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Information Search and Decision Making in the Selection of Family Health Care

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Changes in the supply and demand characteristics of health care services have introduced a strong element of competition into the health care market. This new competitive environment has produced a wide range of health care alternatives that differ on a variety of dimensions. New health care services and products are being introduced at an accelerating rate, yet the response of consumers to these new services, practice plans, and provider alternatives is not well understood. Though we have a large body of literature on patient satisfaction (see Ware, Davies-Avery, and Stewart 1978 for a comprehensive review and Feletti, Firman, and Sanson-Fisher 1986 for a recent empirical study), patient/provider interaction (cf. Hickson, Altemeier, and O'Connor 1983; O'Hair 1986; Rosenberg and Towers 1986; Smith and Pettegrew 1986), patient perception of provider (cf. Deisher et al. 1965; DiMatteo and Hays 1980; Taylor 1986), and patient compliance with provider's advice (cf. Becker and Maiman 1975, 1980; Davis 1968), virtually all of the research centers on the process and outcomes of health care after the patient/provider relationship has been established. How this link is established and the potential relationships between the search process and later process and outcome factors have been all but ignored.

Few studies have explored the nature of the consumer search process for a health care provider. One of the earliest stud-

ies (Cartwright 1967) revealed that many consumers share the implicit or explicit belief that they lack the competence to evaluate a physician's performance in terms of the quality of medical care. As a result, consumers tend to evaluate physicians only on such aspects as personality, quality of interaction, and "art-of-care," for which they believe they can make accurate judgments. Similar findings have been reported by Kane (1969) and Doyle and Ware (1977). These studies are useful and informative, but they were done before the recent proliferation of health care alternatives. In addition, certain information sources, such as advertising, were not available at the time some of these studies were carried out. Further limiting these studies is the rather general nature of the questions put to health care consumers and the fact that no effort was made to identify different patterns of information acquisition or systematic differences in search activity associated with the type of health care provider selected.

Recent studies, though also having limitations, have sought to address some of these problems. Glassman and Glassman (1981) report an investigation of the determinants of the selection of obstetric care. They found that in a sample of 286 women, an average of only 1.2 sources of information were consulted in selecting an obstetrician. Forty-six percent of the women sampled reported using the advice of a friend

Two studies on consumer information search and decision strategies involved in the selection of family health care providers are reported. The first study examined the selection process for both adults and children within the family. Factors associated with dissatisfaction with provider were identified. The second study explored differences among individuals in self-reported presence of a regular health care provider and use of recent innovations in health care such as walk-in clinics and HMOs.

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or neighbor, the largest single source of information. These findings suggest that most consumers do little information acquisition when selecting a physician. They differ little from the findings of Parsons (1951) 30 years before showing that the majority of people choose their physicians "blindly" on the basis of friends' or neighbors' recommendations.

Stewart et al. (1985) and Hickson, Stewart, and Altemeier (1988) report the results of pilot studies on the selection of health care providers by parents for their children. These authors found that 53% of the respondents in their study relied on the advice of friends, relatives, or neighbors. They, too, report an average of only 1.2 information sources consulted and found that fully 82% of the respondents used only one information source. No respondent in their study mentioned consulting more than three sources. Differences in information sources were associated with the type of health care provider selected: families choosing a pediatrician were significantly more likely to use recommendations from a friend or neighbor and from another physician, whereas those selecting a generalist (either a general or family practitioner) were more likely to use their own experience as a patient. Further, these authors note that respondents who selected pediatricians placed greater importance on a recommendation from another physician and the willingness of the physician to return telephone calls quickly, whereas those selecting a generalist placed greater importance on whether the physician could treat all family members, provide prenatal care, provide care at a lower price, offer shorter waiting times, and prescribe medication over the telephone.

Having a "usual source" of health care undoubtedly influences the selection of a health care provider, even when this usual source is not qualified to provide the services required. Such usual sources

may be powerful referral agents, as in the case of an obstetrician referring a pediatrician. The determinants and influence of this "usual-source" effect have been investigated by Kuder and Levitz (1985). They found that having a usual source of health care service was associated with more frequent visits to the provider for illness-related causes even after controlling for differences in other health need and access factors. In addition, having a usual source was a more important determinant of illness-related physician use than was income, expected travel time, or expected waiting time. Kuder and Levitz conclude that the lack of information available to potential users of health care services, particularly lack of specific entry points into the medical care system such as regular sources of advice, treatment, and referrals, is a significant barrier to utilization of health care services.

