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AN APPLICATION OF MARKETING THEORY TO HEALTH CARE: A STUDY OF THE SELECTION OF A PRIMARY CARE PHYSICIAN BY GEOGRAPHICALLY MOBILE FAMILIES

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A DISSERTATION

APPROVED BY THE DIVISION OF MARKETING

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The selection of this dissertation topic was made with the full knowledge that it entailed some risks, just as all decisions do. But as one rational decision-maker long ago pointed out, all of man's existence entails a quest for certainty in an increasingly uncertain world. Without a doubt, the task of choosing a research project which would incorporate several diverse interests was a risky one. The antecedants for this study can be traced to my undergraduate days, at Kent State University, when Professors Victor Gravereau, Jim L. Grimm, Paul Pfeiffer, Thomas Reuschling, and Richard Skinner introduced me to the many facets of marketing and set into motion a series of events which eventually led to this dissertation. Later, while pursuing gradutate study at Texas Christian University, Professor Hoyt Gibson introduced me to marketing for nonprofit organizations thereby acquainting me with another dimension of marketing. Thus, in one respect, the roots of this dissertation are deeply embedded in the earliest stages of my academic career.

Anyone who is vain or rash enough to launch into a dissertation, especially when it takes him beyond the

confines of his original training, accumulates debts, the acknowledgement of which is poor repayment for all they have meant in help and encouragement. So it is with this dissertation.

The specific topic for this study evolved from a doctoral seminar in consumer behavior with Dr. James Kenderdine. Intrigued with the uniqueness of health care consumers I sought to further explore the role of marketing in one aspect of health care, that of the decision-making process used by new residents in the selection of a primary care physician. Despite the fact that my topic was somewhat out of the mainstream of marketing thought my committee supported and encouraged me throughout the lengthy process.

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ABSTRACT

AN APPLICATION OF MARKETING THEORY TO HEALTH CARE: A STUDY OF THE SELECTION OF A PRIMARY CARE PHYSICIAN BY GEOGRAPHICALLY MOBILE FAMILIES

This study was concerned with the decision process involved in the selection of a primary care physician and compared actual physician selection behavior with that prescribed by health care experts. First a normative model was constructed from general interest literature followed by examining the behavior of consumers who had recently selected a family physician. Both the normative model and the survey instrument used the problem-solving process as an organizing paradigm.

This study focused on how consumers identify, evaluate, and select primary care physicians by examining when the idea of selecting a physician occurred; when the search actually began; the circumstances prompting the search; sources of information used; and choice criteria used in evaluation and selection of a physician.

The data allowed for testing the normative model and

constructing a positive or descriptive model of primary care physician selection. The following series of conclusions regarding the fundamental premises of the normative model can be drawn. First, not everyone has a primary care physician and those who do tend to have a slightly different demographic profile from those without physicians. Second, consumers tend to be planners and start searching before the need for a physician's service. Third, consumers tend to choose the types of physicians recommended for their primary care. Finally, consumers tend to select their primary care physicians first and then use them in the selection of other physicians.

A second series of conclusions can be drawn about the decision process by comparing the normative and descriptive models. First, it was found that patterns of problems recognition were consistent with those predicted by the normative model. Second, consumers do not start the search process until after moving and most select one, not several candidate's names as predicted by the normative model. Similiarly, consumers do not rely heavily on professional sources or physician credentials for information about physicians, and they collect information about the physician at the time of first contact. In sum, it was found that consumers do not follow the step-by-step procedure of the normative model, but instead follow a less rigorous approach.

AN APPLICATION OF MARKETING THEORY TO HEALTH CARE: A STUDY OF THE SELECTION OF A PRIMARY CARE PHYSICIAN BY GEOGRAPHICALLY MOBILE FAMILIES

CHAPTER I

PROBLEM DELINEATION

The process of marketing is as old as man, having been in existence since trading or exchange began among primitive people.[1] In all periods of its development there has been involvement in the search for understanding the process whereby a society fulfills the needs of its members for economic goods and services. In contrast to the process, however, the formal study and the concomitant written body of knowledge about the activity of marketing, its functions, purpose, and scope is relatively new.

The inception of marketing thought is generally

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[1]George W. Robbins, "Notions About the Origins of Trading," Journal of Marketing 11 (January 1947):228-236.

conceded to be the beginning of the twentieth century.[1] As a relatively young discipline, marketing has undergone continued reassessment, redirection, and restructuring from the very beginning. It has been in a constant state of flux; in some respects, marketing is not as mature as many other disciplines that have had the benefit of being shaped and institutionalized through centuries of academic affiliation. Consequently, marketing is still developing its body of information, theories, principles and rigorous scientific approaches.[2]

One popular scientific approach to the study of marketing is the application of systems theory. Viewed from this perspective, marketing is a complex morphogenic system with characteristic entities and processes. While marketing is a relatively major system that contains other

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[1]Robert Bartels, The Development of Marketing Thought, (Homewood, IL: Richard D. Irwin, Inc., 1962); Robert Bartels, Marketing Theory and Metatheory, (Homewood, IL: Richard D. Irwin, Inc., 1970); Paul D. Converse, The Beginning of Marketing Thought in the United States, (Austin, TX: Bureau of Business Reserach, The University of Texas, 1959); Paul D. Converse, Fifty Years of Marketing in Retrospect, (Austin, TX: Bureau of Business Research, The University of Texas, 1959); Michael Halbert, The Meaning and Sources of Marketing Theory, (New York: McGraw Hill Book Co., 1965).

[2]Eugene J. Kelley and William Lazer, Managerial Marketing: Policies, Strategies, and Decisions, (Homewood, IL: Richard D. Irwin, Inc., 1973), p. 3; William Lazer and Eugene J. Kelley, Social Marketing: Perspectives and

subsystems, it is also a subsystem of a larger whole.[1]

Even though systems theory does not specify exactly what should be considered a part of the system and what should be considered exogenous, scholars have traditionally treated marketing as a business function concerned with the sale of both industrial and consumer products. The formal study of marketing dealt primarily with how transactions are created, stimulated, facilitated, and valued between profit-oriented business firms and consumers. For the most part, marketing scholars have focused their attention on the managerial problems of large consumer goods producers who cater to the needs of the mass market. In contrast, until recently, relatively little attention was devoted to the marketing of services in the private sector, while goods and services provided by non-business sources were generally excluded.[2]

Viewpoints, (Homewood, IL: Richard D. Irwin, Inc. 1973), p. vii.

[1]W.T. Tucker, "Consumer Research: Status and Prospects," in Enhancing Marketing Systems...Consumer, Corporate and Government Interfaces, ed. Reed Moyer (Chicago: American Marketing Association, 1967), p. 267.

[2]Philip Kotler, Marketing for Nonprofit Organizations, (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1975), p. 13.

BACKGROUND OF THE PROBLEM

In the late 1960's and early 1970's, marketing thought underwent a major conceptual revision. During this period, the traditional domains of marketing were challenged and the possibility of studying as well as applying marketing in nontraditional settings was both introduced and explored.[1] This new, expanded concept of marketing has been referred to as either social marketing, non-business marketing, non-commercial marketing, or the broadened concept of marketing. Semantic problems are lessened, however, by the use of the term "metamarketing," which means literally "beyond marketing."

The concept of metamarketing has been one of the major innovations in marketing thought. According to its advocates, all organizations engage in marketing-like activities but differ in the precision with which they practice marketing. The underlying assumption is that if there is both an organization involved and a consumer to be served, then the tools and concepts which have been used successfully in business marketing can be readily applied

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[1]Philip Kotler and Sidney Levy, "Broadening the Concept of Marketing," Journal of Marketing 33 (January 1969):10-15.

by any organization to keep in contact with its customers, comprehend their wants and needs, develop appropriate goods and services to satisfy those wants and needs, and effectively communicate information to them.[1]

Essentially, then, marketing is a universal behavior that infuses all organizations. The practice of meta-marketing is the application of techniques and concepts, often used in the commercial world, to the projection, promotion or furthering of organizations, persons, and causes as well as products and services.

The initial introduction of the concept of meta-marketing stimulated widespread comment, criticism, and responses.[2] Although one marketing scholar contends that this debate has resulted in no less than an identity crisis in marketing,[3] a majority of marketing scholars subscribe

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[1]Philip Kotler, "A Generic Concept of Marketing," Journal of Marketing 36 (April 1972):46-54.

[2]Kotler and Levy, "Broadening the Concept of Marketing," pp. 10-15; David Luck, "Broadening the Concept of Marketing-Too Far," Journal of Marketing 33 (July 1969):53-54; Philip Kotler and Sidney Levy, "A New Form of Marketing Myopia: Rejoinder to Professor Luck," Journal of Marketing 33 (July 1969):55-57; Philip Kotler and Gerald Zaltman, "Social Marketing: An Approach to Planned Social Change," Journal of Marketing 35 (July 1971):3-12; Kotler "A Generic Concept of Marketing," pp. 46-54; David Luck, "Social Marketing: Confusion Compounded," Journal of Marketing 38 (October 1974):70-72.

[3]Robert Bartels, "The Identity Crisis in Marketing," Journal of Marketing 38 (October 1974):73-76.

to the idea of expanding the domain of marketing, beyond the traditional boundaries of commercial business marketing.[1] As a result, the literature on metamarketing is now very substantial and diverse.

Recognition and increasing acceptance of metamarketing by practitioners as well as scholars has led to an accelerated interest in applying marketing concepts and techniques to a wide variety of quasi-business and non-business situations. Anxious to demonstrate the merits of metamarketing, it has been applied in several diversified areas such as: ecology, education, fund raising, health care, population control, government and politics, recreation, religion, social concers and so on.[2]

Zaltman and Jacobs suggest several reasons for the rapid acceptance and application of metamarketing:

1. "there is an increased recognition that the practice of marketing is simply the practice of applied social science and thus applicable to practical problems in action-oriented social science settings..."

2. there is "...an increase in the perceived seriousness of social problems...

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[1]William G. Nichels, "Conceptual Conflicts in Marketing," Journal of Economics and Business 27 (Winter 1974):140-143.

[2]Kotler, Marketing for Nonprofit Organizations; also see the collection of articles in the Journal of Marketing 35 (July 1971).

3. "...the realization by managers in nonbusiness, social change settings that conventional social change tactics are of limited effectiveness and that marketing techniques provide a new perspective and a new arsenal of tools."

4. "...the increased role and importance of the nonbusiness sector and public sector as a provider of goods and services."[1]

While great strides have been made in expanding the scope of marketing, the definitive statement is yet to be written. The boundaries are as yet ill-defined, and the areas of study that comprise its province are only now being investigated.

During the early formative years of metamarketing, scholars focused a great deal of their attention on the application of commercial marketing management tools and techniques in non-commercial settings. In addition, since many organizations outside the private sector provide services rather than products, the marketing of services in the private as well as the public sector began to receive considerable attention in the literature. In contrast, however, much less attention was devoted to studying the consumer in either quasi-business or non-business situations.

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[1]Gerald Zaltman and Pol Jacobs, "Social Marketing and a Consumer-Based Theory of Marketing," in Consumer and Industrial Buying Behavior, eds., Arch G. Woodside, Jagdish Sheth, and Peter D. Bennett (New York: Elsevier North-Holland, Inc., 1977), p. 399.

NATURE OF THE PROBLEM

The study of consumer behavior is a subfield of marketing thought. As an integral part of marketing, it seems logical to suggest that the scope imputed to marketing will affect the range and scope imputed to consumer behavior. It would be a highly questionable procedure to broaden some aspects of marketing and simultaneously restrict other aspects such as consumer behavior to its traditional role. Hence, the broadening of marketing, then, necessarily implies a need to broaden the traditional scope of what delineates both consumer behavior and consumption settings.[1]

Traditionally, the major focus of consumer behavior research has been on the identification, evaluation and selection of products, brands, and institutions with a potential for satisfying given household events and needs

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[1]Rom J. Markin, Consumer Behavior: A Cognitive Orientation, (New York: Macmillan Publishing Co., Inc., 1974), pp. 559-561; Carol A. Scott, "Researching the Broadened Concept of Consumer Behavior," in Broadening the Concept of Consumer Behavior, ed., Gerald Zaltman and Brian Sternthal (Association for Research in Consumer Behavior, 1975), p. 25; and Brian Sternthal and Gerald Zaltman, "Broadening the Concept of Consumer Behavior," in Broadening the Concept of Consumer Behavior, eds., Gerald Zaltman and Brian Sternthal (Association for Research in Consumer Behavior, 1975), p. 1.

as well as the establishment of regularized behavior patterns with respect to selected alternatives. With few exceptions consumer behavior research has focused on the private sector of the economy. Not only has consumer behavior research been restricted to the private sector but even within this setting research has most often dealt with the purchase of goods rather than with services,[1] the major exceptions are limited to studies on the utilization of banking and credit institutions.[2]

In recent years, the need to broaden the traditional scope of consumer behavior research has received increasing attention. Research in the private sector has focused on the similarities and differences between consumer behavior for goods and services. In addition, scholars have begun to compare consumer behavior in commercial settings with

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[1]Morris B. Holbrook and John A. Howard, "Frequently Purchased Nondurable Goods and Services," in Selected Aspects of Consumer Behavior: A Summary from the Perspectives of Different Disciplines, ed. Robert Ferber (National Science Foundation, 1977), p. 189.

[2]For example, see W. Thomas Anderson, Eli P. Cox, and David G. Fulcher, "Bank Selection Decisions and Market Segmentation," Journal of Marketing 40 (January 1976):40-45; H.J. Claycamp, "Characteristics of Owners of Thrift Deposits in Commercial Bank and Savings and Loan Associations," Journal of Marketing Research 2 (February 1965):163-170; J.N. Fry, D.C. Shaw, C.H. von Lanzenauer, and C.R. Dipchand, "Customer Loyalty to Banks: A Longitudinal Study," Journal of Business 46 (October 1973):517-525; and H.L. Mathews and J.W. Slocum, "Social Class and Commercial Bank Credit Card Usage," Journal of Marketing 33 (January 1969): 71-78.

similar behaviors in social situations.

