) was employed in developing the sample. Market Facts maintains a nationally representative (based on census data) pool of over 250,000 households who have agreed to respond to questionnaires periodically. Consequently, the response rate and response quality are much higher than that available from other methods. In order to capture an adequate number of responses from those people involved in the decision, the proposed research samples disproportionately from those geographic areas (using zip codes) that have a high concentration of LTHC facilities. The zip codes were obtained from the list of LTHC facilities contained in *The National Directory of Nursing and Residential Homes for the Aged* (1987). The number of surveys sent was six hundred.

Data Collection Instrument

A self-administered questionnaire was sent to the prospective respondents. to obtain the following mea-

asures: 1) whether the respondent had actually participated or would participate in a LTHC decision; 2) stage of the decision making process; 3) the prompt for seeking information concerning a LTHC facility; 4) the identity of the actual decision maker; 5) the length of time that was available to make the decision; 6) the tasks performed by various individuals of the DMU; and, 7) the degree of influence exerted by the various members of the DMU.

Results

There were 472 completed forms returned from the 600 mailed, which resulted in an effective response rate of 78.7%. However, a qualifying question was included in the questionnaire to determine if the respondent had

or would participate in a decision for a LTHC facility. One hundred twenty-seven respondents replied they could not imagine themselves ever participating in this type of decision. Therefore, 346 questionnaires (57.6% response rate) were used to test the research questions and hypotheses, consisting of respondents who had made a LTHC decision over 6 months ago, those who make the decision within the last 6 months, and those currently in the decision making process.

A summary of the demographics of the sample respondents is shown in Table 2. Although the sample was predominately female (90%), this may not overly limit the generalizability of the sample. Previous studies have shown that the principal care giver in most situations is a female member of the family, notably a sister or daughter (Froebe et al 1982; Gonyea 1987).

The age of the respondents ranged from 45 to 88 with a mean age of 64 years. This age group is slightly older than previous findings. Rogers, Buchanan and Johnson (1988), found the average age of the sponsor at the time of the patient's admission was 53.69 years with the patient having a mean age of 81.38 years. The difference in age does not seem to bias the study in that the purpose of this study was to obtain responses from both the sponsor and the patient being placed. If one were to average the mean ages of the patient and the sponsor found by Rogers, Buchanan and Johnson, the result would be a mean of 67.54 years which would be comparable to the mean age of 64 years obtained in this study. Respondents were located throughout the continental United States. The percentage of respondents from each geographical area closely paralleled the percentage of possible respondents from each geo-

Table 2
Demographics of the Sample

Age:	Mean: 64			
	Range: 45 - 88			
		<u>Number</u>	<u>Percentage</u>	
Gender:	Female	424	89.8%	
	Male	<u>48</u>	<u>10.2%</u>	
		472	100.0%	
Income:	Less than \$ 7,500	40	8.5%	
	\$ 7,500 to \$12,499	70	14.8%	
	\$12,500 to \$17,499	46	9.7%	
	\$17,500 to \$19,999	41	8.7%	
	\$20,000 to \$22,499	39	8.3%	
	\$22,500 to \$27,499	55	11.7%	
	\$27,500 to \$34,999	56	11.9%	
	\$35,000 to \$39,999	37	7.8%	
	\$40,000 to \$49,999	48	10.2%	
	\$50,000 to \$59,999	<u>40</u>	<u>8.5%</u>	
		472	100.1%*	
Education:	some high school	47	9.9%	
	high school graduate	208	44.1%	
	some college	118	25.0%	
	college degree or more	<u>99</u>	<u>20.9%</u>	
		472	99.9%*	
		<u>Geographic</u>		
<u>Questionnaires Mailed</u>		<u>Location</u>	<u>Questionnaires Returned</u>	
#	%		#	%
73	12.1%	New England	55	11.7%
83	13.9%	Mid Atlantic	48	10.2%
130	21.7%	Mid West	114	24.2%
75	12.5%	Central West	43	9.1%
70	11.7%	South	67	14.1%
41	6.8%	Southwest	43	9.1%
23	3.8%	Mountain	23	4.9%
<u>105</u>	<u>17.5%</u>	Pacific	<u>79</u>	<u>16.7%</u>
600	100.0%		472	100.0%

*Different from 100% due to rounding

graphical area. In other words, there was little over-representation or under-representation by geographical area.