The availability of usual sources has increased considerably in recent years and consumers now have a wide array of health care plans from which to choose. Grazier et al. (1986) examined determinants of choice among different health care insurance plans. As the entire premium was paid by the employer, the selection decision was based on factors other than price, though the plans differed in terms of deductibles and co-payment requirements. The researchers found that the single most important determinant of choice of health care plan was past experience, whether the consumer was satisfied or dissatisfied with the usual (past) provider. Thus, consumers who used a particular provider, were satisfied, and found that provider available only under a particular health plan tended to select that plan, regardless of whether the plan was new or had been in force for some time. This finding seems to suggest that consumers have an aversion to switching from health care providers who are providing care they perceive as satisfactory. It is consistent with the earlier findings of Cartwright (1967), who comments ". . . in spite of this somewhat arbi-

trary method of selection, people do not change their doctor frequently. . . ." (p. 21-2).

The pattern emerging from these studies is that consumers engage in relatively little information search when selecting a health care provider and are loath to switch once one has been identified. The reason appears to be consumers' inability to evaluate the quality of health care service in more than the most general and superficial way. The pattern of behavior observed is consistent with that suggested in the information processing (Petty, Cacioppo, and Schumann 1983) and attitude formation literature (Chaiken 1980), which suggests that the ability to use information is a key determinant of the acquisition and use of information.

Though the pattern of findings is consistent, prior studies have tended to examine only the population in aggregate. Researchers have not sought to identify different segments of consumers based on information search and decision criteria (with the exception of the Stewart et al. 1985). Prior studies also are decidedly lacking in richness of description, particularly where heterogeneity may be present among health care consumers. The studies we report are designed to provide some of this detail.

PURPOSE OF THE STUDIES

Our studies are part of an ongoing project investigating the determinants of health care provider selection. They were designed to answer the following questions.

1. How do consumers search for a primary health care provider?
2. Are consumers who select different *types* of providers in fact seeking different (or differently weighted) sets of benefits?
3. Can these consumers be segmented meaningfully on the basis of demographic or psychological variables?

4. Does the process of provider selection differ between selection for self and selection for others?
5. Do consumers who have a personal physician differ in characteristic ways from those who do not? If so, in what ways?
6. Do consumers who have used walk-in medical clinics or who have selected HMOs instead of more traditional insurance coverage differ in systematic ways from other health care consumers?
7. What are the marketing implications of the answers to the preceding questions for consumers and different types of providers?

Study 1 addressed the first four questions. Its focus was the choice of a given type of health care provider and whether the selection process differs when the provider is for self versus a child in the household. The critical question addressed in this study was whether there are different consumer segments in the selection of a physician and how these segments are manifested in terms of the information used in the selection process and the benefits sought from the physician. Study 2 was designed to address questions 5 and 6. Because relatively few individuals in study 1 reported having no physician or using a walk-in medical clinic or HMO, additional data were required.

The studies were exploratory and each complements the other. After describing each study in turn, we draw some generalizations from the pattern of results in both studies.

STUDY 1

Method

A survey was conducted among members of a mail panel developed and maintained by the School of Business of a large university in the southwestern United States. The panel consists of families recruited to be a representative cross-section of the State of Arkansas in terms of location, age, house-

hold composition, and socioeconomic status.

Though the panel is designed to be broadly representative of the population of Arkansas, it has the limitations of all household panels. It tends to underrepresent the very poor, the very rich, and households that are very mobile. Further, because the panel is contacted by mail, a certain level of literacy is necessary for participation. Like all panel members, persons in the Arkansas panel have been prerecruited, that is, individual household members have agreed in advance to serve on the panel for a specific period of time during which they may be asked to participate in several different surveys or studies. Such panels have the advantage of providing a relatively high response rate in survey studies and can be constructed through the use of quota sampling in such a way that panel members match the general population demographically.

Questionnaires for study 1 were designed after a series of open-ended interviews with 108 health care consumers in Nashville, TN, whose children were patients of pediatricians, family practitioners, and general practitioners. Questions in the survey covered topics related to use of health care providers by adults and children in the household, factors involved in the selection of health care providers, type of providers used, information sources consulted, level and reason for dissatisfaction with current and past providers, and whether the family had ever changed physicians. A variety of demographic questions also were asked. Because the presurvey interview data suggested that the female head of household was most likely to be the primary decision maker in choosing a child's health care provider, the female head of household was asked to complete the survey unless there was no female head of household.