Interest in consumer behavior for services has been stimulated by renewed attention in the literature to the question of whether the marketing of services and products differ. While this topic has received sporadic treatment in the past, the literature provides little insight as to whether differences actually exist. In fact, the authors of many texts completely ignore the issue, while others conclude that service marketing is substantially different from product marketing. More recently, there has been an increasing emphasis on service marketing literature, which can be grouped into three distinct yet overlapping categories: definitional and conceptual discussions; non-empirical managerial discussions; and empirical research.[1]

---

[1]Richard M. Bessom and Donald W. Jackson, "Service Retailing: A Strategic Marketing Approach," Journal of Retailing 51 (Summer 1975): 75-84; Louis E. Boone and David L. Kurtz, Contemporary Marketing, 2nd ed., (Hinsdale, IL: The Dryden Press, 1977), pp. 467-484; James H. Donnelly, "Marketing Intermediaries in Channels of Distribution for Services," Journal of Marketing 40 (January 1976):55-57; William R. George and Hiram C. Barksdale, "Marketing Activities in the Service Industries," Journal of Marketing 38 (October 1974):65-70; Robert T. Green, Eric Laneard, and Alice C. Favell, "Innovation in the Service Sector: Some Empirical Findings," Journal of Marketing Research 11 (August 1974): 323-326; Robert C. Judd, "Similarities or Differences in Product and Service Retailing," Journal of Retailing 43 (Winter 1968):1-9; W. Lewis, "An Empirical Investigation of the Conceptual Relationship Between Services and Products" (Ph.D. dissertation, University of Cincinati, 1976); Edward M. Mazze, Personal Selling:

Several conclusions can be drawn about the marketing of services and products. Similarities do exist between products and services as well as between the marketing strategies used for each. At the same time differences both in products and services can be documented as can marketing patterns for each. A third element of concern, in addition to differences between products and services and the marketing strategies of each, includes the consumer's perspective of marketing. Specifically a consumer perspective includes attitudes, needs and motives, and purchase behavior.

Choice Against Chance, (St. Paul, MN: West Publishing Company, 1976), pp. 195-197; Ward James McDowell, "The Marketing of Consumer Services" (Ph.D. dissertation, State University of Iowa, 1953), pp. 10-21; Donald D. Parker, The Marketing of Consumer Services, (Seattle, WA: Bureau of Business and Economic Research, University of Washington, 1960); John M. Rathmell, Marketing in the Service Sector, (Cambridge, MA: Winthrop Publishers, Inc., 1974), pp. 6-17; John M. Rathmell, "What is Meant by Services?" Journal of Marketing 30 (October 1966):32-35; Adrian B. Ryans and Dick R. Wittink, "The Marketing of Services: A Categorization with Implications for Strategy," in Contemporary Marketing Thought,, eds., Barnett A. Greenberg and Danny A. Bellenger (Chicago: American Marketing Association, 1977), pp. 312-313; William J. Stanton, Fundamentals of Marketing, 5th ed., (New York: McGraw-Hill Book Company, 1978), pp. 482; Weldon J. Taylor and Roy T. Shaw, Marketing: An Integrated Analytical Approach 3rd ed., (Cincinnati: South-Western Publishing Co., 1975), pp. 117-118; Marc G. Weinberger and Stephen W. Brown, "A Difference in Informational Influences: Services vs. Goods," Journal of the Academy of Marketing Science 5 (Fall 1977): 389-402; Warren J. Wittreich, "How to Buy/Sell Professional Services," Harvard Business Review 44 (March/April 1966), p. 127; R.G. Wyckham, P.T. Fitzroy, and G.D. Mandry, "Marketing of Services: An Evaluation of the Theory," European Journal of Marketing 1 (1975):59-67.

Consumer behavior scholars tend to agree that attitudes as well as needs and motives influence the decision to purchase almost any product or service. In the case of servces, attitudes appear to be especially important due to the intangible nature of services. People tend to have more difficulty forming concepts about abstractions than about concrete events or items. Consequently, the intangible nature of services increases the challenge for consumers to form a concept about a service than about a physical product. As a result, consumers tend to emphasize subjective impressions of both services and providers. In terms of needs and motives, the desire for personal attention tends to be more important for services than for products.[1]

The most noticeable difference between goods and services from the consumer's perspective is purchase behavior. In the case of product selection, consumers are normally concerned more with the issue of whether to purchase; in contrast, service selection decisions tend to focus on proper timing and the selection of a source.[2] Of

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[1]Boone and Kurtz, Contemporary Marketing, pp. 468-470; and John A. Howard, Marketing Management: Operating Strategic, and Administrative, 3rd ed., (Homewood, IL: Richard D. Irwin, Inc., 1973), p. 72.

[2]Sidney P. Feldman and Merlin C. Spencer, "The Effect of Personal Influence in the Selection of Consumer Services," in Marketing and Economic Development, ed. Peter D. Bennett (Chicago: American Marketing Association,

particular relevance to the selection of a service is information gathering and processing.

Based on the results of empirical studies, several distinctions regarding the sources of information as well as the processing of information for services can be identified. First, it has been found that consumers utilize different informational sources to learn about services, especially new services. The local and personal nature of most services as well as the buyer's inability to inspect or try out a service prior to purchase forces consumers to depend on the experiences and observations of others. Typically, information is sought from sources such as friends, neighbors, and coworkers.[1]

In addition to relying heavily upon the advice of others, there are significant differences in the way consumers process information about products versus services. Since services are both intangible and non-standardized, it is difficult for the consumer to judge either quality or value which thus requires different types

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1965), pp. 440-452; and Sidney P. Feldman, "Some Dyadic Relationships Associated with Consumer Choice," in Science, Technology and Marketing, ed. Raymond M. Haas (Chicago: American Marketing Association, 1966), pp. 758-775.

[1]Feldman and Spencer, "The Effect of Personal Influence in the Selection of Consumer Services," pp. 440-452; Feldman, "Some Dyadic Relationships Associated with Consumer Choice," pp. 758-775; and Green, Langeard, and Favell, "Innovation in the Service Sector: Some Empirical Findings," pp. 323-326.

of expertise in the evaluation process.[1]

Closely related to the consumer's difficulty in judging quality or value is the risk involved. For example, one study found that in general, consumers perceive a higher degree of risk in choosing services than they do in selecting goods.[2] The lack of personal experience appears to magnify the uncertainty for the consumer, who is faced with the task of purchasing a service. To reduce the perceived risk, consumers rely on information and advice from others.[3]

Although the concept of metamarketing suggests that consumer behavior may transcend its heretofore conventional bounds, there is concern about whether the process of choice and consumption behavior is the same or different

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[1]Green, Laneard, and Favell, "Innovations in the Service Sector: Some Empirical Findings," pp. 323-326; Eugene M. Johnson, "Are Goods and Services Different?" An Exercise in Marketing Theory," (Ph.D. dissertation, Washington University, 1969); Richard W. Mizerski and Marc G. Weinberger, "An Investigation Into the Differential in Attributions of Housewives When Processing Information About Goods Versus Services," in Contemporary Marketing Thought, eds. Barnett A. Greenberg and Danny A. Bellenger (Chicago: American Marketing Association, 1977), p. 514; and Weinberger and Brown, "A Difference in Information Influences: Services vs. Goods," pp. 389-402.

[2]Lewis, "An Empirical Investigation of the Conceptual Relationship Between Services and Products."

[3]Johnson, "Are Goods and Services Different? An Exercise in Marketing Theory;" and Weinberger and Brown, "A Difference in Informational Influences: Services vs. Goods." pp. 389-402.

across commercial and social situations. Recent research has already identified several ways in which consumer behavior for services within the private sector differs from consumer behavior for products. This issue gives rise to the unsettled question regarding the universal application of existing consumer behavior models. Thus, the problem of whether consumer behavior research can be transferred to social settings and problems is a contemporary theme in debate.[1]

Advocates of the transferability debate such as Nakanishi, Cooper and Kassarjian contend:

> ". . .after several decades of borrowing theories, models, and concepts from the social sciences to apply to consumer behavior issues, we may well have reached the point where our models have become sophisticated enough that they can be applied to problems other than to the selection of canned peas."[2]

In contrast, Kotler, a pioneer in metamarketing, takes a more conservative position and cautions that "many of the consumer behavior models in the profit sector are designed to explain choice among frequently purchased items," while

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[1]Scott, "Researching the Broadened Concept of Consumer Behavior," pp. 25-26.

[2]Masao Nakanishi, Lee G. Cooper, and Harold H. Kassarjian, "Voting for a Political Candidate Under Conditions of Minimal Information," Journal of Consumer Research 1 (September 1974), p. 42.

many nonprofit organizations are more concerned with how consumers select "medical sevices, educational services, religious services, political candidates, public issues and so on.[1]

Similarly, Zaltman and Jacobs raise the question as to whether clientele served by noncommercial organizations may exhibit different consumer behavior patterns as a result of the differences between commercial and noncommercial organizations, such as the types of professionals attracted to the organizations as well as the way profit is operationalized. The authors posit "variously motivated people should be expected to interact differently with their clients, resulting in systematic differences in their respective clients' behavior".[2]

Hence, the generality of existing consumer behavior models is an unresolved issue. At present, however, the literature does not provide convincing evidence for the universality of existing consumer behavior models. Instead research has shown that not only are there differences in consumer behavior for products purchased in the private sector but there are also significant differences between

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[1]Kotler, Marketing for Nonprofit Organizations, p. 124.

[2]Zaltman and Jacobs, "Social Marketing and a Consumer-Based Theory of Marketing," p. 403.

consumer behavior for products and consumer behavior for services. Since these differences are evident within the traditional, commercial setting, it seems logical to suggest that differences would also exist when non-commercial settings are examined. Thus, it would be erroneous to assume that consumer behavior models developed within the commercial sector have universal application in the study of consumer behavior in the noncommercial sector. Indeed, this is the perspective taken in this research.

SCOPE OF THE PROBLEM

The health care industry is one of many areas to receive the attention of metamarketing scholars. Taken as a whole, the American health care endeavor is in the midst of what has been frequently viewed as a system facing a massive crisis. The American public has been told that it is receiving the best care in the world, however, these assertions have been countered by charges that "health services in this country are seriously inadequate..."[1] Critics contend that health care in the United States is more a collection of bits and pieces than an integrated system in which the needs and efforts are closely related.

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[1]"Toward a Consumer-Intensive Health System," Social Policy 6 (November/December 1975), p. 2.

As Ellwood and Herbert have aptly observed, the system by which health care is delivered has somehow managed to excape the industrial revolution. It is characterized as having a lack of management skills as well as lacking both vertical and horizontal integration. Instead, it features at least 150,000 small and fragmented delivery units. It is further characterized as having non-competitive cost-plus pricing features, and inefficient incentives for both the buyers and sellers of health services. Finally, the health care system is characterized as selling to uninformed consumers who have little price or quality information on which to base their buying choices.[1]

One of the most controversial aspects of the so-called health care crisis focuses on the medical and nursing workforce shortage as well as the maldistribution and inappropriate utilization of personnel. Of particular concern is the imbalance between the numbers of primary care physicians in contrast to specialists.[2] Thus, many Americans are seriously concerned with the uneven distribution of often high quality but expensive providers.

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[1]Paul M. Ellwood and Michael E. Herbert, "Health Care: Should Industry Buy It or Sell It?" Harvard Business Review 51 (July/August 1973), p. 99.

[2]Dolores Echeveste and John L. Schlacter, "Marketing: A Strategic Framework for Health Care," Nursing Outlook 22 (June 1974), p. 377.

As is evident from various publications and newspaper editorials across the country, a national debate continues to attract an increasing amount of attention and rhetoric from individuals, institutions, the government and others regarding the need for designing a more effective system of health care. Many health specialists, either explicitly or implicitly suggest the need for a health care system which is less hierarchical, more productive, less costly, more prevention-oriented, less focused on illness, and more consumer-centered.[1]

As mentioned earlier, the introduction of marketing into the health care arena is a relatively recent occurrence. A substantial body of literature now exists which supports the notion that health care organizations can benefit from greater systematic attention to and more careful practice of marketing techniques. In addition, documented evidence of the benefit of explicit marketing approaches to health care organizational problems has buttressed the concept.[2]

Compared to the attention given to the application of

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[1]"Toward a Consumer-Intensive Health System," p. 2.

[2]See the collection of papers in the American Marketing Association's Educator's Proceedings for 1976, 1977, and 1978; and the Proceedings: Southern Marketing Association 1977 Conference; also see Health Care Management Review 2 (Summer 1977), 2 (Fall 1977), and 3 (Winter 1978).

marketing techniques in health care delivery, much less progress has been made by marketing scholars in the study of consumer behavior in health care settings. There is, however, an existing and rapidly expanding body of literature relating to health care behavior in the behavioral sciences. While much of this literature is relevant to understanding health care consumer behavior, relatively few attempts have been made to organize the concepts and findings.[1]

McKinlay makes a similar observation about the health care literature relating to the use of health care services. He notes, while social-psychological research relating to health behavior has emerged with some order from what was an unsystematic body of knowledge, there are still a number of shortcomings.[2] More specifically, the writings about the empirical findings tend to be more substantial than the actual findings themselves. Further, the findings have not been consistent, possibly because of varying methodologies, medical care systems, time periods, and rhetorics of interpretation. Most importantly is the

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[1]Lawrence H. Wortzel, "The Behavior of the Health Care Consumer: A Selective Review," in Advances in Consumer Research, ed. Beverlee B. Anderson (Proceedings of Association for Consumer Research, Vol. III, Sixth Annual Conference, 1976), p. 295.

[2]John B. McKinlay, "Some Approaches and Problems in the Study of the Uses of Services-An Overview," Journal of Health and Social Behavior 13 (June 1972): 115-151.

lack of sound theoretical work in the general area.

A thorough review of the literature failed to yield a comprehensive approach to organizing the multitude of concepts relevant to understanding health care behavior. Instead, several models which attempt to relate social-psychological concepts to selected aspects of health behavior were encountered including "The Hochbaum Model," "The Behavioral Science Model",[1] "The Rosenstock Model,"[2] "The Health Belief Model,"[3] "The Drive Reduction Model,"[4] "The Strategy Evaluation Model,"[5] and "The Medical Care Market Model."[6]

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[1]Ibid.

[2]Irwin M. Rosenstock, "Why People Use Health Services," Milbank Memorial Fund Quarterly 44 (July 1966): 94-127.

[3]Marshall H. Becker, "The Health Belief Model and Sick Role Behavior," Health Education Monographs 4 (Winter 1974): 403-414; Marshall H. Becker and Lois A. Maiman, "Sociobehavioral Determinants of Compliance with Health and Medical Care Recommendations," Medical Care 13 (January 1975): 10-24; Lois A. Maiman and Marshall H. Becker, "The Health Belief Model: Origins and Correlates in Psychological Theory," Health Education Monographs 4 (Winter 1974): 336-353; and Irwin M. Rosenstock, "The Health Belief Model and Preventive Health Behavior," Health Education Monographs 4 (Winter 1974): 354-386.