Deciders

Descriptive statistics assess the deciders among the DMU, with the tabulation of the responses shown in Table 3.

Table 3
Deciders in the DMU

DMU Participants	Number	Percentage
Daughter	79	25.9%
Son	57	18.7%
A true group decision	44	14.5%
Individual to be placed	36	11.9%
Family physician	32	10.4%
Spouse	22	7.3%
Sister	9	3.1%
Social worker	5	1.6%
Brother	3	1.0%
Friend	3	1.0%
Grandchild	2	.5%
LTHC employee	2	.5%
Health care worker	0	0.0%
Government worker	0	0.0%
Clergy	0	0.0%
Other	11	3.6%
	305	100.0%
Item nonresponse	41	
	346	

While the individual to be placed in a LTHC decision was cited as the decider by 11.9% of the sample subjects, a true group decision which included the individual to be placed was suggested by an additional 14.5% of respondents. Thus, the individual was described as being involved as a decider by 26.4% of the sample respondents. Thus, the findings reinforce earlier studies (Dove 1986, Froebe et al. 1982, Jarboe and McDaniel 1985) which suggest the individual to be placed is less likely to be the decider than are other individuals in the DMU. Children of the individual and the physician were the most often given responses as deciders in the DMU.

Influencers

Which members of the DMU would most often have more influence in selecting a LTHC facility? The measure of influence was employed as the dependent variable in the MANOVA to test this hypothesis, with the results shown in Table 4.

Four DMU participants were reported to have the greatest influence on the decision: the spouse, daughter-in-law, physician, and children of the individual to be placed. While children have been cited in prior studies, the role of the daughter-in-law has not been distinctly recognized. Utilizing the Scheffe test of differences in mean scores, these findings also show the lower degree of influence exerted by the individual to be placed in comparison to the spouse, physician, children, and social or health care workers. These findings allow one to reject the null hypothesis and conclude that the various members of the DMU exert different degrees of influence.

Further, the degree of influence exerted within the DMU by social workers, health care workers, long-term care facility workers, grandchildren, friends, and siblings of the individual emphasize the breadth of people who may be involved in this decision. Such non-family participants in the DMU provide expert advice which may affect whether a LTHC facility is chosen and, if so, which one may provide the best care.

Gatekeepers

The respondent was asked to consider the various people involved in the task of locating and evaluating the different types of LTHC facilities and to indicate the degree to which these tasks were performed by each potential DMU participant. The five tasks that members of the DMU might perform were to: discuss the problem, seek printed information, visit a prospective facility, make phone inquiries, and contact knowledgeable people. The responses to these questions are presented in Table 5.

There was an overall significant difference (Wilks $p=.000$) between the various tasks performed and the people within the DMU, with 4 significant functions explaining 98.7% of the variation. On the first dimension, the canonical loadings show that the tasks of making phone inquiries and seeking printed information differentiated respondents. The task of contacting knowledgeable people loaded on the second dimension. The third dimension was comprised of the task of visiting the prospective facility. The final dimension included the task of discussing the problem. All of the tasks had a significant effect in differentiating the respondents.

Scheffe tests were conducted in order to determine the difference between the members of the DMU in performing the tasks. Significant Scheffe tests (at the .05 level) are indicated in the lower half of Table 5. In comparison to the individual to be placed, phone

Table 4
Differential Influence by DMU Members

DMU Member	Influence Mean Score*	Scheffe' ^a Group is Different from:
Spouse	1.38	individual, brother, sister grandchild, friend, clergy
Daughter-in-law	1.58	
Doctor	1.63	individual, brother, sister, grandchild, friend, clergy
Son/Daughter	1.79	individual, brother/sister, grandchild, friend, clergy
Social Worker	2.19	
Health Care Worker	2.24	
Long Term Care Facility Worker	2.43	
Grandchild	2.72	
Friend	2.97	
Brother/Sister	2.98	
Individual to be placed	3.08	spouse, doctor, son/daughter, social & health care workers
Clergy	3.11	
Government Worker	3.25	

(Wilks p= .000)
 * Score based on an Influence Scale ranging from Strongly Influential (1) to Not Influential (5)
^a Scheffe contrasts between influence scores that are significant (p < .05).

inquiries were made more often by a child, physician, social worker, daughter-in-law, or spouse. The daughter-in-law sought printed information more often than other DMU participants as well as more often than the individual to be placed.