Of the 750 families contacted, 581 (77.5%) completed and returned usable questionnaires. Table 1 provides a

simple demographic description of the respondents. Among respondents returning the questionnaire, 549 (94%) reported having a regular health care provider. Among the 182 households reporting children under the age of 18 living at home, 175 (93%) reported having a regular physician for their children living at home. In 36% of the latter households, the same provider was reported to serve both the adult household member responding to the questionnaire and the child in the home.

Findings

Respondents were asked to indicate the type of health care professional they saw on a regular basis. Of those responding to this question, 192 (40%) reported seeing a general practitioner, 174 (36%) reported seeing a family practitioner, 66 (14%) reported seeing an internist (internal medicine specialist), 32 (7%) reported seeing an obstetrician/gynecologist, and 15 (3%) reported seeing some other type of provider. Seventy of the 549 respondents (13%) failed to identify their provider, though they indicated that they did have a regular provider. This finding may reflect a lack of familiarity with types of health care specialists on the part of a subset of consumers.

Age appears to be an important factor in the type of physician an adult selects.¹ For example, persons between 19 and 35 years of age, regardless of sex, are rather unlikely to use an internist. Only 2% of households with a male household member between 19 and 35 years of age report that an internist is the primary health care provider, whereas 14% report using an internist when the male head of household is between 36 and 49 years of age. At age 50 and older, internists represent 42% of the primary health care providers for

¹All comparisons reported are based on the Z test for differences between proportions (Churchill 1987).

TABLE 1
Demographic Characteristics of Respondents in Study 1

	%
Age of Respondent (years)	
19-35	23
36-49	23
50-65	36
66+	19
Education of Respondent	
High school education or less	46
Some college	39
College graduate or postgraduate work	10
Marital Status of Respondent	
Married	77
Single	5
Widowed/Divorced	17
Number of Children in Home	
None	61
1	13
2	16
3 or more	10
Age of Youngest Child in Home (years)	
0-4	30
5-10	27
11-18	43
Race of Respondent	
White	95
Black	4
Other	1
Household Income	
Less than or equal to \$15,000	31
\$15,001 to 30,000	34
\$30,001 or more	35

the sample. These differences are statistically significant ($p < .05$). This general pattern appears to hold regardless of the sex of the respondent.

Among women, obstetricians are the most frequently reported primary health care provider among respondents aged 19 to 35 years. Not surprisingly, this percentage declines with age to zero at age 66+. Family practitioners and general practitioners (FP/GP) are most likely to be primary health care providers during the middle years, 35 through 65. Their share of patients ranges from about 40% of respondents aged 19 through 35, to 50% of those aged 36 through 49, to almost 70% of those aged 50 through 65. For respondents older than 65 years, the FP/GP share of patients again is only about 40%. These differences are statistically

significant ($p < .05$). Throughout all age categories, the division between respondents seeing family practitioners and those seeing general practitioners is consistently even.

Choice of adult health care provider does not appear to be influenced greatly by socioeconomic factors. No significant differences in health care provider are associated with income, occupation, or education. This finding holds for the choice of child health care provider as well.

Among households with a regular health care provider for their children, 37% report seeing a pediatrician, 40% report seeing a family practitioner, 19% report seeing a general practitioner, and 3% report seeing some other type of provider. In general, the younger the

child, the more likely a pediatrician is to be used as a primary provider, but age of child appears to have little influence on the selection of a general practitioner or family practitioner. Forty-four percent of households with children under 4 years of age report using a pediatrician, as do 36% of those with children 5 through 10 years of age and 20% of those with children between 11 and 18. The last figure is statistically significantly different from the percentage of households with children under 4 who use pediatricians ($p < .05$). The use of FP/GPs increases as use of pediatricians declines.

Pediatricians are particularly likely to be the provider of choice when an OB/GYN delivered the child. Eighty-three percent of children delivered by an OB/GYN are seeing pediatricians. In contrast, if the child was delivered by an FP, the household is about equally likely to use an FP or pediatrician, but not a GP. If the child was delivered by a GP, the household tends to select either a GP (39%) or a pediatrician (62%), but not an FP. In general, households that select a pediatrician as the primary care provider for the child consider more physicians and more types of physicians than those selecting either a GP or FP. For example, 53% of households selecting a pediatrician report considering more than one type of provider in comparison with only 25% of households selecting an FP and 39% of households selecting a GP (all statistically significant differences, $p < .05$).