[4]Wortzel, "The Behavior of the Health Care Consumer: A Selective Review," pp. 295-301.

[5]Gerald Zaltman and Ilan Vertinsky, "Health Service Marketing: A Suggested Model," Journal of Marketing 35 (July 1971): 19-27.

[6]Robert M. Crane, Spencer C. Johnson, Henry G. Lobl,

An outstanding contribution of these models is their ability to organize selected concepts and empirical findings as well as illuminate selected aspects of health behavior. However, while these models provide a partial explanation of health behavior, they completely neglect other facets of this complex phenomenon.

Lacking a comprehensive model for health behavior, the framework must be supplied by the researcher. However, given the apparent complexity of health behavior, it is obvious that a comprehensive exploration and assessment of the field would be a gargantuan task, if indeed it would even be possible. For this reason an integrative-comprehensive model, based on a judicious blending of several partial schema of health care consumer behavior is presented and described in Chapter III. At this point, it should be sufficient to present an overview of the proposed health care behavior model.

Overview of Health Care Behavior Model

In general, the model provides a framework for organizing a host of complex variables and processes

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and Corte J. Spencer, "The Marketing of Medical Care Services," in Marketing in the Service Sector, ed. John M. Rathmell (Cambridge, MA: Winthrop Publishers, Inc., 1974): pp. 178-187.

believed to be relevant to overall health behavior, which is viewed as the totality of mental processes and physical activities of a consumer who is involved in the acquisition and use of health related products and services for the purpose of maintaining, improving or restoring health. Given this view, the model can be divided into three general phases of health behavior: pre-utilization, utilization and post-utilization.

Pre-utilization. There are six major determinants which taken together influence the utilization of health care products and services. More specifically, the first segments the population and defines an individual's actual state of health in terms of objective medical criteria. The second determinant introduces the behavioral concept of perception and focuses on the perception of four possible health states. Two of these states involve errors in perception, while the others are based on accurate assessments of reality.

The third determinant deals with the process of situational analysis wherein the individual identifies the perceived problem, the desired outcomes and potential constraints to a solution. This introduces a number of predisposing as well as enabling factors which influence the individual's receptiveness to health care. Included are both endogenous and exogenous factors.

The fourth determinant focuses on the type of health

behavior being displayed: health maintenance, illness, or sick-role behavior. Health maintenance behavior is oriented primarily toward prevention and refers to activities undertaken by individuals in order to preserve health. In contrast, illness behavior takes place subsequent to the perception of symptoms and is oriented primarily toward diagnosis and treatment. Sick-role behavior, while closely related to illness behavior, is curative-oriented; it is undertaken by those who consider themselves ill for the purpose of getting well.

The three different types of health behavior identified above require varying levels of health and medical care. Thus, levels of care vary from care provided by the lay system to that which is provided by either the public health sector or the private sector of the health care system.

The final determinant in this phase of the model focuses on the behavioral processes involved in the seeking of care. More specifically, it examines the activities concerned with acquisition of information relevant to identifying points of access to the health care system as well as learning about the system's unique characteristics and how to use them. Further, it explores the process of seeking, contacting, and selecting a provider in order to gain entry into the system.

Utilization. As the second phase of the health

behavior model, utilization is primarily concerned with the consumption or use of health products and services required to maintain, improve or restore health. It requires matching each level of care with the appropriate delivery units and health care professionals usually associated with the provision of such care. It is also concerned with the unique relationship between the consumer and health care providers, especially as it relates to roles, expectations and decision-making.

Post-utilization. This final phase of the model examines the various behaviors of the consumer following the utilization of the services provided by the health-care system. There are a vast array of activities which take place at this phase of the health behavior process. These behaviors can be clustered into two groups: those involving behavioral changes and those directed toward evaluating the entire process and its component parts.

It should be apparent from the preceding discussion that the area of consumer behavior with respect to health care is broad and complex, involving numerous factors and behavioral processes. Many of these factors and processes have received considerable attention. In fact, McKinlay has emphasized that researchers have been preoccupied with some areas, such as utilization behavior, while excluding the various processes, stages and types of decisions made

in the seeking of medical care.[1]

PROBLEM SETTING

The overview of health behavior presented in the preceding section identifies a number of activities which take place prior to the utilization of health care products and services. One such area relates to the process of seeking care. While this area of health behavior has not been completely ignored, it has not received as much attention as has utilization and post-utilization behavior. A major shortcoming of many studies exploring the decision to seek care is the tendency of researchers to isolate and study differences to those who have or have not decided to seek care. According to Zola,[2] attention is rarely given to how a particular decision is made, what factors or individuals influence the decision-making process, or why one behavior is preferred to another. In general, there have been few attempts to specify the various processes, stages, and types of decisions made in the seeking of care.

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[1]McKinlay, "Some Approaches and Problems in the Study of the Uses of Services-An Overview," p. 126.

[2]Irving K. Zola, "Culture and Symptoms: An Analysis of Patients Presenting Complaints," American Sociological Review 31 (October 1966): 615-630; and Irving K. Zola, "Studying the Decision to See a Doctor," Advances in Psychosomatic Medicine 8 (1972): 216-236.

Instead, researchers have concentrated on the decision to seek care.

With regard to the few attempts made to identify the specific stages in the process of seeking help, there appears to be little agreement among scholars. Consequently, there is a wide variance in the number of stages identified. For example, Mechanic[1] provides an ordered list of ten variables or factors that affect the health-seeking process. This listing tends to be more concerned with identifying factors that affect behavior than their influences on the stages in the process of seeking care. In contrast, Landy[2] identifies seven distinguishable decisions confronting an individual who is seeking help. However, his work focuses on the seeking of case-work help. Another attempt to identify stages in the help-seeking process is based on the decisions to seek psychotherapy. Kaduskin[3] isolates five stages while Woods[4]

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[1]David Mechanic, Medical Sociology, (London: Collier-MacMillan, 1968).

[2]David Landy, "Problems of the Person Seeking Help in Our Culture," in Social Welfare Institutions, ed. M.N. Zald (New York: John Wiley, 1965), pp. 559-574.

[3]C. Kadushin, "Individual Decisions to Undertake Psychotherapy," Administrative Science Quarterly 3 (December 1958): 379-411.

[4]Thomas L. Woods, "The Family as a Consumer of Mental Health Sciences," in Broadening the Concept of Consumer

examines the family rather than the individual as a consumer and identifies six stages in the seeking of psychiatric services. Finally, five stages or decision-making points in the process of seeking care are demarcated by Suchman.[1]

McKinlay[2] makes several observations regarding the status of research on the help-seeking process. First, he believes new theoretical insights as well as new research strategies are needed. Secondly, he sees a special need for detailed empirical information relating to the number of various analytically distinct stages passed through in the process of help-seeking. Finally, he notes that researchers need to determine whether different stages involve different types or orders of decisions; and the extent to which these different orders or types of contingencies or parameters operate to affect decisions within each stage. Clearly, based on the preceding discussion as well as McKinlay's observations, much more research is needed to determine the selection process which an individual goes through in making help-seeking

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Behavior, eds., Gerald Zaltman and Brian Sternthal (Association for Research in Consumer Behavior, 1975), pp. 35-44.

[1]Edward A. Suchman, "Stages of Illness and Medical Care," Journal of Health and Human Behavior 6 (Fall 1965): 114-128.

[2]McKinlay, "Some Approaches and Problems in the Study of the Uses of Services-An Overview," pp. 127-140.

decisions.

Two types of help-seeking behavior, as it relates to health care, have been reported in the literature. One relies on lay referred systems for health care, while the other seeks care from the professional health care delivery system. In some situations one system is used, while the other is excluded. In other situations both systems are utilized. The process of seeking help from the lay referred system is characterized by the following behavior: consumers begin their search for health care help with self-diagnosis and some resultant self-treatment. Next, if self-treatment is not satisfactory, advice and diagnosis is sought from lay persons, such as family members, and then friends. Only when the lay advisors prescriptions prove ineffective do consumers elect to seek help from the second system--the professional health care delivery system.[1]

In the process of seeking health care the lay referred system is often adequate to return the consumer to a state of normalcy. Occasionally health care needs do arise either from social requirements, validation or perceived illness which necessitate professional assistance. Such assistance may be needed to satisfy social requirements,

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[1]Landy, "Problems of the Person Seeking Help in Our Culture," pp. 567-568; and Wortzel, "The Behavior of the Health Care Consumer: A Selective Review, p. 229.

such as insurance and employment physical examinations, routine premarial serologies and immunizations. Similarly, validation needs for physical examinations annually and cancer check-ups typically require professional attention. Finally, perceived ill health, regardless of whether the lay referred system is used, often requires a diagnosis and subsequent treatment that can only be obtained via the professional system.[1]

The process of supplying health care products and services is undertaken within the health care delivery system by designated health professionals. Even though every member of society is a potential consumer,[2] not everyone uses the health care system. Feldstein estimates that only slightly more than one-half of all Americans use the system at least annually.[3] Those who use the system create a variable entry mix consisting of the well, the worried well, the early sick and the sick.[4] Thus, the demand for health care products and services can be characterized as a combined demand which varies according

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[1]Crane, Johnson, Lobl, and Spencer, "The Marketing of Medical Care," p. 179.

[2]Rathmell, Marketing in the Service Sector, p. 170.

[3]Martin S. Feldstein, "The Medical Economy," Scientific American 229 (September 1973), p. 156.

[4]Sidney R. Garfield, "The Delivery of Medical Care," Scientific American 222 (April 1970), p. 19.

to the specific needs of the consumer.

The demand for health care is unique in that it is partially created by consumers and partially by health professionals.[1] To understand the unique nature of demand for health care requires an understanding of the health care system as well as the needs of health care consumers. Consumer initiated demand varies according to an individual's actual and perceived state of health. Hence, there are several levels of health care needs. However, regardless of the level of care demanded, if it requires the services of the health care system, then the consumer must gain access to the system. For the most part, access to the system is gained through a primary care physician.

PROBLEM STATEMENT

Given the preceding discussion which suggests that the physician is the entry point into the health care system, this study focused on the selection of a primary care physician by geographically mobile families. The general research question dealt with how consumers identify, select, and evaluate physicians. Specific questions addressed when the idea of selecting a primary care

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[1]Crane, Johnson, Lobl, and Spencer, "The Marketing of Medical Care," p. 181.

physician occurred; when the actual search began; what circumstances prompted the search; the sources and types of information used in the physician search; and the criteria used in the evaluation of alternatives, and the physician selected.

PURPOSE OF THE STUDY

The purpose of this study was to compare actual physician selection behavior with behavior recommended by health care experts. This was accomplished by first constructing a normative model, generated from a content analysis of the general interest literature, and then examining the behavior of consumers who had recently selected a primary care physician. To facilitate the comparison, both the normative model and the survey instrument used the problem-solving process as an organizing paradigm. In short, the study sought the following information from a sample of geographically mobile consumers:

1. Some demographic data such as sex, income, number and ages of children and adults living at home, home ownership, moving history, previous residence, and degree of familiarity with Fort Worth prior to the move.

2. Whether the family currently had a family physician and how long this person had been the family physician.
3. The circumstances prompting the selection of a physician, when problem recognition occurred, and who in the family was responsible for initiating the process.
4. When and under what conditions did the actual search begin.
5. What kinds of physicians were identified as family physicians, and what sources of information were used to identify candidates.
6. The type and extent of candidate evaluation utilized.
7. The degree of satisfaction with the search and selection process, the information obtained, and the physician selected.

SCOPE OF THE STUDY

Compared to the attention given to consumer behavior for durable and nondurable goods, relatively little attention has been paid to consumer behavior relative to services, particularly health care services. Additionally, much has been written about how people should select a primary care physician, but few studies have evaluated

whether consumers behave in accordance with the prescriptions of health care experts. If physicians are to more effectively market their services to the most appropriated target market they need to recognize how consumers actually make physician selection decisions. Marketing can play a vital role in conveying the information derived from its study of consumer behavior to the appropriate consumer and health care markets.

Compared to the purchase of a product, decision-making in selecting a service is concerned less with whether to purchase than with when and how to purchase. This study was limited to new residents in Fort Worth, Texas who had sought one type of health care: the services of a primary care physician. These new residents made this decision based on a variety of needs, desires and available information. Some made the decision soon after their move while others waited a considerable period of time. For some families, this was a jointly made decision while for others one member assumed primary responsibility.

In short, this study investigated the problem-solving behavior of new residents who had recently attempted to gain entry into the traditional health care system. Asking these consumers to describe this phenomenon provided information about the problem-solving process used by one group of consumers seeking one type of service. The following section highlights the implications of the study.

IMPLICATIONS

The primary goal and anticipated value of this study was to contribute to the understanding of consumer behavior in the health care system by providing information about the ways in which consumers selected a primary care physician. As mentioned, the system by which health care is provided tends to be characterized by uninformed consumers, the lack of a free market, small and fragmented delivery units, non-competitive cost-plus pricing mechanisms and few incentives to contain costs.[1]

Through the study of consumer behavior search processes it is hoped that marketing concepts can be applied to the delivery of health care and that anticipated future changes in the health care system will require effective marketing.[2] Therefore, as the American health care market and its related problems emerge as one of the most important sectors in the economy, it is becoming increasingly important that attempts be made to gain further insights into human behavior and its subset

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[1]Ellwood and Herbert, "Health Care: Should Industry Buy It or Sell It?" p. 99.

[2]John F. Willenborg, Robert A. Fleck and Taylor Sims, "Behavior Patterns and Attitudes of Consumers of Health Care Services--Implications for Marketers of Health Care," in Robert L. King (ed.), Proceedings: Southern Marketing Association 1973 Conference, (Houston, TX: 1973), pp. 216-221.

consumer behavior in health seeking situations.[1]

As marketing continues to grow and develop as a discipline broadening its frontiers and complexity, the need for further knowledge becomes greater especially in the area of consumer behavior for services. Medical care as a service is marketed in a unique manner in that physicians tend to consider themselves healers rather than businessmen and currently they are limited by their professional association in their ability to engage in advertising and other forms of sales promotion. If in the future physicians become more actively engaged in marketing efforts they will need to understand consumer behavior. Essentially, this research should yield new insights into health care behavior by examining one phase of the process and the people involved in such behavior.