The daughter-in-law and spouse contacted knowledgeable people more often than others, while a friend contacted knowledgeable people significantly more often than a child, physician, LTHC worker, or the individual to be placed. Again, the daughter-in-law and a child visited prospective facilities significantly more often than others in the DMU, including the individual to be placed.

Discussing the problem involved a greater number of individuals in the DMU, with the spouse, physician, daughter-in-law, and a child engaging in this activity more often than the individual to be placed. Overall, the tasks of making phone inquiries and discussing the problem seemed to have been performed more often than the more strenuous tasks of seeking printed information, contacting knowledgeable people, or visiting prospective facilities. These findings allow one to reject the hypothesis as proposed and conclude that the various members of the DMU perform the various

tasks at different frequency levels.

Situational Effects

To assess situational effects on the size of the DMU, the number of persons involved in the DMU was summed for each respondent and used as the dependent variable in the MANOVAs. The independent categorical variables were (a) the stage of the decision making process, (b) the prompt for making the decision; and (c) the time available to make the decision. A summary of the findings for this hypothesis can be seen in Table 6.

Variation in size of the DMU across the various stages and prompts were both found to be insignificant. In contrast, the variation in size of the DMU across the time

available to make the decision was significant (p=.0129). The DMU consisted of about four participants when there was seven days or less to make a decision, and a mean of about six participants for those having between eight and fourteen days to make the decision. In keeping with this pattern, those having two to three weeks to make the decision tended to have a mean of three persons in the DMU. When the time available to make the decision was over three weeks, the average size of the DMU was five persons. These findings lend partial support for Stock's (1975) theory concerning DMUs as the size of the DMU was found to vary with the time in which to make a decision.

Each participant in the DMU may have performed up to five different tasks. The number of tasks performed by each person was summed and used as the dependent variable in the MANOVA, thus the summed score could range from zero to five times the number of individuals involved in the DMU. The independent categorical variables were (a) the stage of the decision making process, (b) the prompt for making the decision; and (c) the time available to make the decision. The findings are shown in Table 7.

The variation in the number of tasks performed across

Table 5
Differentiating DMU Members by the Tasks Performed

Task	Discriminant Loadings ^a				
	I	II	III	IV	
Make Phone Inquiries (MPI)	.860	.310	.295	.167	
Sought Printed Information (SPI)	.710	.178	.280	.099	
Contact Knowledgeable People (CKP)	.242	.941	.171	.141	
Visit Prospective Facility (VPF)	.285	.183	.918	.191	
Discuss the Problem (DTP)	.123	.131	.163	.968	
F-test, significance	.000	.000	.000	.000	
Percent of variance explained	60.4	20.0	12.4	5.9	
(Wilks p=.000)					
	<u>Scores for Tasks Performed*</u>				
	<u>MPI</u>	<u>SPI</u>	<u>CKP</u>	<u>VPF</u>	<u>DTP</u>
Individual to be placed	2.07	1.28	1.41	1.32	2.07
Brother/Sister	2.25	1.47	1.58	1.53	2.25
Child	2.62 ^b	1.89	1.21	2.01 ^b	2.62 ^b
Grandchild	2.16	1.35	1.39	1.39	2.16
Friend	2.36	1.42	1.78 ^b	1.58	2.36
HC Worker	2.31	1.42	1.44	1.42	2.31
Physician	2.64 ^b	1.21	1.28	1.27	2.64 ^b
LTHC Worker	2.30	1.36	1.25	1.27	2.30
Social Worker	2.44 ^b	1.42	1.62	1.71	2.44
Government Worker	1.85	1.08	1.15	1.15	1.85
Clergy	2.00	1.00	1.13	1.00	2.00
Daughter-in-law	2.77 ^b	2.38 ^b	2.23 ^b	2.46 ^b	2.77 ^b
Spouse	3.00 ^b	1.76	2.14 ^b	1.95	3.00 ^b

^a Varimax rotation for correlation between discriminating variables and canonical discriminant function

^{*} Scores based on a responses ranging from A Lot (3) to Not At All (1)

^b Scheffe contrasts between categories that are significant (p < .05).

the various stages of the decision ($p=.007$) was significant, while differences in the number of tasks performed across the time available for the decision was less remarkable ($p=.086$). Variation in the number of tasks performed across the incidents which prompted the decision was not significant.