Information Sources

Respondents were asked to rate the relative importance of various information sources used in selecting a health care provider on a scale ranging from 1 (not at all important) to 4 (very important). The percentage of respondents indicating a source was very important is reported by provider type in Table 2 for the adult's health care provider and in Table 3 for the child's health care pro-

TABLE 2
Information Sources Used in Selection of Adult's Health Care Provider by Type of Provider (percent saying "very important")

Information Source	Provider Used				All Respondents (N = 479)
	Internist (N = 66)	Family Practitioner (N = 174)	OB/GYN ^a (N = 32)	General Practitioner (N = 192)	
Friends	19.7	21.4	34.8	26.4	23.4
Family	25.8	27.6	25.0	27.0	26.5
Phone call to provider	16.7	18.4	15.6	9.4	14.1
Observation of office when passing by	3.4	9.8	9.7	3.7	6.4
Another doctor	33.3	17.8	25.0	16.2	19.5
Heard doctor speak (PTA, church, etc.)	7.0	6.0	13.8	4.9	6.3
Nonphysician medical professional (nurse, paramedic, etc.)	7.0	14.4	33.3	14.3	14.7
Employer provides care through this doctor or practice	6.1	6.3	15.6	4.7	6.0

vider. These tables suggest that the perceived relative importance of a source of information varies with the type of provider selected. For example, friends, family, other doctors, and nonphysician medical health professionals all appear to be relatively important sources in the selection of an OB/GYN. In contrast, family and other doctors appear to be the important information sources in the selection of an internist. Interesting differences also are found in the perceived relative importance of various information sources used in choosing health care providers for children. Friends, for example, are a more important information source in selecting a pediatrician than in selecting other types of specialists.

Many of the differences among practitioner types observed in Tables 2 and 3 are consistent with common health care usage patterns. For example, households using FPs and GPs as the child's health care provider are much more likely to report previous experience with the provider than households using pediatricians. It is also not unreasonable to assume that the more

specialized a provider (an internist in the case of adults), the more important other physicians become as information sources.

Some findings in Tables 2 and 3 are not as clearly related to usage patterns. Friends appear to be relatively more important sources of information among families selecting pediatricians for their children. Telephone inquiries appear to be less important in the case of GPs for both adults and children.

Taken together, Tables 2 and 3 provide an interesting and potentially useful guide to the relative importance of various information channels. Note, however, that no channel of information received endorsement by more than a third of the respondents, a finding consistent with prior studies suggesting that consumers engage in modest shopping activity when selecting a physician.

Factors Important to the Selection Decision

Though sources of information used in the selection of a primary health care provider may be limited, specific factors may nevertheless drive the selection decision. Respondents were asked

TABLE 3
Information Sources Used in Selection of Child's Health Care Provider by Type of Provider (percent saying "very important")

Information Source	Provider Used			All Respondents (N = 172)
	Pediatrician (N = 64)	Family Practitioner (N = 69)	General Practitioner (N = 33)	
Friends	23.40	12.30	16.10	17.47
Family	22.20	13.90	25.80	19.40
Phone call to provider	14.30	15.60	6.50	12.80
Observation of office when passing by	4.80	7.70	9.70	6.70
Another doctor	21.30	20.00	13.30	19.10
Heard doctor speak (PTA, church, etc.)	6.60	3.10	3.20	4.30
Nonphysician medical professional (nurse, paramedic, etc.)	16.40	9.50	6.70	11.30
Prenatal visit	24.60	27.00	20.70	24.10
Previous experience with provider	11.90	57.10	55.20	39.50
Employer provides care through this doctor or practice	6.80	4.80	10.70	7.10

to rate the relative importance of various factors in their selection decision on a scale ranging from 1, unimportant/not considered, to 5, extremely important. Table 4 is a breakdown, by type of provider selected, of the percentage of respondents who indicated that a factor was either 4, very important, or 5, extremely important, in the selection of the adult's primary health care provider. Table 5 provides comparable information for households selecting a provider for children. Relatively few differences are found in the overall responses between factors re-

lated to the adult selection decision and those related to the child selection decision. Very substantial differences are found in the relative importance assigned to particular factors across provider types, however. These factors range from the physician's formal qualifications, to the recommendations of friends, to the physician's personality and listening abilities. Various characteristics of the practice and the services offered by the physician also appear to vary in importance across provider types for both the adults' providers and the children's providers.