Relatively limited theoretical or empirical work has been completed regarding the selection process among new residents. This study has sought to address the sparse research area of selection of services. Thus, little is known about how new residents make high risk decisions such as selecting a primary care physician. Since advertising is limited in the health care field, marketers need to learn new ways to assist consumers make informed decisions.

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[1]Zaltman and Vertinsky, "Health Service Marketing: A Suggested Model," pp. 19-27.

In order to understand the full implications of this study it is helpful to briefly discuss selected characteristics of the mobile population. First, it should be noted that Americans are a nomadic people with approximately twenty percent of the population relocating annually. Of these, about two-thirds move to another residence in the same county, one-sixth to another county in the same state and a final sixth to another residence in a different state.[1] Following the tedious process of moving, mobile families are faced with the difficult task of rebuilding broken supply patterns for goods and services. Thus, for many families a geographical move not only disrupts their previous relationship with the health care system but also confronts them with the problem of establishing new sources of supply for future health care needs.

The highest incidence of mobility is among the 18 to 34-year-old group and is approximately identical for males and females. While the incidence is higher among non-whites, this group is less likely to make a long distance move than are whites. Andreasen[1] found long distance movers to be relatively young, well-educated, of a higher occupational status than the general population, earning an

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[1]Alan R. Andreasen, "Geographic Mobility and Market Segmentation," Journal of Marketing Research, 3 (November 1966): 341-348.

[2]Ibid.

above average income and having previously been geographically mobile.

Movers, in general, have high levels of media exposure with over 60 percent of a sample of 6,000 indicating that they read two or more newspapers regularly.[1] This group also reported turning to friends, neighbors and coworkers for aid in learning about a new community. Mobiles must establish a new, informal network for gaining information especially pertaining to high risk decisions about services to be secured. Bell[2] found that the way mobiles learned about suppliers were classified into three categories: personal sources via face-to-face contact with other people; impersonal or one-way communication sources such as the mass media; and searching via personal observation. Mobiles used these sources in the following order: personal, searching, and impersonal sources.

Feldman and Spencer[3] in studying 147 new families in a metropolitan area of 200,000 found that medical services were selected by 68 families based on personal information gleaned from nonprofessional sources, who were in the same

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[1]Ibid, p. 346

[2]James E. Bell, Jr., "Mobiles--A Neglected Market Segment," Journal of Marketing, 33 (April 1969): 37-44.

[3]Feldman and Spencer, "The Effect of Personal Influence in the Selection of Consumer Services," pp. 440-452.

age category, married, of the same sex and had approximately the same income. Wives assumed responsibility twice as often as husbands for securing information about physician and dentists services. Specifically, medical care decisions rested in the hands of the wife 74 percent of the time, with the husband 11 percent and were jointly made 15 percent of the time. Families having joint responsibility tended to be married for more than five years. Mobiles also tended to rapidly rebuild sources of supply taking from 6.9 weeks to select a specialist to 7.3 weeks for a general practitioner.[1]

As mentioned, the selection of a primary care physician is typically a high risk decision. For this reason, consumers tend to carry out an extensive information seeking activity.[2] And, the selection of new suppliers is influenced by the family's previous experience.[3]

Historically, consumer behavior research has primarily

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[1]Bell, "Mobiles--A Neglected Market Segment," pp. 37-44.

[2]Michael H. Halbert, "A Study of How New Families Learn About the Market," in On Knowing the Consumer, ed. Joseph W. Newman (New York: John Wiley and Sons, Inc., 1964).

[3]James E. Bell, Jr., Selection of New Suppliers by the Mobile Family, (East Lansing, MI: MSU Business Studies, 1969).

addressed the decision process used by families in purchasing goods. However, the nature of services have led to variations in the application of marketing concepts when compared to products. For example, since services cannot typically be displayed and they are often difficult to demonstrate the communication strategies used in marketing them no doubt differs from those for products.[1] Also, the more personal nature of services compared to products necessitates different consumer behavior patterns. Thus, it is important to study the selection process in order to discover the mechanisms that govern behavior.

An intensive study of consumer decision-making can demonstrate that consumer behavior for selected types of services such as physician choice is not the same as that used for products and other types of services. In addition, such a study fills a gap in the broadened concept of marketing and consumer behavior while simultaneously providing health care planners and policy-makers with vital information. Lastly, such a study provides key information for developing a better understanding of the contemporary health care system.

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[1]Green, Laneard, Favell, "Innovations in the Service Sector: Some Empirical Findings," pp. 323-326.

LIMITATIONS OF THE STUDY

As with any study, certain limitations existed which influenced the study's generalizability to the total population of health care consumers. Specifically, the study was limited to one metropolitan area and only families moving into the area during a specified period of time. In addition, the list of families for inclusion in the study was obtained from an anonymous organization and a public utility. Hence, the study was to some extent limited by the completeness of the lists maintained by the cooperating organizations.

Also, data were collected via a self-administered mail out questionnaire. According to Granbois and Engel[1] the most common, yet often the least satisfactory method of data collection - the cross sectional analysis of a single sample was used in this study. They argue that all survey research holds the potential for response bias and error. Response errors are often due to errors in reporting past behavior due to either memory decay or motivated forgetting. Memory decay is characterized by a sharp drop followed by a leveling off. Remembering is increased if

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[1]Donald H. Granbois and James F. Engel, "The Longitudinal Approach to Studying Marketing Behavior," in Marketing and Economic Development, ed. Peter D. Bennett (Chicago: American Marketing Association, 1965): 440-452.

the event is either important or positive to the person. Interestingly, isolated events tend to be recalled more readily than those of a repetitive nature. Additionally, the influence of recent events may distort the recall of earlier events. In contrast, motivated forgetting tends to take one of several forms: diminished recall of ideas inconsistent with important values or attitudes, selective recall of dissonant information and defensive memory distortion.

ORGANIZATION PLAN

This chapter has provided an introduction to the problem investigated by this dissertation. Chapter II reviews the literature relevant to consumer behavior, and provides the theoretical framework for the research paradigm used in this study. Chapter III presents an overview of health care behavior and then describes in detail the normative model that was developed from the general interest periodical literature. Chapter IV identifies the premises, research questions, and hypotheses used to test the normative model. Chapter V outlines the methodology used in this dissertation. Chapter VI presents the results of the data analysis. And, Chapter VII summarizes the work done in this study and concludes with several observations regarding the implications of this research.

CHAPTER II

REVIEW OF THE CONSUMER BEHAVIOR LITERATURE

From a substantive perspective, the major focus of the present study is on the selection of a primary care physician by geographically mobile families after completing a change of residence. From a theoretical perspective, the focus of the study is on one aspect of the exchange process in a non-traditional setting, and the determination of its correspondence to exchange processes that occur in traditional contexts. The study concentrates on the process by which mobile families establish sources of supply for services in a market setting where most forms of promotion are absent. More specifically, the objective of this research is to identify and examine the stages as well as the factors involved in the process of selecting both medical care and preventive health care services.

The study of consumer behavior is an intriguing and immensely complex field of inquiry, impressive in the amount of detailed knowledge encompassed within its area. Unfortunately, the field does not represent a coherent and

unified body of knowledge. Instead, it is made up of a number of competing disciplines, which vary with regard to the aspects of consumer behavior studied as well as the levels of aggregation.

Consumers can be studied at highly aggregated levels such as the total economy or at low levels of aggregation such as the household or the individual. Within the various levels of aggregation there are a variety of theoretical perspectives from which consumer behavior can be approached.

At the low level of aggregation, for example, the field of consumer behavior explores both the how and why of distinct, yet interrelated phases of the consumption process: pre-purchase, purchase, and post-purchase behavior. The pre-purchase phase is primarily concerned with the cognitive processes of need awareness, acquisition of information, and alternative evaluation. In contrast, the purchase phase focuses on activities such as product and service selection, as well as brand and store choice. Finally, the post-purchase phase includes both utilization behavior and evaluation of the entire process.

Hence, the field of consumer behavior is complex, not only because of the varying levels of aggregation and aspects that can be studied but also because of the various competing theoretical perspectives that can be used in approaching the subject. Each theoretical perspective has

different underlying assumptions and each has inherent advantages and disadvantages. For these reasons the research framework must be supplied by the researcher.

Given the complexity of the field, it is obvious that a comprehensive exploration and assessment of all ramifications of consumer behavior is not possible within the confines of a single chapter, if indeed it is possible at all. Therefore, the major objective of this chapter is to discuss the theoretical approach and the supportive research evidence which served as the organizing paradigm for the research model used in the present study.

In the two sections which follow, terminology frequently encountered in the literature is defined, and premises regarding the behavior of consumers are discussed. In the final section, the specific approach which provided the organizing paradigm is presented.

DEFINITION OF TERMS

Consumers and their activities are referred to in a substantial proportion of the marketing literature. Not suprisingly, there are considerable differences of opinion surrounding the meaning and use of certain terms or concepts. Thus, it seems appropriate, at this juncture, to make some distinctions between several terms that are relevant to this study.

Consumers refers here to people living in private households. This restriction excludes industrial and institutional consumers who generally buy goods and services for resale or for use in making some product or service. However, this restriction still leaves open the specific consumer unit within the household. Thus, the unit under consideration is determined by the type of activity. For some puposes the unit is the individual, while for other purposes the unit is the family or other organizational unit of private individuals.

Almost all writers on the subject of consumer behavior have their own views about what the term should include, as well as how it should be defined. To some scholars, it is the act or set of actions resulting from a decision process. Others look upon consumer behavior as being synonymous with consumer decision-making.

As noted in Chapter I, the traditional focus of consumer behavior has been on the interaction of the consumer with the offerings of the private sector of the economy. However, in order to be consistent with the broadened scope of marketing, a more global view of consumer behavior is taken here. More specifically, consumer behavior is the mental and physical acts of an individual or consumer unit involved in the acquisition and use of goods and services from both the private and the public sector.

This definiton encompasses a host of complex activities and actions, several which require further delineation. Implicit in the definition of consumer behavior are buying behavior, consumption behavior, and decision-making.

Buying behavior is frequently used in two different ways in the literature. Some writers use it to designate the behavior of all buyers, which includes institutional and organizational buyers as well as the ultimate consumer. More frequently, however, the term is used to describe the behavior of the ultimate consumer. This more restrictive designation is used here. Thus, buyer behavior is defined as the acts of an individual or consumer unit involved in the acquisition of goods and services from both the private and public sector. This behavior includes both shopping behavior and the exchange process as well as the processes that determine these acts.

Included in the definition of buying behavior is the act of purchasing, which is the act of procuring a good or service. Purchasing is only one stage or point in the buying process. Moreover, purchasing may be performed by the consumer or user, or it may be performed for the consumer or user. Thus, the purchaser is a customer not necessarily a consumer.

Consumption behavior refers to the use of a product or service. It is an important part of the total consumer

behavior process because subsequent purchases are frequently influenced by previous consumption. Moreover, consumption does not always occur when a purchase is made, instead it may be postponed until some future time. Many products are not consumed in a single use but remain available for continued use over a period of time.

The final activity implicit in the definition of consumer behavior is decision-making. As noted earlier, some scholars look upon consumer decision-making as being synonymous with consumer behavior. An alternate view is that decision-making takes place at many points during the entire process of consumer behavior. This is the perspective taken here. Thus, decision-making is defined as the behavioral process of choosing among alternatives.

BASIC PREMISES OF CONSUMER BEHAVIOR

Given the preceding definition of terms, it seems appropriate at this juncture to introduce several basic but critical premises regarding the behavior of consumers.

Consumer Behavior is Human Behavior

First, and perhaps the most obvious premise, consumer behavior is a subset of human behavior. Since consumers are humans and their behavior is obviously a reflection of

their human qualities, it follows that consumer behavior is merely one facet of human behavior. The basic processes that influence and determine consumer behavior are those that also influence and determine behavior in all other areas of human activity. Viewed in this context, it is obvious that there is no clear-cut division of human activities.[1]

Much human consumption of goods and services is part and parcel of many activities that are not primarily economic in nature. That being the case, it is clear that the study of consumer behavior cannot proceed independently of a broader study of human behavior. Thus, it is not surprising that scholars of consumer behavior frequently borrow concepts and methods from the behavioral sciences.[2]

Consumer Behavior Interdisciplinary

There is no single science of human behavior. Likewise, there is no single way to approach the study of human

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[1]James A. Constantin, Rodney E. Evans, and Malcolm L. Morris, Marketing Strategy and Management, (Dallas, TX: Business Publications, Inc., 1976), p. 161; and Fred D. Reynolds and William D. Wells, Consumer Behavior, (New York: McGraw-Hill Book Company, 1977), p. 27.

[2]Ibid

behavior in general or consumer behavior in particular. Consequently, current attempts to understand consumer behavior rest on many theoretical foundations.[1]

The study of consumer behavior is based upon theories, concepts, and methodologies borrowed from such disciplines as economics, statistics, sociology, psychology, social psychology, and cultural anthropology. This interdisciplinary nature of consumer behavior is perhaps its greatest strength because it recognizes the fact that the consumer is a biopsychosociological being affected by many diverse and ambiguous stimuli. Moreover, the interdisciplinary nature of consumer behavior serves to integrate existing knowledge, from disciplines concerned with man's behavior into a comprehensive body of information.[2]

Consumer Behavior is Dynamic Problem-Solving Behavior

As human beings, consumers are constantly active, in a near-constant state of arousal because their existence confronts them with the necessity to seek satisfaction,

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[1]Rom J. Markin, Jr., Consumer Behavior: A Cognitive Orientation, (New York: Macmillan Publishing Co., Inc., 1974), p 55; and Thomas S. Robertson, Consumer Behavior, (Glenview, IL: Scott, Foresman and Company, 1970), p. 1.

[2]Ibid.

success, and survival. To exist is to have problems. A problem may involve a physical want or a psychical desire. To have problems creates a need to find solutions. Thus, consumers are problem-solvers.[1]

If consumers are viewed as being problem-solvers, then, their behavior can be characterized by a process consisting of several stages: (1) problem recognition; (2) acquisition and processing of information; (3) identification and evaluation of alternatives; (4) selection from among alternatives; and (5) post-selection evaluation.[2] This problem-solving premise is based upon several important assumptions.