There was a difference in the mean scores between respondents who had made the decision over six months ago and respondents who had made the decision within the last six months, where the former tended to perform a lower number of tasks than DMUs which had made the decision within the last six months. Differences were found in the mean scores between respondents who had seven to fourteen days to perform the tasks and respondents who had either less than seven days or 15 to 21 days to perform the tasks. These findings lend partial support for Davis (1970) and Davis and Rigaux's (1974) theories concerning performance of tasks within the DMU in that the number of tasks were found to

vary with the time for the decision and the stage of the decision making process.

Discussion and Conclusions

As the elderly market increases in size, health care professionals must be prepared to satisfy the needs of individuals to be placed in LTHC facilities as well as their significant others, as influential participants of the DMU. Beginning with the basic questions concerning DMU size, influence, tasks and situational variations, the results of this study provide a basis for continued investigations of this decision making process.

The limitations of these findings reflect those found in any cross sectional sample of a population. The study relies on the recall of respondents as they report their perceptions of varying tasks and influences exerted by

others. If resources allowed simultaneous questioning of all participants, the reported influence, decision maker, and task performances may change. While this study samples disproportionately from areas with a high concentration of LTHC facilities, problems encountered in other areas were not addressed even though these families must also find a suitable LTHC facility.

When respondents in this study were asked who actually made the decision, 73.6% of the respondents named an individual other than the person being placed in the LTHC facility. The remaining 26.4% of the sample cited the individual to be placed as the decision maker or indicated the decision was a true group decision. The participants filling the decider role were most likely to be the daughter, the son, or the family physician. It is interesting to note that the daughter-in-law was not cited as a decider, though she was listed as having a strong influence on the decision. While comments were not solicited from respondents, daugh-

Table 6
Situational Effects on the Size of the DMU

	<u>Stage of the Decision</u>		
	Made the Decision Over 6 <u>months ago</u>	Made the Decision Within the <u>last 6 months</u>	Making the Decision <u>Now</u>
Size of DMU* (p=.343)	4.39	5.30	4.28

	<u>Incidents that Prompted the Decision</u>				
	<u>Patient's Health</u>	<u>Financial Concerns</u>	<u>Patient Mobility</u>	<u>Family Concerns</u>	<u>Family Member's Health</u>
Size of DMU* (p=.857)	4.56	4.45	4.46	4.33	3.73

	<u>Time Available to Decide</u>				
	-1- 7 days <u>or less</u>	-2- 7 Days to <u>14 days</u>	-3- 15 Days to <u>21 days</u>	-4- More than 21 <u>days</u>	<u>Scheffe Test^a</u>
Size of DMU (p=.013)	4.17	5.52	3.0	4.54	2 diff 3 2 diff 1

* Size refers to the average number of members in the DMU

^a Scheffe contrasts between categories that are significant
(p < .05).

ters-in-law may be reticent to make a decision for the family, or to be perceived as having a deciding influence in this type of decision.

Implications of this finding suggest that information about LTHC facilities should be directed to people in their forties or fifties as opposed to the elderly audience exclusively. Further, the information needs of DMU participants must be understood to properly direct the firm's promotional efforts. These findings also reinforce the historically high influence of the physician as the actual decider to place an individual in a LTHC facility.

The individuals that exhibit the greatest amount of influence in the decision making process were family members, notably the spouse, son or daughter and daughter-in-law. Some professionals were also rated as having a high degree of influence in the decision. The physician, social worker, health care worker, and LTHC facility worker were often rated as having a higher degree of influence than the individual to be placed.