Not surprisingly, parents are less concerned that a pediatrician can treat the whole family if they have selected a pediatrician. More important to users of pediatricians is that the practice have more than one doctor and that the doctor be willing to evaluate and discuss a child's development and behavior. Adults who select FPs appear particularly interested in responsiveness, immediacy of care, and the personal rapport of the physician with the patient. In contrast, persons selecting an internist appear generally less concerned about all of these factors. Indeed, for

TABLE 4
Factors Considered Very Important or Extremely Important in Selection of a Health Care Provider for Self (percentage of respondents)

Factor	Provider Used				All Respondents (N = 479)
	Internist (N = 66)	Family Practitioner (N = 174)	OB/GYN (N = 32)	General Practitioner (N = 192)	
1. Doctor's formal qualifications	65.4	80.3	80.7	78.4	77.9
2. Length of time doctor has practiced	44.4	38.7	51.6	33.5	38.0
3. Doctor has recently completed residency	22.8	23.8	20.7	18.5	20.9
4. Recommended by another physician	68.9	63.9	61.3	60.7	62.6
5. Recommended by a friend	23.7	35.8	46.9	29.9	32.5
6. Doctor has sense of humor	15.0	20.8	29.0	18.8	20.3
7. Doctor does not appear in a hurry	58.3	75.5	67.7	55.7	64.4
8. Doctor is a good listener	75.8	89.2	90.0	78.7	83.0
9. Doctor has warm personality	48.3	61.7	64.5	50.9	55.8
10. Doctor can treat whole family	41.7	67.3	32.3	53.5	55.1
11. Doctor has evening and Sunday office hours	11.8	26.2	20.0	20.5	21.1
12. Doctor will prescribe medicine without an office visit	27.9	36.0	25.0	28.8	30.9
13. Could get an appointment quickly	53.9	66.0	64.8	61.7	61.5
14. Practice was convenient (to home, work, etc.)	36.7	46.1	45.2	41.5	42.1
15. Practice has a short waiting time	33.8	47.1	46.7	45.0	44.7
16. Doctor returns calls quickly	52.5	63.0	45.2	55.0	56.8
17. Doctor has low fee schedule	25.8	26.2	33.3	31.8	32.4
18. Doctor does not request payment on day of service	35.5	37.2	37.7	30.6	34.4
19. The practice has more than one doctor	28.8	36.5	33.3	27.3	30.9
20. Doctor is willing to go to emergency room	70.3	80.1	71.0	74.4	75.7
21. Doctor willing to talk about adult stress	58.6	55.0	44.8	51.2	53.4
22. Doctor is female	3.4	12.5	16.1	4.2	7.8
23. Near, attractive office	22.0	23.6	19.4	18.1	20.2
24. Doctor is male	27.6	27.4	10.7	13.7	20.5
25. Doctor's office has an X-ray machine	31.6	36.4	30.0	27.8	31.5
26. Doctor provides information on health promotion (ways to avoid illness, promote physical wellbeing)	62.9	64.3	61.3	55.5	59.9
27. Doctor willing to discuss treatment alternatives	80.7	85.5	75.0	76.6	80.0
28. Doctor promotes periodic checkups	65.0	55.2	58.6	47.4	52.9
29. Doctor tries to avoid hospitalization	84.1	79.2	64.5	80.2	79.0

TABLE 5
Factors Considered Very Important or Extremely Important in Selection of a Health Care Provider for Child (percentage of respondents)