First, it is assumed that prior to problem recognition, the individual is in a state of equilibrium. It is also assumed that problems may originate from either within the individual or from the external environment. In addition, it is assumed that problem-solving behavior is goal-oriented, and the problem-solver is capable of developing a plan for achieving this goal. Consumers usually have the general goal of creating and maintaining a set or an assortment of goods and services that provides current and

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[1]Markin, Consumer Behavior, p. 54.

[2]E. Jerome McCarthy, Essentials of Marketing, (Homewood, IL: Richard D. Irwin, Inc., 1979), p. 121

future satisfaction.[1]

Another critical assumption is that consumers solve problems based on the strength of what they know, or think they know, about them. In this sense information about alternatives becomes a critical factor in the choice process. It not only determines which alternatives they perceive but also determines how they perceive them. A key issue relative to information concerns the fact that consumers will often go through the problem-solving process without considering all the information known or available about the situation to which they are responding. The critical point regarding this issue is that consumers behave in terms of their perception of the situation.[2]

A final observation about problem-solving behavior is that consumers can use many variations of the problem-solving process, ranging from highly routine to extremely extensive.[3] Some scholars argue that problem-solving behavior is a relatively rare occurrence, and that most of consumer behavior is habitual behavior. According to these scholars, the consumer only engages in problem-solving as a deviation from habitual behavior under the impact of strong

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[1]Constantin, Evans, and Morris, Marketing, p. 162.

[2]Reynolds and Wells, Consumer Behavior, p. 31.

[3]Constantin, Evans, and Morris, Marketing, p. 163.

motivational forces and new events.[1]

In contrast, other scholars argue that habitual behavior is merely a shortened form of problem-solving behavior. According to these scholars, habitual or routine behavior and extensive problem-solving behavior are polar ends of the same continuum. Hence, some problems are solved through mental processes that are near the routine end of the continuum, others require more extensive mental effort.[2]

In sum, it is reasonable to assume that consumer behavior is, by and large, problem-solving behavior, whether extended or routine. The form of problem-solving will be determined by the nature of the problems, the situation, and the experiences as well as the intentions of the individual.[3]

Consumer Behavior is Rational Behavior

The fourth and final premise posits that consumers are

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[1]George Katona, The Powerful Consumer: Psychological Studies of the American Economy, (New York: McGraw-Hill Book Company, Inc., 1960), pp. 139-140.

[2]James F. Engel, Roger D. Blackwell, and David T. Kollat, Consumer Behavior, 3d ed., (Hinsdale, IL: The Dryden Press, 1978), pp. 31-33.

[3]Constantin, Evans, and Morris, Marketing, p. 162.

rational problem-solvers. The issue of rationality has been the topic of considerable controversy among scholars. Essentially, the debate centers on the meaning of rational behavior.[1]

Part of the confusion is deeply rooted in traditional economic theory, which deduces the properties of the economic system from several general simplifying assumptions about human behavior. The classical position holds that consumers make choices and purchasing decisions solely on the basis of rational self-interest and carefully considered economic motivations. The concept rests on an assumption that a consumer possesses a finite system of resources, but maintains an infinite body of desires and needs. To behave rationally, in the economic sense, implies that people are characterized as all-knowing, omniscient, hedonistic calculators who are able to perceive their needs correctly, measure these needs against their resources, and demonstrate an awareness of all available products and services. This concept also assumes that people are capable of correctly ranking each alternative in terms of its benefits and disadvantages, and that they are able to identify and choose the one best alternative.[2]

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[1]Ibid., p. 164.

[2]Harold W. Berkman and Christopher C. Gilson, Consumer Behavior: Concepts and Strategies, (Encino, CA: Dickinson

The assumption that economic behavior consists of a steady flow of rational calculations, while useful in developing economic theory, has created much confusion. For example, the requirement that man possess perfect knowledge in order to make rational choices has led some scholars to conclude that since no man is omniscient, imperfect knowledge must mean imperfect rationality, or even irrationality. Both of these views regarding rationality are of limited value to understanding consumer behavior. A more reasonable view of rationality is one that accounts for the fact that consumers frequently do not possess sufficient information about available products and services to make perfect decisions.

Wroe Alderson provides one such explanation, which views rational behavior as a unique human mode of adaptive behavior.[1] According to Alderson, perfect rationality, as described by economic theory, is not available in human affairs.[2] Consequently, consumer buying problems arise

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Publishing Company, Inc., 1978), p. 26; Markin, Consumer Behavior, p. 59; and Schiffman and Kanuk, Consumer Behavior, p. 434.

[1]Wroe Alderson, "Major Issues in Motivation Research," in Marketing's Role in Scientific Management, ed. Robert L. Clewett (Chicago: American Marketing Association, 1957), pp. 271-272.

[2]Ibid., p. 272.

from uncertainty as to the best course of action to pursue in a purchasing situation. The solution of a buying problem is "to reduce uncertainty to the point where a course of action can be adopted with some confidence."[1] In this process, "the problem solver is trying to see the essential structure of a complicated situation and trying to make the best gamble in being prepared for future requirements which are subject to chance variations."[2]

To Alderson, a clear distinction between the consumer and the consumer-purchaser is needed to understand the concept of rationality. He contends, individual action in the market is most characteristically action on behalf of some group in which the individual holds membership.[3] According to Alderson, "the consumer buyer is very often acting as a purchasing agent for a household."[4] He views the household as a basic type of organized behavior system

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[1]Wroe Alderson, Marketing Behavior and Executive Action: A Functionalist Approach to Marketing Theory, (Homewood, IL: Richard D. Irwin, Inc., 1957), p. 167.

[2]Ibid.

[3]Wroe Alderson, "The Analytical Framework for Marketing," in Perspectives in Marketing Theory, eds., Jerome B. Kernan and Montrose S. Sommers (New York: Appleton - Century -Crofts, 1968), p. 72.

[4]Alderson, "Major Issues in Motivation Research," p. 276.

that persists over time because of its expectations concerning future behavior.[1] While it is the household which consumes goods and services, it is the behavior of the consumer-purchaser which is most directly relevant to the issue of rational behavior because the consumer-purchaser enters the market to assemble, replenish, or extend the assortment of goods and services needed to meet the anticipated patterns of future behavior.[2]

Since most purchases are made to provide for consumption at some future time, the consumer-purchasing agent is in a different frame of mind than the consumer-user. According to Alderson, the consumer-buyer enters the market as a problem-solver whose problem is to adjust the flow of goods and services to present and prospective needs of the family unit.[3] For Alderson, the procurement of desired items by one individual introduces overall considerations of rationality into the purchasing process.[4] However, he

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[1]Wroe Alderson, Dynamic Marketing Behavior, (Homewood, IL: Richard D. Irwin, Inc., 1965), p. 37.

[2]Ibid., p. 144.

[3]Alderson, "The Analytical Framework for Marketing," p. 71; and Alderson, Marketing Behavior and Executive Action, p. 166.

[4]Alderson, Dynamic Marketing Behavior, p. 145.

does not characterize the behavior of the consumer-purchaser as a completely rational problem-solver because solving a problem on behalf of a household means reaching a decision in the face of uncertainity.[1]

Alderson further contends that consumer-purchasers are conscious of the notion of performance in regard to their role as purchasing agents. He claims "the desire and ability to improve are clearly in evidence."[2] The rational buyer must weigh each purchase against an anticipated pattern of behavior. Not only does the consumer-purchaser attack existing problems rationally, but "rationality is exhibited in ability to learn from experience and adopt new methods."[3] Rational behavior is also exhibited in its choice of issues and in its application to the significant rather than the trivial.[4]

By drawing a distinction between buying and consumption, Alderson argues that the issue of habit and impulse can be explained away. Buying habits can be broken overnight with no real disruption of living patterns. In contrast, consuming habits are part of the living patterns.

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[1]Alderson, "The Analytical Framework for Marketing," pp. 71-72.

[2]Alderson, Marketing Behavior and Executive Action, p. 166.

[3]Ibid., p. 165.

[4]Ibid., p. 166.

To Alderson, habitual buying patterns are "deliberately chosen routines designed to save time and energy for rational consideration of more important matters."[1]

Thus, Alderson takes the viewpoint that consumer purchasing decisions are the consequence of rational considerations in the fitting of alternative goods and services to consumption goals. Incomplete information as to ends and means injects many uncertainties into the process, and the decision maker may have to make do with gross approximations. Nevertheless, rational, purposive action prevails, though clouded by uncertainty.

In sum, the essence of the rationality premise is that consumers do not necessarily make a concerted effort to seek an optimum choice, in the economic sense. Instead, given the limited resources of time, money, and energy, they perceive and select a number of possible outcomes from the available strategies that, in light of their own goals and decision criteria, are satisfactory solutions to their problems. This means they will occasionally make decisions that appear to be foolish when viewed by an objective observer. It also means they will make decisions at one point of time that may not be the best at a later date. Nevertheless, the pattern of interpretation that consumers

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[1]Ibid.

build for themselves is the basis for their action.[1] Thus, the underlying assumption of this premise is that consumer behavior is rational, no matter how impulsive or nonrational it may appear. Since the rationality of any decision is relevant only in the context of the situation facing the individual, it might be more appropriately characterized as bounded rationality.[2]

As mentioned, the study of consumer behavior is interdisciplinary and rests upon many theoretical foundations. Until recently, however, the field has been somewhat fragmented in orientation. Early in its development the focal point was aggregate market behavior; over time this focus shifted to individual buyer behavior. One outcome of this shift was the attention given to deductive model building, which was eventually supplanted with inductive model building. In short, the consumer behavior discipline has witnessed an evolution which started with borrowing theories and models from the behavioral sciences and moved to the construction of integrative-comprehensive models.

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[1]Markin, Consumer Behavior, p. 83; and Reynolds and Wells, Consumer Behavior, p. 31.

[2]Constantin, Evans, and Morris, Marketing, p. 164; Markin, Consumer Behavior, p. 83; and Reynolds and Wells, Consumer Behavior, p. 21.

Since models and model building are an integral part of the study of consumer behavior, these topics are discussed in the next section.

MODELS AND MODEL BUILDING

The systematic inquiry and analysis of most phenomena is enormously complex; the study of human beings is no exception. In fact, of all the phenomena which could be studied, human behavior is probably the most complex, difficult and unpredictable. Because human behavior is complex, most researchers have certain intuitive and preconceived notions regarding the basic nature of people. These notions have been descriptively called mental models or images.[1]

Human beings are image builders by nature. In order to deal with the complexity of the real world, people build mental models about that part of reality which is relevant to the situation, and this is accomplished through abstraction. The mental model is a simplification of the situation it portrays, consisting of only a few incomplete and abstract concepts which are put together to form a

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[1]Arthur J. Kover, "Models of Man as Defined by Marketing Research," Journal of Marketing Research 4(May 1967): 129.

meaningful image of reality. Because these thought patterns have the form of a language, they can be communicated and described to others. Thus, thoughts about any situation or phenomenon are only abstractions from reality.[1]

The real value of mental models comes precisely from their not corresponding to the complexity of a phenomenon. Instead, they focus on the details that are of greatest relevance to the situation, providing an ordered view or perspective of the real world. Hence, by building images people are able to understand and describe, explain, or predict the realities of a phenomenon; they can visualize past and future situations, whether or not they are part of actual experience.[2]

Not all phenomena can be understood by the use of mental images. This is particularly true of human behavior. In addition to images, there are other types of models that are used in the systematic inquiry and analysis of behavior. All of these models are abstractions of a few kinds of behavior or needs which are limited enough to describe. These abstract models of human behavior all have one common characteristic, that is, they describe some

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[1]Markin, Consumer Behavior, pp. 7879.

[2]Ibid., pp. 57-58.

basic behavior, need or situation.[1]

Models Versus Theories

The term model is often used as though it were synonymous with the word theory. Even though many authors use the terms interchangeably, a distinction is drawn between the terms here. Theories and models share certain common characteristics in attempting to provide a coherent and systematic structure for a field of study. Both theories and models involve postulating key variables, specifying relationships among variables, and indicating change within the variables as well as in their interrelationships over time.[2]

Although models and theories share several commonalities, they are not synonymous. Theories are a subset of models. Since theories purport to represent some aspects of real-world phenomena, all theories are models. However, a model is not itself alway a theory, since many models do

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[1]Kover, "Models of Man as Defined by Marketing Research," p. 129.

[2]J.A. Lunn, "Consumer Decision-Process Models," in Models of Buyer Behavior, ed. Jagdish N. Sheth (New York: Harper and Row, Publisher, 1974), pp. 39-40.

not have all the requisites of theoretical constructions.[1]

Some models are potential theories, describing the body of basic and substantive knowledge in a field. Other models represent a particular construction, using theory that is designed to serve an instrumental purpose. When data are measured and mapped into a model, it may then become a theory. The acceptance or rejection of a theory is based on how well it works. In contrast, models are right or wrong on logical grounds only; they need only be internally consistent.[2]

The preceding discussion suggests that models and theories are closely related. Similarly, there is a close relationship among assumptions and hypotheses with models and theories. More specifically, assumptions are employed in the construction of a model on which a theory is founded. Within the framework of the theory certain hypotheses are tested. It should be noted that while the hypotheses should be tested, the assumptions of the model need not be subjected to tests. However, it is possible

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[1]Shelby D. Hunt, Marketing Theory: Conceptual Foundations of Research in Marketing, (Columbus, OH: Grid, Inc., 1976), p. 26.

[2]Philip Kotler, Marketing Management: Analysis, Planning and Control, 2nd ed., (Englewood Cliffs, NJ: Prentice-Hall, 1972). p. 335; and William Lazer, "The Role of Models in Marketing," Journal of Marketing 26(April 1962):13.

that the assumptions of one model may become the hypotheses of a theory.[1]

In view of the distinction set forth between models and theories, the discussion which follows provides a definition and classification of models. Further, the model building process is described, and the advantages as well as the disadvantages of models are reviewed.

Models Defined

Most scholars agree that a model is any structure which purports to represent something else.[2] There are, however, differences as to the precision which must be applied to the representation. One author defines a model as "simply the perception or diagramming of a complex or a system."[3] A more rigorous definition considers a model "the specification of a set of variables and their interrelationships designed to represent some real system or process, in whole or in part."[4]

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[1]Lazer, "The Role of Models in Marketing," p. 13.

[2]Hunt, Marketing Theory, p. 25

[3]Lazer, "The Role of Models in Marketing," p. 9.

[4]Philip Kotler, Marketing Management: Analysis, Planning and Control, 4th ed., (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1980) p. 618.