The person performing the tasks varied by task. The one task that was performed by most members of the

DMU was discussing the problem. This finding was expected as the individuals that were included in the DMU were either family members or professionals that family members seek out for information. The other four tasks, seeking printed information, visiting the prospective facility, making phone inquiries, and contacting knowledgeable people, were performed in varying degrees by different members of the DMU. Close family members (son, daughter, spouse, and daughter-in-law) tended to perform most of the tasks while professionals (doctor, health care worker, social worker, and LTHC facility worker) tended to contact knowledgeable people. The one individual that seemed to perform all of the tasks most often was the daughter-in-law of the resident, which has not been ex-

plicitly defined in prior studies.

The size of the DMU, did not vary across the various stages of the decision or across the various prompts that led to a decision. It is quite logical that the size of the DMU did not vary across the various prompts and stages due to the fact that individuals who are typically involved in the decision are family members and professionals. The tasks deemed necessary by the DMU must be performed no matter what prompted the DMU into action. Therefore, the number of individuals included in the process will be the same.

The size of the DMU did vary significantly across the time available in which to make the decision. Scheffe tests revealed that the significant differences occurred when the size of the DMU consisted of 6 people as opposed to 3 or 4 people. This may be explained by the fact that when time is scarce (7 days or less) it is not possible to contact all the individuals with which one would like to consult. When the time available increased to 7 to 14 days, the decider still feels constrained by time but makes the necessary contacts. When the time available increases to 15 to 21 days, the

Table 7
Situational Effects on the Number of Tasks Performed

<u>Stages of the Decision</u>					
	-1- Made the Decision Over 6 months ago	-2- Made the Decision Within the last 6 months	-3- Making the Decision Now		Scheffe Test ^a
# of Tasks Performed* (p=.007)	9.48	13.77	10.64		1 diff 2
<u>Incidents that Prompted the Decision</u>					
	Patient's Health	Financial Concerns	Patient Mobility	Family Concerns	Family Member's Health
# of Tasks Performed* (p=.540)	10.94	9.65	9.79	9.60	7.60
<u>Time Available to Decide</u>					
	-1- 7 days or less	-2- 7 Days to 14 days	-3- 15 Days to 21 days	-4- More than 21 days	Scheffe Test ^a
# of Tasks Performed (p=.089)	9.23*	12.33*	6.57*	10.09*	2 diff 3 2 diff 1
* Mean number of tasks performed by members of the DMU					
^a Scheffe contrasts between categories that are significant (p < .05)					

decider, having the time to think about what needs to be done and who may best be able to perform the tasks, may only contact those individuals that they deem necessary.

The number of tasks performed varied significantly across the time available to make the decision. More tasks were found to be performed when the respondent had 7 to 14 days to make the decision than when the respondent had less than 7 days to make the decision or 15 to 21 days to make the decision. The same argument can be made concerning this finding as was made in the previous paragraph. That is, that the tasks which are essential in making the decision must be performed no matter how much or how little time is available.

The number of tasks did vary significantly across the various stages of the decision. These results suggest that persons who made the decision over six months ago are not performing as many tasks on average as persons who have made the decision within the last 6 months.

Publicity dealing with abuses within the LTHC industry may have caused many consumers to seek more information about the facility before placing their relatives in a particular home.

Suggestions for Future Research

Activities performed by DMU participants raise interesting questions for future research. The two activities completed most often within the DMU were making phone inquiries and discussing the problem. Despite the importance of the decision, respondents reported lower scores for seeking printed information, contacting knowledgeable people, or actually visiting prospective facilities. Whether this is a result of confidence in the current knowledge of the DMU, a function of a reduced choice set and waiting lists for LTHC facilities, or a reduction in search activities for

some other reason remains an avenue in need of investigation.

Implications of task performance should also impact the service orientation and research of LTHC facilities. What services can health care facilities provide to facilitate task completion by members of the DMU? Are toll-free numbers available on a nationwide basis to provide information on facilities in certain regions of the country? Do LTHC facilities hold open houses for families or DMU participants to view alternative locations? Are focus groups used to assist participants within DMUs in their discussions of the problems of locating a facility?