Factor	Provider Used			All Respondents (N = 172)
	Pediatrician (N = 64)	Family Practitioner (N = 69)	General Practitioner (N = 33)	
1. Doctor's formal qualifications	81.7	77.4	71.0	76.1
2. Length of time doctor has practiced	36.7	42.9	31.2	37.9
3. Doctor has recently completed residency	25.9	18.0	3.2	17.3
4. Recommended by another physician	51.7	54.0	40.6	50.3
5. Recommended by a friend	37.3	30.2	32.3	33.3
6. Doctor has sense of humor	30.0	23.8	21.9	25.4
7. Doctor does not appear in a hurry	73.3	67.8	53.1	65.6
8. Doctor is a good listener	80.0	86.9	65.6	79.2
9. Doctor has warm personality	49.2	50.0	43.7	48.1
10. Doctor can treat whole family	23.3	72.1	59.4	49.7
11. Doctor has evening and Sunday office hours	28.8	30.0	21.9	27.4
12. Doctor will prescribe medicine without an office visit	23.7	31.2	18.8	26.1
13. Could get an appointment quickly	61.7	65.1	46.9	59.0
14. Practice was convenient (to home, work, etc.)	28.3	41.9	25.0	33.1
15. Practice has a short waiting time	47.5	50.0	40.6	48.5
16. Doctor returns calls quickly	63.8	64.5	48.4	60.5
17. Doctor has low fee schedule	28.3	29.5	30.2	28.3
18. Doctor does not request payment on day of service	22.4	32.2	25.8	26.8
19. The practice has more than one doctor	52.6	34.4	22.5	38.1
20. Doctor is willing to go to emergency room	85.0	84.1	65.6	79.6
21. Doctor willing to talk about adult stress	61.0	51.6	43.7	53.4
22. Doctor is female	76.7	66.7	58.3	67.7
23. Neat, attractive office	33.3	28.6	19.4	27.5
24. Doctor is male	16.7	18.0	9.7	15.2
25. Doctor will discuss child safety	39.0	35.9	25.8	33.8
26. Doctor allows parent participation in selecting treatment alternatives	62.7	65.1	56.3	62.2
27. Doctor promotes periodic checkups	54.2	44.2	34.4	46.2
28. Doctor tries to avoid hospitalization	76.2	74.2	75.0	74.7
29. Doctor gives shots rather than oral medicine	23.7	26.6	31.3	27.3

each of the practitioner types in Tables 4 and 5, a characteristic set of factors and benefits appears to be related to the selection decision.

Factors Related to Dissatisfaction

Contrary to prior findings, study 1 suggests that health care consumers experience a high degree of dissatisfaction with providers, at least at some point in time. Sixty-one percent of the respondents reported that they had been sufficiently dissatisfied with a health care provider to contemplate change and 52% had actually changed physicians as a result of their dissatisfaction.² Ta-

²Dissatisfaction with health care provider could have been in relation to the adult respondent's provider or a provider serving the respondent's child.

ble 6 summarizes the reasons respondents gave as very or extremely important determinants of this dissatisfaction by type of provider with whom the respondent was most recently dissatisfied. In general, the factors most frequently contributing to dissatisfaction are related to the perceived quality of care, availability of the provider, and the provider's perceived concern for the patient. Interestingly, the frequency of factors being cited as contributing to dissatisfaction varies by the type of provider. Dissatisfaction with the physician's expertise (concerned doctor did not know as much as he should) appears to be a very potent contribution to dissatisfaction with FPs. Virtually all factors related to dissatisfaction are mentioned more frequently for FPs than for GPs. The reason may be a higher

set of expectations about FP performance rather than actual differences in services delivered.

STUDY 2

Two potentially important questions could not be addressed with the data obtained from the Arkansas panel. Because relatively few respondents reported not having a regular health care provider, we could not do a meaningful comparison of persons who had regular providers and those who did not. Further, panel members did not report large-scale use of HMOs or walk-in medical facilities. Thus, comparisons could not be made between users of those providers and users of more traditional providers. Study 2 was de-

TABLE 6
Factors Rated Very Important or Extremely Important in Determining Dissatisfaction with Health Care Provider by Type of Provider (percentage of respondents)

Factor	Provider Used				All Respondents (N = 225)
	Family Practitioner (N = 47)	General Practitioner (N = 106)	Pediatrician (N = 15)	All Others (N = 57)	
1. Doctor was unconcerned	73.2	65.7	58.3	65.9	66.9
2. Concerned doctor did not know as much as he should	81.6	63.0	57.1	55.6	64.5
3. Could not see doctor when needed	52.5	49.4	57.1	47.6	54.7
4. Could not speak to doctor when needed	53.7	44.9	71.4	45.0	51.5
5. Inconvenient to get to doctor's office	20.5	23.2	28.6	16.6	24.6
6. Doctor charged too much	37.5	22.4	28.6	36.6	33.5
7. Doctor did not provide acceptable payment plan	32.5	11.6	14.3	19.5	23.3
8. Doctor was too popular, had too many patients	33.3	18.4	28.5	18.0	24.5
9. Did not get well as fast as should have	43.7	47.3	38.5	43.7	43.9

signed to obtain data for these types of comparisons.