Regardless of the definition, models are nothing more than replicas of the phenomena they are intended to represent. Models are abstractions of reality; they are images or reproductions of something. Some models are simple, whereas others are complex. Invariably, however, all models have one central purpose and that is to enable people to understand complex phenomena and processes.[1]

Not only are models generally useful in the pursuit of knowledge and understanding of complex phenomena, but they also serve a variety of other purposes. Models are often used to convey vast amounts of information. They can do this when they are presented in an abbreviated form of a larger configuration. Models are frequently used to observe and measure the interaction of variables. Further, models provide a means of determining which variables are more important than others. Finally, by identifying the most relevant variables and by observing and measuring the interaction of these variables, a deeper and fuller understanding of the pheonomenon is gained.[2]

Models are a necessary requisite for theory construction providing the assumptions on which theories are

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[1]Markin, Consumer Behavior, pp. 78-79.

[2]Ibid., p. 79.

founded. However, many models are not designed or used for this purpose. Therefore, in order to more fully understand the nature of models, they need to be classified.

Classification of Models

The classification of models is difficult because of their multidimensional nature. Consequently, any model can be classified and described in several ways. In addition, the task of categorizing models is further complicated by the lack of a uniform set of terms. A comprehensive review of the literature revealed a considerable variety in the terminology used to distinguish among various types of models. Obviously, when a number of different terms are used to describe the same type of model, the result is often confusion rather than clarification. In the classification scheme which follows, the basic types of models are identified, and where possible synonomous terms are noted.

Models Classified by Level of Abstraction. Models are frequently described according to either their level of abstraction and manner of presentation or their purpose.[1]

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[1]Kotler, Marketing Managment 4ed., p. 618; Lazer, "The Role of Models in Marketing," p. 12; and C. Glenn Walters, Consumer Behavior: Theory and Practice, 3rd ed. (Homewood, IL: Richard D. Irwin, Inc., 1978); p. 44.

When models are classified according to their level of abstraction and manner of presentation, they are arranged along a continuum, as shown in Figure 2.1, with mental images at one polar end and physical models at the other. Mental models represent the highest degree of abstraction in that they are images which usually consist of only a few incomplete and abstract concepts. In contrast to the pure abstraction of mental images, physical models are the most specific and concrete; they are replicas of their real-life counterparts. Positioned between pure mental models and physical models are symbolic models. Hence, by starting with physical models and moving toward mental models, all models can be positioned on a continuum in which the manner of presentation becomes increasingly more abstract.

Some physical models are iconic in that they look like what it is they are supposed to represent. Iconic models can be exact replicas of the thing they are designed to represent or they can be scaled. An example of an exact replica is a flight training simulator, which is designed to duplicate its real-life counterpart. When the dimensions of a model are smaller than those it is designed to replicate, the model is scaled down. For example, aeronautical engineers frequently build miniature models of airplanes to be tested in a wind tunnel. Other examples of scaled down models are imitations of the solar system, models of buildings and globes representing the earth.

FIGURE 2.1: Models: Classified as to Level of Abstraction

Mental Image Models	Symbolic Models	Physical Models
(Highly abstract)		(Concrete, specific replicas)

When a model is scaled up, it is larger than the phenomenon it is designed to replicate. An enlarged model of the biological structure of a cell is an example of a scaled up model.[1]

When a physical model ceases to look like its real-life counterpart and becomes more abstract, it is no longer called an iconic model; instead, it is referred to as an analogue model, which uses one set of properties to represent another set of properties. For example, maps are analogue models because they use various colors, shapes,

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[1]Hunt, Marketing Theory, p. 25; and Walters, Consumer Behavior, p. 44.

and symbols to represent specific physical properties, such as water, mountains, railroads, highways and so on. Another type of analogue model is the graph, which is a pictorial or diagrammatic description of a phenomenon.[1]

When a model no longer has physical form and takes on a higher level of abstraction, it is called a symbolic model. These models differ from analogues in that they use a standard language. Symbolic models may be either verbal or quantitative. Verbal models are written or spoken in a standard language, such as English. For example, a poem is a verbal model that uses words to represent a phenomenon. A verbal model can be thought of as a prose description of a mental model. Quantitative models are more precise and are written in the language of mathematics. There are various types of quantitative models, some are relatively simple, others are extremely complex.[2]

In the preceding classification, models are arrayed along a continuum according to their level of abstraction and manner of presentation. As shown in Figure 2.2, mental

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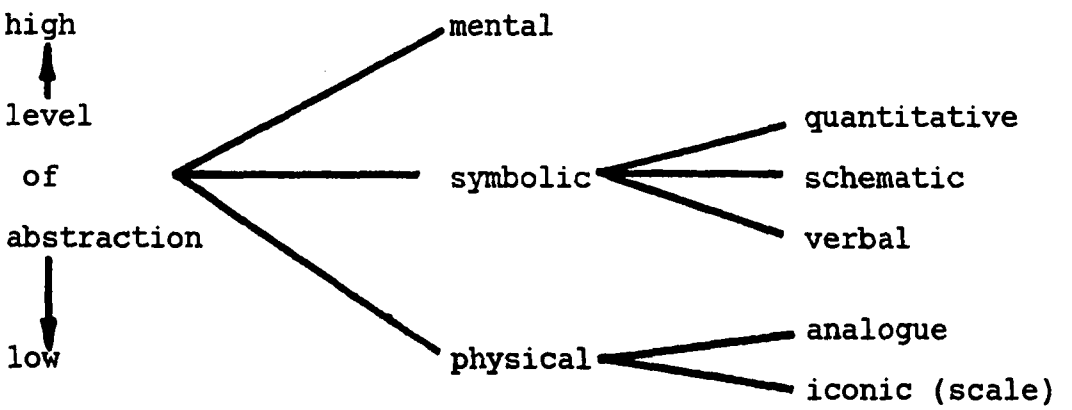
[1]Hunt, Marketing Theory, pp. 25-26; Kotler, Marketing Management, 4th ed., pp. 623-625; and William F. Massey and Jim D. Savvas, "Logical Flow Models for Marketing Analysis," Journal of Marketing 28(July 1964):31.

[2]Hunt, Marketing Theory, pp. 25-26; Kotler, Marketing Management, 4th ed., pp. 623-626; Lazer, "The Role of Models in Marketing," p. 12; and Walters, Consumer Behavior, p. 44.

images are the highest level of abstractions; verbal and quantitative models are considered to be symbolic models; and analogue and iconic models are considered to be physical models. It should be noted that this classification scheme only represents one way of viewing and distinguishing between various type of models. Moreover, it could be argued that some of the distinctions are more imagined than real. For example, graphs were considered to be analogue models, it could be argued that graphs are more symbolic than analogous. Regardless of where a specific type of model is placed on the continuum, there does appear to be a logical arrangement, based on the level of abstraction and manner of presentation.

FIGURE 2.2: Classification of Models According to Levels of Abstraction and Including Sub-Categories



Models Classified by Purpose. Not only can models be distinguished from one another on the basis of modeling technique, but one model can be contrasted with another by considering its purpose. In fact, the purpose of the model may often dictate the level of abstraction as well as the manner of presentation. The intent of the model brings into focus a variety of factors, as shown in Table 2.1, that have been used to distinguish various types of models.

First, models are often classified as being either physical or behavioral. This distinction is based on whether the purpose of the model is to replicate the structure of the phenomenon or to duplicate its performance. A similar distinction is made between models that are either static or dynamic. The purpose of a static model is to portray a phenomenon at one point in time. While change can be demonstrated by using several static models, each representing different points in time, the process of change is not portrayed. In contrast, dynamic models emphasize the processes by which the change occurs.[1]

Since models can be built at various levels of detail and complexity, another way of distinguishing among them is

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[1]Lazer, "The Role of Models in Marketing, p. 12; Markin, Consumer Behavior, p. 85; Massey and Savvas, "Logical Flow Models for Marketing Analysis," p. 30, Walters, Consumer Behavior, pp. 44-45.

Table 2.1: Classification of Models According to Purpose

Category	Sub-Category	Purpose
Physical		Represent structure
vs.		
Behavioral		Depict performance
or		
Static		Portray phenomenon at a given point in time
vs.		
Dynamic		Show time as an independent variable
or		
Micro		Focus on individual units and detailed linkages between variables
vs.		
Macro		Use varying levels of aggregation and gross relationships between variables
or		
Partial		Limited to a few variables, developed in detail
vs.		
Comprehensive		Identify many variables, developed in detailed or linked with gross relationships
or		

(continued)

Table 2.1 (Continued)

Category	Sub-Category	Purpose
Descriptive		Describe things as they are or as they act
	Communicative	Describe structural arrangement
	Explanatory	Describe causal relationships
	Predictive	Forecast future behavior or events
vs.		
Decision		Find problem solutions
	Optimization	Find best solution
	Heuristic	Find a satisfactory solution

based on whether they are macro or micro models. The purpose of macro models is to postulate two or more variables and link them with a gross set of relationships without explaining the specific mechanisms operating within each variable. In contrast, the purpose of micro models is to postulate more detailed linkages between dependent and independent variables. Closely associated with macro and micro models are comprehensive and partial models. While these terms are occasionally used interchangeably, there appears to be a substantive difference between them. More specifically, a comprehensive model would attempt to identify and relate most or all of the variables involved in a phenomenon. These variables can be linked with a gross set of relationships, as in the case with macro models, or the variables can be linked with more detailed relationships, as in the case with micro models. Whereas comprehensive models attempts to identify most of the variables, partial models are limited to a few variables, but these variables are developed in detail. Once again this may take place in either a macro or a micro model.[1]

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[1]Kotler, Marketing Management 4th ed., p. 618; Lazer, The Role of Models in Marketing," p. 12; Markin, Consumer Behavior, p. 85; Massey and Savvas, "Logical Flow Models for Marketing Analysis," p. 30; and Walters, Consumer Behavior, pp. 44-45.

Another way of classifying models, according to their purpose, is based on the distinction between descriptive and decision models. This distinction is frequently noted in the literature, however, it often employs a variety of terms to differentiate between descriptive and decision models as defined in this chaper. For example, descriptive models have been referred to as positive, systems, behavioral, empirical, and concrete models. Similarly, synonyms such as analytical, normative, goals, optimization, theoretical, and hypothetical are often used to refer to decision models.[1]

The general purpose of descriptive models is to describe things either as they are or as they work. Descriptive models can be broken down into three subgroups: communicative, explanatory, and predictive models. A communicative model has as its purpose the description of the structural arrangement of the various elements or components in a system. An explanatory model is used to describe the causal relationships among the elements in a system. The purpose of a predictive model is to assert or describe the causal relationship among the elements in a system before the events take place. Hence, descriptive

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[1]Ibid.

models serve the purpose of either communicating, explaining, or predicting some phenomenon.[1]

In contrast to descriptive models, the purpose of decision models is to propose how things should be. Decision models can be grouped into two categories: optimization models and heuristic models. Optimization models have computational routines for finding the best solution to a stated problem. Examples of optimization models are differential calculus, mathematical programming, statistical decision theory, and game theory. Heuristic models are designed to evaluate alternative outcomes associated with different decisions and to find the best decision when computational routines are not available. Heuristic models are often referred to as rules of thumb.[2]

In the preceding classification, models are categorized according to their purpose, in terms of a series of descriptive adjectives. More specifically, models were classified as being physical or behavioral, static or dynamic, macro or micro, comprehensive or partial, and descriptive or decision. By using one or more sets of adjectives, any model can be described in terms of its

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[1]Kotler, Marketing Management 4th ed., p. 618-620; and Walters, Consumer Behavior, p. 44.

[2]Ibid., pp. 620-623.

purpose. If both classification schemes (level of abstraction and manner of presentation, and purpose) are combined, a relatively comprehensive means of classifying models is developed.

Model Building

Phenomenon can be modeled in a variety of ways. Each of the models could be built at the same level of abstraction but differ with regard to the aspects of the phenomenon which are included and excluded. The determination of which factors to include and which to exclude clearly depends on the use to which the model is put. Not only can the same phenomenon be represented with different models at the same level of abstraction, but it can also be represented with different models built at different levels of abstraction. Clearly, the level of abstraction is often influenced by the purpose of the model. While the purpose of a model is an important influential factor, the phenomenon itself frequently determines the level of abstraction.

It is not always possible to build physical models of the phenomenon under investigation. This is particularly true of behavioral phenomena, such as consumer behavior. Consequently, models of behavioral processes are constructed at higher levels of abstraction.

Consumer behavior models have been classified as empirical or theoretical on the basis of the evidence that supports their use in marketing practice or as a starting point for subsequent research. Empirical models are developed by a model building process called abstraction, whereas theoretical models are built by using a process called realization.[1]

Empirical models are developed with reference to observed real world relationships. By using the abstraction approach, which is based on inductive reasoning, the researcher begins with a specific real world situation. The perceived structure of the phenomenon is then organized in such a manner that it can be tested by repeated research. When sufficient empirical evidence is available, the researcher develops a general model to explain all similar situations. Finally, the general model is applied to real world situations to check its accuracy. The resultant feedback from this application provides the basis for further alteration and refinement of the model.[2]

In contrast to empirical models, theoretical models take as their starting point abstract principles and theory. These models are based on logical, deductive

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[1]Lazer, "The Role of Models in Marketing," p. 10.

[2]Ibid, p. 10.

thought processes. In this case the researcher begins with a set of propositions that are internally consistent, and expresses them as model. Then empirical evidence is gathered which leads to the establishment of relationships. Next, the abstract model is applied to a real world situation to verify its accuracy. If problems are identified, this information provides feedback to the theoretical statements which provides a basis for modifying the model.[1]

The usefulness of models in the systematic inquiry and analysis of most complex phenomena can not be underestimated. At the same time, there are several disadvantages associated with models. Both the advantages and disadvantages of models are briefly reviewed below.

Advantages and Disadvantages of Models

There are at least seven major advantages associated with the use of models. First, since models are logical constructs, they force the researcher to consider the contribution of the various parts of a phenomenon to the total system. Second, models identify major variables. The variables are necessary for model building. Because most complex processes or phenomenon are in themselves too

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[1]Ibid., p. 11

large for analysis or manipulation, the researcher is forced to consider carefully which variables are meaningful, and which to include or exclude.[1]

Third, models provide a frame of reference for solving problems. Descriptive models are especially useful in presenting a representation of some phenomenon. By demonstrating the relationship between variables as well as emphasizing nonfitting parts, models suggest fruitful lines of inquiry and existing information gaps.[2]

Fourth, models not only examine and describe phenomena, but they are also useful in explaining existing relationships and frames of reference. Such models are suggestive and flexible. Frequently, models play more than an explicative role and a representation of an existing situation. They often become a means of presenting future reality. Hence, the fifth advantage of models is their usefulness as aids in making predictions.[3]

Sixth, models can be useful in theory development. As noted earlier in this section, all theories are models,

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[1]Markin, Consumer Behavior, p. 79; and Walters, Consumer Behavior, p. 46.