As society places more emphasis on safe and caring environments within LTHC facilities, the DMU participants, tasks and influences may also change. At present, the waiting list to enter a LTHC facility may inhibit improving its marketing functions. As a greater number of elderly individuals seek the service and

supplies increase, tasks omitted now may inhibit growth later in development. While this descriptive study focused on the composition, influence and tasks performed by DMU participants, it did not begin to address the affective components, choice and negotiation strategies used by DMU participants, or the emotional costs of this decision. Related issues which need to be addressed as well concern the effects of our mobile culture with geographically dispersed DMU participants on the tasks performed. As the elderly market continues to grow in size, marketers' understanding of the process, its effect on members of the DMU, and effective strategies will continue to provide interesting areas for future investigations.

References

- Atkin, Charles K., "Observation of Parent-Child Interaction in Supermarket Decision-Making," *Journal of Marketing*, Vol. 42, pp. 41-45, October 1978.
- Belk, Russell W., "Situational Variables and Consumer Behavior," *Journal of Consumer Research*, Vol. 2 pp. 157-164, December 1975.
- Bellizzi, Joseph A. and Joseph J. Belonax, "Centralized and Decentralized Buying Influences," *Industrial Marketing Management*, Vol. 11, pp. 111-115, April 1982.
- Brand, Gordon T., *The Industrial Buying Decision*, London: Cassell Associated Business Programmes, 1972.
- Burns, Alvin and Donald Granbois, "Factors Moderating the Resolution of Preference Conflict in Family Automobile Purchasing," *Journal of Marketing Research*, Vol. 14, pp. 68-77, February 1977.
- Cunningham, Isabella C. M., and Robert T. Green, "Purchasing Roles in the U.S. Family: 1955 and 1973," *Journal of Marketing*, Vol. 38, pp. 61-64, October 1974.
- Davis, Harry L., "Dimensions of Marital Roles in Consumer Decision Making," *Journal of Marketing Research*, Vol. 7, pp. 168-177, May 1970.
- _____, and Benny P. Rigaux, "Perceptions of Marital Roles in Decision Processes," *Journal of Consumer Research*, Vol. 1, pp. 51-62, June 1974.
- _____, "Decision Making within the Household," *Journal of Consumer Research*, Vol. 2, pp. 241-260, March 1976.
- _____, "Measurement of Husband-Wife Influence in Consumer Decision Making," *Journal of Marketing Research*, Vol. 2, pp. 305-312, March 1971.
- Dove, Rhonda W., "Exploring the Selection of a Nursing Home: Who, What, and How," *Journal of Health Care Marketing*, Vol. 6, pp. 63-66, June 1986.
- Froebe, Doris, Althea Balitsis, Sally Beckman, Nancy Dolphin, Vivian Hayes, and Sue Morrissey, "Variables Influencing the Consumer's Choice of Nursing Homes," *Journal of Health Care Marketing*, Vol. 2, pp. 25-33, Spring 1982.
- Gonyea, Judith G., "The Family and Dependency: Factors Associated with Institutional Decision-Making," *Gerontological Social Work with Families*, pp. 61-77, 1987.
- Grashof, John F., and Donald F. Dixon, "The Household: The 'Proper' Model for Research into Purchasing and Consumption Behavior," in *Advances in Consumer Research*, Jerry C. Olsen, ed., Vol. 7, pp. 486-491, 1979.
- Green, Robert T., and Isabella Cunningham, "Feminine Role Perception and Family Purchasing Decision," *Journal of Marketing Research*, Vol. 12, pp. 325-332, August 1975.
- Hair, Joseph F., Rolph E. Anderson and Ronald L. Tatham, *Multivariate Data Analysis*, Macmillan Publishing Company: New York, New York, 1987.
- Holmes, Douglas, Jeanne Teresi, Monica Holmes, Simon Bergman, Yaron King and Netta Bentur, "Informal Versus Formal Supports for Impaired Elderly People: Determinants of Choice on Israeli Kibbutzim," *The Gerontologist*, Vol. 29, pp. 195-202, 1989.
- Jarboe, Glen R., and Carl D. McDaniel, "Influence Patterns and Determinant Attributes in Nursing Home Choice Situations," *Journal of Health Care Marketing*, Vol. 5, pp. 19-30, Summer 1985.
- Karssarjian, Harold H., "Personality and Consumer Behavior: A Review," *Journal of Marketing Research*, Vol. 9, pp. 409-418, November 1971.
- Knowlton, Christopher, "Consumers: A Tougher Sell," *Fortune*, pp. 65-74, September 1988.
- Kotler, Philip, and Roberta N. Clarke, *Marketing for Health Care Organizations*, Englewood Cliffs, New Jersey: Prentice-Hall, 1987.
- Lumpkin, James R., and Barnett A. Greenburg, "Apparel-Shopping Patterns of the Elderly Consumer," *Journal of Retailing*, Vol. 58, pp. 68-89, Winter 1982.
- Mulligan, Thomas, "Parenteral Antibiotic Therapy for Patients in Nursing Homes," *Review of Infectious Disease*, Supp 2, pp. S180-S183, 1991.
- Neugroschel, William J., and Linda R. Notzon, "A Model of Consumer Decision Making in the Selection of a Long-Term Care Facility," paper presented at 1985 Meeting of the Gerontological Society of America, 1985.
- Payne, John W., James R. Bettman and Eric J. Johnson, "Advertising Selection Strategy in Decision Making," paper presented at the Stellner Conference on the Uses of Cognitive Psychology in Advertising and Marketing, University of Illinois, 1987.
- Qualls, William J., "Household Decision Behavior: The Impact of Husbands' and Wives' Sex Role Orientation," *Journal of Consumer Research*, Vol. 14 pp. 264-279, September 1987.
- Rogers, Martha, Richard W. Buchanan, and Ken-