Method

A large psychographic study was carried out in the greater metropolitan area of Nashville, TN. Questionnaires were mailed to approximately 3000 households that were balanced for location, age, and socioeconomic status. Each household was notified prior to being sent a questionnaire. Of the households contacted, 1860 completed a usable questionnaire (a 61% response rate). A quota sampling procedure was used to ensure that the respondents were broadly representative of the Nashville population on key demographic characteristics. Individuals who agreed to participate in the study during the prenotification phase of the project were sent a copy of the questionnaire with a dollar bill enclosed. Individuals who had not returned the questionnaire within three weeks of the original mailing were sent another copy of the questionnaire and another dollar bill. Response rates were tracked by key demographic characteristics. When particular groups appeared to be underrepresented, additional individuals were contacted and

invited to participate to ensure that quotas were filled. Table 7 provides a description of the respondents in study 2.

The data for study 2 were obtained as a part of a much larger survey instrument designed to assess a wide range of lifestyle factors, product and service wage patterns, and media habits. One part of the questionnaire contained items related to utilization of health care services. The rest of the questionnaire included a broad range of attitude, interest, and opinion items, demographic questions, and an array of items related to product ownership and usage.

Findings

In general, respondents who report having no regular health care provider are most likely to be single/never married (only 57% of single persons report having a provider versus 78% of all respondents, a difference that is statistically significant at the .05 level). Men are less likely to report having a regular provider (70% of men vs. 83% of women report having a personal physician). The probability of having a regular health care provider tends to increase with age. Only 61% of re-

spondents under age 25 report having a regular provider. This figure increases to 70% for ages 25 through 34, 78% for ages 35 through 44, 83% for ages 45 through 54, and 90% for ages 55 and above. These findings undoubtedly reflect the increasing need for health care with age. Respondents with annual household income below \$25,000 are also somewhat less likely to have a personal provider (70% for those below \$25,000 vs. 80% for those above). This finding may be at least partly attributable to the fact that persons without regular providers are more likely to be single and younger, and hence to have a lower household income figure.

Some evidence is found that persons without a regular physician compensate by making greater use of walk-in medical facilities. Among the 387 respondents who report having no regular provider, 33% report having used a walk-in facility. Among the 1358 respondents who claim to have a regular provider, only 25% used a walk-in facility. This difference is statistically significant ($p < .05$). No differences in use of a walk-in facility or use of a regular provider are associated with the type of insurance coverage a respondent

TABLE 7
Demographic Characteristics of Respondents in Study 2

	%
Age of Respondent (years)	
Under 25	8
25-34	28
35-44	23
45-54	15
55-64	15
65+	12
Education of Respondent	
High school education or less	46
Some college	25
College graduate or postgraduate work	29
Marital Status of Respondent	
Single, never married	11
Divorced, separated, or widowed	20
Married	69
Persons Living in Household	
One	24
Two	61
Three	11
Four or more	4
Race of Respondent	
White	88
Black	11
Other	1
Sex of Respondent	
Male	40
Female	60
Household Income	
Less than \$15,000	23
\$15,000 to \$35,000	43
\$35,000+	34

claims (HMO vs. traditional indemnity).

Users of walk-in facilities tend to be more highly educated. The percentage of users increases linearly with level of education, from 13% of respondents with less than eighth grade education to more than 31% of respondents with a college education. Users of walk-in facilities also are younger; 38% of the respondents under age 25 claim to have used such clinics. This figure declines with age to only 17% for those over age 75.

Few differences among respondents are related to type of health care coverage, with the exception that lower income individuals are least likely to have any form of coverage and traditional in-

demnity plans are more likely to be used by higher income consumers. Few psychographic characteristics are related to the use of walk-in facilities or type of insurance other than those reflecting basic demographic differences in age, income, and education noted before. Not surprisingly, respondents who claim to have a regular health care provider tend to be more concerned about health, diet, and exercise.

DISCUSSION

Consistent with the results of prior studies, the findings of the two studies reported here suggest that families carry out very limited search when selecting health care providers, regardless of whether the provider is for an adult

member of the household or for children. No significant sociodemographic differences are found between families carrying out limited search and extensive search. Families tend to rely primarily on information obtained by word of mouth from just a few individuals or on personal experiences as a patient. These findings reinforce the notion that high involvement (repeated contact with a product or supplier of services with important consequences) does not necessarily produce substantial systematic search behavior. Rather, the findings appear consistent with prior empirical findings (Furse, Punj, and Stewart 1984) and theoretical arguments (Chaiken 1980; Petty, Cacioppo, and Schumann 1983) that high levels of information search are rare, even in high involvement situations, when consumers cannot easily obtain or evaluate information. Health care consumers appear to use simple heuristics when obtaining information about providers, relying on friends, family, or other health care professionals.