[2]Lazer, "The Role of Models in Marketing," p. 13; and Walters, Consumer Behavior, pp. 46-47.

[3]Lazer, "The Role of Models in Marketing," p. 13; and Walters, Consumer Behavior, p. 47.

but not all models are theories. Model builders often hypothesize about various aspects of phenomenon. By using either the abstraction or realization approach to model builindg, the researcher is able to extend knowledge, which may result in the construction of a theory.[1]

The seventh advantage of models is that they may stimulate the generation of hypotheses needed for theory development. By generating hypotheses which can be verified and tested, models serve the useful purpose of furthering the application of the scientific method in research and the extension of knowledge.[2]

While models offer a number of important advantages, there are several important disadvantages associated with models that should be recognized.

First, since models are abstractions of reality, they often tend to oversimplify complex phenomena. This oversimplication can lead to inadequate analysis, poor comprehension, and misunderstanding about the real world phenomenon. A second and related disadvantage is that models are incapable of expressing the complexity of a phenomenon.

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[1]Lazer, "The Role of Models in Marketing," pp. 13-14.

[2]Lazer, "The Role of Models in Marketing," p. 14; and Walters, Consumer Behavior, p. 47.

Consequently, models are often substituted for reality, and the model is interpreted as a statement of the real world.[1]

A third disadvantage of models is that they tend to reduce or retard discussion. When a model, such as a mathematical model, is expressed with a high level of precision, there is a certain awe associated with it. This precision is then mistaken for fact, which retards attempts to improve on the model.[2]

The fourth disadvantage associated with models is their inflexibility. Since most models incorporate a number of implicit as well as explicit assumptions, the flexibility of the model is restricted.[3]

In summary, the preceding section has focused on defining and classifying models, as well as outlining the model building process, and identifying both the advantages and disadvantages associated with models. In short, a model can be defined as a representation of reality. All models are based on assumptions and are constructed at varying levels of abstraction. Models can be classified by either their level of abstraction and manner of presentation as well as by their purpose. The main purpose of

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[1]Walters, Consumer Behavior, p. 47.

[2]Ibid.

[3]Ibid.

models, particularly in theory development, is two fold. First, models aid in the identification of hypotheses for the purpose of developing new theoretical insights. Second, models serve the purpose of explaining existing theory.

In the field of consumer behavior, there are a variety of both theory development and theory explanation models. Some of these behavioral models are relatively simple and have the limited purpose of identifying all or a part of consumer variables. Other models are more complex and attempt to explain the fundamental relationships between the consumer variables. The most complex consumer behavior models are of the theory development kind. These models demonstrate the steps in the operational relationships among variables as well as specify the cause and effect between variables and relationships.[1]

BEHAVIORAL MODELS

There are many ways to view people. Scholars of human behavior have long recognized this problem. Consequently, a great many models of human behavior have been developed over the years. Some of these models have a bearing on

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[1]Ibid., pp. 42-43.

understanding consumer behavior. None of these models, however, were initially conceived to explain consumer behavior. Instead, each model of humanity was developed to portray some neglected facet of human behavior. As a result, these models are only partial, and often partisan. Even though each model is an incomplete description of human beings and inadequate to provide an integrated view of the consumer, each one provides a point of departure for more complex consumer behavior models.

Human Behavior

Consumers are subject to many influences which weave a complex pattern through their psyche and lead eventually to overt purchasing behavior. While the human mind is the only entity in nature with deep powers of understanding, it still remains the least understood. As a result, there are a number of different partial models for explaining buyer behavior. Kotler[1] characterizes several traditional models of humanity, which represent radically different conceptions of the mainsprings of human behavior. Each focuses on a different aspect of human behavior. Similarly,

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[1]Philip Kotler, "Behavioral Models for Analyzing Buyers," Journal of Marketing 29(October 1965):37-45.

Walters[1] describes several models of human behavior to show how consumer behavior may be viewed differently.

For example, the Pavlovian model views behavior as largely habitual rather than thoughtful; certain configurations of cues will set off the same behavior because of rewarded learning in the past. In contrast, the Freudian model views behavior as being strongly influenced by motives and fantasies which take place deep within the individual's private world. The Veblenian model focuses on certain exogeneous variables and emphasizes the influence of past and present social groups on a individual's behavior. Finally, the Lewin model views a person as a topological area operating within a total situation in which there is interaction between the individual and the environment. Although each of these models has contributed to understanding different aspects of human behavior and its subset consumer behavior, none of these models provide an integrated mosaic of consumer behavior.

Consumer Behavior

The complexity of consumer behavior is evident from the number of psychological and sociological factors

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[1]Walters, Consumer Behavior, pp. 47-55.

involved, making it difficult to provide an integrated mosaic that includes all possible influencing factors. Marketing scholars have learned much from the human behavior models that directly involve consumers; and by drawing on the foundations already established, they have been able to develop consumer models of their own. One author has presented an overview of no less than twenty-eight types of models of consumer behavior, covering a wide range of contemporary research.[1]

Although knowledge and understanding of consumer behavior is increasing at a rapid rate, research in the behavioral sciences as well as in marketing has tended to be limited, focusing on a relatively small number of constructs. At the same time, this work investigates the constructs vigorously and in great detail. Consequently, the absolute level of knowledge and the ability to explain and predict consumer behavior are still quite limited. Until recently, the field of consumer behavior has been somewhat fragmented in orientation, and has borrowed at will from the behavioral sciences without a consistent rationale for theoretical development.

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[1]Flemming Hansen, Consumer Choice Behavior: A Cognitive Theory, (New York: The Free Press, 1972), pp. 432-461.

Most of the models reviewed by Hansen are basic models, which state relationships among a few dependent and a few independent variables. By contrast, several complex models have been developed which show less detailed concern with constructs and greater concern with relationships among the constructs. These formal models of consumer behavior which began to appear in the 1960's attempt to describe and systematize the buying process and thereby provide a guide for further study and research.

Interest in comprehensive models of consumer behavior has generated a variety of models. Among the various comprehensive models, three have received wide-scale attention: one proposed by Nicosia;[1] one by Engel, Kollat, and Blackwell;[2] and one by Howard and Sheth.[3] In addition,

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[1]Francesco M. Nicosia, Consumer Decision Processes: Marketing and Advertising Implications, (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1966).

[2]James F. Engel, David T. Kollat, and Roger D. Blackwell, Consumer Behavior, (New York, N.Y.: Holt, Rinehart and Winston, Inc., 1968, 1973); and James F. Engel, Roger D. Blackwell, and David T. Kollat, Consumer Behavior, 3rd edition, (Hinsdale, IL: The Dryden Press, 1978).

[3]John A. Howard, Marketing Management: Analysis and Planning, Revised edition, (Homewood, IL: Richard D. Irwin, Inc., 1963), pp. 3--113; John A. Howard and Jagdish N. Sheth, "Theory of Buyer Behavior," in Changing Marketing Systems...Consumer, Corporate and Government Interfaces, ed. Reed Moyer, (Chicago: American Marketing Association, 1967), pp. 253-262; John A. Howard and Jagdish N. Sheth, "Summary of the Theory of Buyer Behavior," in Perspectives in Marketing Theory, eds., Jerome B. Kernan and Montrose S.

two other particularly noteworthy comprehensive models are: one proposed by Andreason;[1] and one by Sheth.[2] The first four models focus on individual decision making, whereas the Sheth model deals with joint or group decision making.

Collectively, these models attempt to integrate a number of psychological and sociological factors relevant to buying and consuming behavior. While somewhat different from one another, each offers a general overview and a model for coordinating the factors from the behavioral sciences and attempts to relate them to the decision making process. Although there is only limited empirical support for most of the interactive effects implied by these models, research studies have attempted to relate the internal and external factors to consumer decision making.

Sommers (New York: Appleton-Century-Crofts, 1968), pp. 154-173; John A. Howard and Jagdish N. Sheth, The Theory of Buyer Behavior, (New York: John Wiley and Sons, Inc., 1969); John A. Howard, Marketing Management: Operating, Strategic and Administrative, 3rd ed., (Homewood, IL: Richard D. Irwin, Inc., 1973); pp. 61-74; and John A. Howard, Consumer Behavior: Application of Theory, (New York: McGraw-Hill Book Company, 1977).

[1]Alan R. Andreason, "Attitudes and Consumer Behavior: A Decision Model," in New Research in Marketing, ed. Lee Preston (Berkeley, CA: Institute of Business and Economic Research, University of California, 1965), pp. 1-16.

[2]Jagdish N. Sheth, "A Theory of Family Buying Decisions," in Models of Buyer Behavior: Conceptual, Quantitative and Empirical, ed. Jagdish N. Sheth (New York: Harper and Row, Publishers, 1974), pp. 17-33.

Substantive findings are beginning to emerge in the literature that provides an empirical foundation upon which the future edifice of a theory can be built.

As mentioned earlier, the consumer has been studied for many years in many ways. Consumer behavior has been studied at two levels: societal and individual. At the society or macro level the emphasis is on the behavior of aggregates. In contrast, at the individual or micro level, the emphasis is on the attributes of an individual or types of individuals rather than of an aggregate, and on the interactions among attributes. At this micro level, the individual's behavior is explained as the result of a process.

Buyer Behavior

Consumer behavior is not just the result of some set of determining forces but, instead, it is a dynamic process with the consumer as an active participant. At this point it should be obvious there is no single view of consumer behavior. Likewise, there are a multiplicity of views regarding buyer behavior.

It should be recalled that in an earlier section on definition of terms, consumer behavior was defined as the acts of individuals directly involved in obtaining and using economic goods and services. In contrast, it was

noted that buyer behavior was a subset of consumer behavior. Thus, buyer behavior is limited to the acts of individuals in the exchange process for goods and services, which includes the processes that determine as well as influence these acts.

Since mental activity remains beyond observation, the framework or model of the buying process must be supplied by the researcher, either as predictions drawn from some theoretical position or as an inference from empirical findings. As previously mentioned, there are a multiplicity of views regarding buyer behavior. There are, however, three views that appear to dominate the literature; each view of the buying process is the out-growth of different theoretical positions and research traditions.

Risk Reduction. The first view of the buying process is based on the concept of perceived risk in consumer behavior. The proposal that consumer behavior involves risk taking was first put forth by Raymond A. Bauer in 1960.[1] The notion of perceived risk and the view that much buying behavior could be interpreted as an attempt to reduce risk has formed the basis of a considerable body of research in the past two decades, and has generated a

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[1]Raymond A. Bauer, "Consumer Behavior as Risk Taking," in Dynamic Marketing for a Changing World, ed. Robert S. Hancock (Chicago: American Marketing Association, 1960), pp. 389-398.

number of divergent research streams.[1] According to Humphreys and Kenderdine,[2] researchers have adopted three divergent, narrowly defined concepts of risk.

One research stream stems from the work begun by Bauer, which views perceived risk as a function of

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[1]Johan Arndt, "Role of Product-Related Conversations in the Diffusion of a New Product, "Journal of Marketing Research 4(August 1967):291-295; Raymond A. Bauer, "Risk Handling in Drug Adoption: The Role of Company Preference," Public Opinion Quarterly 25 (Winter 1961):546-559, Donald F. Cox, "The Measurement of Information Value: A Study in Consumer Decision-Making," in Emerging Concepts in Marketing, ed. William S. Decker (Chicago: American Marketing Association, 1962), pp. 413-421; Donald F. Cox and S.U. Rich, "Perceived Risk and Consumer Decision-Making--The Case of Telephone Shopping," Journal of Marketing Research 1 (November 1964):32-39; Scott M. Cunningham, "Perceived Risk as a Factor in Product-Oriented Word-of-Mouth Behavior: A First Step," in Reflections on Progress in Marketing, ed. L. George Smith (Chicago: American Marketing Association, 1965), pp. 229-238; Scott M. Cunningham, "Perceived Risk as a Factor in the Diffusion of New Product Information," in Science, Technology and Market ing, ed. Raymond H. Haas (Chicago: American Marketing Association, 1966), pp. 698-721, Michael Perry and B. Curtis Hamm, "Canonical Analysis of Relations between Socioeconomic Risk and Personal Influence in Purchase Decisions," Journal of Marketing Research 6 (August 1969): 351-354; J. Paul Peter and Lawrence X. Tarpey, "A Comparative Analysis of Three Consumer Decision Strategies," Journal of Consumer Research 2 (June 1975):29-37; Donald T. Popielarz, "An Exploration of Perceived Risk and Willingness to Try New Products," Journal of Marketing Reseach 4 (November 1967):368-372.

[2]Marie Adele Humphreys and James M. Kenderdine, "Perceived Risk and Consumer Decision Making: An Alternative View of Uncertainty," in 1979 Educators' Conference Proceedings, eds., Neil Beckwith et al. (Chicago: American Marketing Association, 1979), pp. 283-285.

expected negative utility associated with buying behavior.[1] In contrast to the expected negative utility view, a second research stream focuses on expected positive returns. This approach stems from the work of researchers attempting to build attitude models.[2] The third research stream is positioned between the extremes represented by the two preceding approaches. This approach stems from the work pioneered by Lewin, which focuses on the net perceived return.[3]

Dissonance Reduction. Another view of buyer behavior is based on the original work by Leon Festinger, who developed a theory of cognitive dissonance.[4] The dissonance reduction approach is similar to the risk reduction

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[1]Donald F. Cox, "Risk Handling in Consumer Behavior -- An Intensive Study of Two Cases," in Risk Taking and Information Handling in Consumer Behavior, ed. Donald F. Cox (Boston, MA: Divison of Research, Graduate School of Business Administration, Harvard University, 1967), pp. 36-38; and Scott M. Cunningham, "The Major Dimensions of Perceived Risk," in Risk Taking and Information Handling in Consumer Behavior, ed. Donald F. Cox (Boston, MA: Division of Research, Graduate School of Business Administration, Harvard University, 1967), p. 83.