- ynn E. Johnson, "First Impressions: Preferences of Sponsors of Nursing Home Patients in the Search and Interviewing Processes," *Journal of Health Care Marketing*, Vol. 8, pp. 33-41, 1988.
28. Schiffman, Leon G., and Leslie Lazar Kanuk, *Consumer Behavior*, Englewood Cliffs, New Jersey: Prentice Hall, 1991.
 29. Smith, Lee, "What Do We Owe to the Elderly?," *Fortune*, pp. 54-55, March 27, 1989.
 30. Smith, Scott M., "Family Selection of Long-Term Care Services: It's Not Just the Facility That's Important," *Health Marketing Quarterly*, Vol. 1, pp. 101-113, Summer 1984.
 31. Stock, James R., *An Analysis and Evaluation of the Distribution Mode Selection Decision*, unpublished Ph.D. dissertation, The Ohio State University, Columbus, Ohio, 1975.
 32. Szybillo, George J., Arlene K. Sosanie and Aaron Tenenbein, "Family Member Influence in Household Decision Making," *Journal of Consumer Research*, Vol. 6, pp. 312-316, December 1979.
 33. Tongren, H. N., "Imputed Income as a Factor in Purchasing Power of the Over-65 Age Group," in *Proceedings of the Southern Marketing Association*, H. W. Nash and D. P. Robins, eds., Mississippi State, Miss.: The Southern Marketing Association, pp. 124-126, 1976.
 34. Urban, Glen L., and Steven H. Star, *Advanced Marketing Strategy*, Englewood Cliffs, New Jersey: Prentice Hall, 1991.
 35. Van Meter, Mary Jane S., and Patricia Johnson, "Family Decision Making and Long-Term Care for the Elderly: Part II: A Review," *Journal of Religion and Aging*, Vol. 14, pp. 59-72, Summer 1985.
 36. Webster, Fredrick E., and Yoram Wind, *Organizational Buying Behavior*, Englewood Cliffs, New Jersey: Prentice Hall, 1972.
 37. Wilkie, William L., *Consumer Behavior*, New York, New York: John Wiley and Sons, 1990.
 38. Wingard, Deborah L., Denise Williams Jones and Robert M. Kaplan, "Institutional Care Utilization by the Elderly: A Critical Review," *The Gerontologist*, Vol 27, pp. 156-163, 1987.
 39. Zilz, David A. "Current Trends in Home Health Care," *American Journal of Hospital Pharmacy*, Vol. 42, pp. 2520-2525, November 1985.