We measured the amount of search activity only by the number of sources considered important in making the selection decision. We did not examine the amount and depth of information obtained from a given source. Hence consumers may have made very extensive use of a single source of information, such as friends or relatives who had substantial experience with the health care system or specific providers. Neither did we examine the number of different individual sources of the same general class that an individual consulted. Therefore our findings suggest only that the breadth of information search across sources is very restricted. We do not address the issue of intensity of search within a given source of information, which may be a particularly fruitful area for future research.

Differences in information sources used are observed between families selecting different types of providers, however.

For example, differences are found between families selecting a pediatrician and those selecting family and general practitioners for their children. This finding is not surprising, but probably does not represent different degrees of sophistication between consumer groups. Families utilizing pediatricians were more likely to consult other physicians, whereas those seeing family and general practitioners often had prior contact with their child's future physician and hence could personally evaluate provider conduct. In addition, to explain the finding about other physicians' referrals, we speculate that in a competitive market obstetricians might prefer to refer mothers to pediatricians and avoid the potential loss of repeat business.

Our findings indicate that families who selected alternative types of physicians were seeking different sets of benefits. Those utilizing family and general practitioners obviously were seeking providers who can care for the whole family. Some of these families also appear to place a greater premium on cost and convenience than do those using pediatricians. In contrast, families with very young children appear to be more inclined to select pediatricians. The reason may be simply that some families perceive a need for a child's health care specialist during the first few years of a child's life.

Regardless of type of physician selected, all families appear to place great importance on issues related to the art of care by the physician (willingness to listen, explains well, warm personality, and involves patients in decision making). In addition, a high degree of importance is attached to ready access to care when needed (physician returns calls quickly and will go to the emergency room). These findings are consistent with previous work that documents the overwhelming importance of physician personality characteristics and access to care in predicting satisfaction. Possibly the significant practice dropout rate

documented in our study occurs in part because personality and access cannot be known in advance and expectations are not met in the context of the medical encounter. Indeed, there is some evidence that family practitioners may have reason for particular concern on this dimension.

How expectations develop and in what circumstances unrealistic expectations are created remain to be determined. It is not unlikely, however, that the health care provider creates such expectations or at least contributes to them. If so, health care professionals would be well served by creating more realistic patient expectations.

It is interesting to note the relative importance parents place on behavioral and developmental issues in the selection of children's physicians. Other studies also have documented the extent to which psychosocial issues dominate the concerns parents have for their children. Our findings suggest that parents are interested in information about these issues and may investigate among friends and neighbors the extent to which potential physicians address them.

Another way to explain the high dropout rate identified in study 1 is to view such behavior as a manifestation of shopping behavior.³ Initial visits to a physician might be analogous to brand trial, which may or may not be followed by repeat purchase or adoption. Future research should examine the class of health care consumers based on their relative loyalty/switching behavior. Segments of loyal and nonloyal consumers have long been recognized in other product categories and it would not be unreasonable to assume that they can be identified in the health care field.

Though our studies are cross-sectional rather than longitudinal, entry into the

³We are most appreciative to an anonymous *JHCM* reviewer for this insight.

health care system appears to begin in a rather superficial way. Younger consumers seem less concerned with establishing a regular provider relationship and are more likely to substitute convenient medical facilities for a traditional provider. As consumers grow older they are more likely to establish a primary provider relationship. The studies also reveal some interesting competitive dynamics among physicians. Referral patterns from physician to physician appear to reflect potential competition.

Our studies have several limitations. They are restricted to particular geographic areas that may not be representative of the broader population of the United States. The cross-sectional nature of the studies creates problems of recall and experience bias among respondents. Like most mail surveys, our studies underrepresent key demographic groups, particularly those at the low end of the socioeconomic scale. That group is likely to have unique problems associated with the selection and utilization of health care and warrants further study. Finally, the studies are descriptive and provide few causal insights.

Despite their limitations, our studies afford some useful insights about consumer information search and decision making across several provider alternatives. No other studies to date have examined this issue, which clearly warrants increased study as the number of alternatives available to the health care consumer continues to grow.

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