[2]William L. Wilkie and Edgar A. Pessemier, "Issues in Marketing's Use of Multi-Attribute Attitude Models," Journal of Marketing Research 10 (November 1973):428-441.

[3]Humphreys and Kenderdine, "Perceived Risk and Consumer Decision Making: An Alternative View of Uncertainty," p. 283; and Peter and Tarpey, "A Comparative Analysis of Three Consumer Decision Strategies," p. 29.

[4]Leon Festinger, A Theory of Cognitive Dissonance, (Stanford, CA: Stanford University Press, 1957).

approach because it is concerned with the way people reduce the perceived risk associated with buying behavior. However, the two approaches differ with regard to when the reduction of perceived risk takes place. The theory of cognitive dissonance is primarily concerned with the ways in which people reduce perceived risk after decisions are made, whereas the risk reduction approach focuses on the prepurchase phase of the buying process.[1]

Problem Solving. Since some buying situations require a long, careful evaluation of alternatives, while others require little or no information, the third view of buyer behavior is based on the notion that consumers are problem solvers. This approach does not reject either of the previously mentioned views, instead, it incorporates them into a broader framework of buying behavior. Consequently, the problem solving approach has provided the general organizing paradigm for a substantial body of research in the area of buyer behavior, including many of the marketing

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[1]Lee K. Anderson, James R. Taylor, and Robert J. Holloway, "The Consumer and His Alternatives," Journal of Marketing Research 3 (February 1966):62-68; Gerald D. Bell, "The Automobile Buyer After the Purchase," Journal of Marketing 31 (July 1967):12-16; James F. Engel, "Are Automobile Purchasers Dissonant Consumers?," Journal of Marketing 27(April 1963):55-58; Robert J. Holloway, "An Experiment on Consumer Dissonance," Journal of Marketing 31(January 1967): 39-43; and Harold H. Kassarjian and Joel B. Cohen, "Cognitive Dissonance and Consumer Behavior," California Management Review 8(Fall 1965):55-64.

models of consumer behavior. This approach to buyer behavior, which provides the organizing paradigm for present study, is explored in more detail in the final section of this chapter.

THE PROBLEM SOLVING APPROACH

In earlier discussions, it was noted that the study of consumer behavior is essentially integrative and multidisciplinary in nature. And while there is no single way to approach the field, many scholars tend to view consumer behavior as a multistage, problem solving process. This is the view adopted in this study.

One of the objectives of this chapter, as mentioned previously is to discuss the theoretical approach, as well as the supportive research evidence, which served as the organizing paradigm for the research model used in this study. Hence, the purpose of this section is to accomplish this objective.

In this section the implications of consumer problem solving will be explored. Attention will be focused on the premises of consumer problem solving, the nature of the process, and the extent and scope of this behavior. Much of the discussion will be related to exploring and analyzing the stages in the problem solving process and to examining the many research findings generated in connection with

this approach to buyer behavior.

Overview of the Problem Solving Approach

In the years since Dewey first itemized the steps in problem solving, many conceptualizations of the process have been advanced. These steps, in modified form, have become accepted as the standard paradigm for the problem solving process. They are:

1. Problem recognition.
2. Information search and information processing activity.
3. Evaluation of alternatives.
4. Decision, selection, or choice.
5. Post-decision evaluation.[1]

The steps of the problem solving paradigm can be applied to any problem. It is important to understand that a problem exists when there is a goal to be attained and uncertainty regarding the best solution. Further, for a problem to exist there must be more than one alternative solution. These conditions for the existence of a problem

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[1]Markin, Consumer Behavior, p. 508, Kenneth E. Runyon, Consumer Behavior and the Practice of Marketing, (Columbus, OH: Charles E. Merrill Publishing Company, 1977), p. 327; and Walters, Consumer Behavior, p. 84.

are critical because the problem solving process is concerned with designing, evaluating, and choosing from among alternative courses of action. If there is no inherent act of choice there can be no problem solving.[1]

Within the board framework of problem solving, buyer behavior can be considered as a distinct kind of problem-solving, with consumers taking on the general characteristics of all problem solvers and decisions makers. This view of buyer behavior posits that consumers actively seek solutions to problems. Such a position holds that consumer needs, wants, goals, and desires create problem situations within the individual. A problem is considered to exist when the consumer perceives a difference between an existing state of affairs and a desired state of affairs. A solution is viewed as being an effective response that provides a desired result to the perceived behavioral state. According to this view, consumers enter the market place in search of products and services to fulfill their needs and enrich their lives. Hence, consumers purchase goods and services because they are perceived as solutions to problems. The problem solving approach to buyer behavior posits that, in order to solve prolems, consumers must acquire information about the situation, process and

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[1]Markin, Consumer Behavior, P. 490; and Walters, Consumer Behavior, p. 84.

evaluate the information, determine and evaluate alternatives, explore the consequences of certain behavior, select one course of action from the alternatives, and eventually consider the consequences of the action taken.[1]

Premises. Underlying the problem-solving approach to buyer behavior are three critical premises regarding the nature of consumers. These premises are critical because they differentiate this approach from other approaches to buyer behavior, especially traditional economic theory.

The problem-solving approach contends that consumers: (1) are subjectively rational; (2) make decisions on the basis of incomplete information; and (3) are satisficers. Such a view of consumers posits that problems are not always defined correctly, instead they are defined programatically. It also posits that consumers do not always solve problems well; instead, they solve them just well enough. Further, the problem-solving approach recognizes that complete information is not always available, nor is it always sought. Instead, this view of buyer behavior treats the consumer as an active information seeker. It depicts the consumer as one who does not possess and is

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[1]Markin, Consumer Behavior, pp. 487-490; Runyon, Consumer Behavior, p. 324; Schiffman and Kanuk, Consumer Behavior, p. 435, and Walters, Consumer Behavior, pp. 83-84.

unlikely to obtain complete knowledge about all available alternatives and therefore cannot make perfect decisions. It also recognizes the inherent costs involved in the acquisition of information. Consumers often consider the cost of obtaining additional information too high with respect to the probable need for the information. Consequently, decisions are made on the basis of available information. Hence, the consumer is viewed as one who will cease actively seeking information when it is perceived that sufficient information concerning some of the alternatives has been obtained and that a satisfactory decision can be made. In short, the premises underlying the problem-solving approach to buyer behavior views the consumer as logically solving problems, arriving at decisions on the basis of known facts about the problem encountered.[1]

The subjective rationality premise differentiates the problem solving approach from the economic approach to buyer behavior in that the consumer is considered to be rational, whether maximizing or not. Subjective rationality focuses on logical behavior that results from what is believed to be true. Since these beliefs constitute their knowledge of the world, consumers define problems in terms

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[1]Markin, Consumer Behavior, p. 488; Runyon, Consumer Behavior, p. 325; Schiffman and Kanuk, Consumer Behavior, pp. 435-436; and Walters, Consumer Behavior, pp. 84-85.

of subjective perceptions and solve them accordingly. For this reason, consumers occasionally define problems incorrectly and solve them poorly. They have no real choice; they must either act on their beliefs or not act at all.[1]

The incomplete information premise is based on the assumption that it is seldom possible for the consumer to obtain anything approaching complete information. There are at least three identifiable obstacles to the acquisition of complete information. First, consumers rarely have sufficient time to acquire all available information. Second, the quality of information available often exceeds the consumer's processing capacity. Third, consumers frequently lack the technical knowledge required to critically evaluate all of the available information.[2]

Faced with these three obstacles, the incomplete information premise posits that consumers do not try to obtain complete information. Instead, their attention is directed to gathering information that subjectively appears most relevant to the problem and will provide a satisfactory solution.[3]

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[1]Markin, Consumer Behavior, pp. 82-84; Runyon, Consumer Behavior, p. 325; and Walters, Consumer Behavior, p. 72.

[2]Runyon, Consumer Behavior, p. 326.

[3]Ibid.

The third premise characterizes consumers as being satisficers, rather than optimizers. This notion is based on an observation about general decision making advanced by Herbert Simon, who noted that, if people always sought an optimal decision, the number of possible decisions they could make would be reduced to an unacceptable level. Thus, instead of seeking optimal solutions, people tend to set some minimum objectives to be accomplished and considered as acceptable any alternative that appears capable of satisfying these objectives.[1]

When applied to buyer behavior, the concept of satisficing postulates that consumers seldom seek optimal solutions, because of the time and effort required for such activities. Instead, the way consumers solve problems is by accepting a solution that meets their minimum requirements.[2]

In summary, the problem-solving approach to buyer behavior characterizes consumers as being subjectively rational; they make decisions on the basis of incomplete information; and they seek satisfactory, rather than optimal, solutions to their problems. Choice is an inherent factor in all buying decisions. Likewise, risk or

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[1]Ibid.

[2]Ibid.

uncertainty is also an integral part of the buying process, especially in situations when less than perfect information exists. Since perceived risk is a problem that can be solved through the acquisition of additional information, the problem solving approach to buyer behavior accounts for risk-reduction behavior. Similarly, it accounts for buying situations where no real risks are involved. Finally, this approach to buyer behavior is consistent with brand switching, the trial of new products, and the deliberate taking of risks. Because it is capable of accounting for so many variations in buying behavior, the problem solving approach is a very popular view and, consequently, has been the focus of considerable research. In fact, this view is incorporated into most of the formal models of consumer behavior.[1]

Although these appears to be little disagreement with this characterization of consumers, there does exist an inconsistency in the identification of the behavior. Like many other notions borrowed from the behavioral sciences, the problem solving approach to buyer behavior suffers from semantic satiation. Thus, as one examines the literature, it becomes apparent that a number of different terms are

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[1]Runyon, Consumer Behavior, p. 325, and Schiffman and Kanuk, Consumer Behavior, p. 435.

used interchangeably to describe the buying process. For example, the terms choice behavior, decision-making, information gathering, information processing, information seeking, purchasing behavior, problem solving, rational behavior, and search behavior have all been used on one occasion or another to describe similar or identical behavior.

Scholars of consumer behavior, who subscribe to the problem solving approach to buying behavior, generally assume that people are both problem solvers and decision makers. At the same time, however, there is less agreement with regard to the nature of problem solving and decision making. In fact, some writers use the two terms interchangeably, while others stress the difference between them. Consequently, the literature is plagued with a semantic, if not a conceptual, problem.

Some writers who view problem solving and decision making as being synonymous have been influenced by the work of Herbert A. Simon, while others have been influenced by the writings of John Dewey. According to Simon, decision making does not refer "merely to the final act of choice among alternatives, but rather to the whole process of decision."[1] Simon's view of decision making involves three

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[1]Herbert A. Simon, Administrative Behavior, 3d ed., (New York: The Free Press, 1976), p. 67.

principal steps: "(1) the listing of all the alternative strategies; (2) the determination of all the consequences that follow upon each of these strategies; (3) the comparative evaluation of these sets of consequences."[1]

The decision making process described by Simon corresponds closely to the problem solving process. John Dewey has been given credit for first describing the stages of problem solving. They are "(1) A difficulty is felt; (2) The difficulty is located and defined; (3) Possible solutions are suggested; (4) Consequences are considered; (5) A solution is accepted."[2] In view of the fact that these two processes, as described by Simon and Dewey, respectively, appear to be quite similar, a number of writers use the terms interchangeably.

Not all scholars accept the synonymity of problem solving and decision making. Instead, they argue that while the two processes are inextricably related, a distinction should be made between problem solving and decision making.

According to the advocates of this position, problem solving consists of finding problem causes and developing alternative solutions. Since problems represent barriers

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[1]Ibid.

[2]John Dewey, How We Think, (New York: D.C. Heath and Company, 1910), p. 72.

to goal attainment, determining the underlying cause of the problem is a necessary and substantial prerequisite to the development of alternative solutions. Hence, problem solving presumes that the key is to identify some alternative solutions from which to choose.[1]

In contrast to problem solving, the advocates of this position agrue that the focus of decision making is on choice. To decide means to choose. A decision can be defined as the selection of a course of action from some set of alternatives. Hence, decision making tends to presume that alternatives exist. It focuses on choosing; it is an evaluative, judicial process.[2]

Given the above distinction between problem solving and decision making, the issue, then, becomes one of describing the inextricable relationship between the two processes. The general view of this relationship is that decision making takes place within and during the problem solving process at every point involving a choice.[3] More specifically, decision making occurs at the points in the

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[1]William F. O'Dell, Andrew C. Ruppel, and Robert H. Trent, Marketing Decision Making: Analytic Framework and Cases, 2nd ed., (Cincinnati: South-Western Publishing Co., 1976), p. 11.

[2]Ibid.

[3]Martin L. Bell, Marketing Concepts and Strategy, 2nd ed., (Boston: Houghton-Mifflin Company, 1972), p. 279.

problem solving process where alternatives are identified, evaluated, and selected.

Decisions must be made concerning each alternative. Is it a possible solution to the problem? Are there any constraints that would prohibit such an action? Then, each alternative must be evaluated to predict the extent to which it can solve the problem. Finally, a choice must be made, selecting an alternative that is perceived as a solution to the problem.

In sum, a review of the literature indicates that the problem solving approach is the dominate view of buyer behavior. However, there is less than general agreement among scholars concerning the synonymity and interchangeability of certain concepts and terms. Furthermore, there is also disagreement regarding the extent to which true problem-solving takes place in buyer behavior. This issue is discussed in the next section.

The Extent of Problem-Solving. As previously mentioned, buyer behavior can be considered as a distinct kind of problem-solving. Such a position views the consumer as moving through a series of sequential and reiterative steps in reaching a decision regarding some aspect of consumption. There is some question, however, regarding the extent to which problem-solving enters into all buying behavior. On this issue scholars are divided. Some

writers contend that problem-solving is an important aspect of the buying process. Other observers take a contrasting position, arguing that real problem-solving is not characteristic of the consumer buying process.

The argument that problem-solving is not prevalent in buying behavior is best represented in the writing of Katona, who makes the following observation:

> "Problem solving behavior is a relatively rare occurrence . . . The main alternative to problem-solving behavior is not whimsical or impulsive behavior . . When genuine decision-making does not take place, habitual behavior is the most usual occurrence: people act as they have acted before under similar circumstances, without deliberating and choosing."[1]

Many observers of consumer behavior tend to agree with Katona, claiming that problem-solving is not as prevalent as habitual behavior, which is exhibited when the consumer repeatedly purchases the same product without appearing to give much thought to the matter. According to the advocates of this position, problem-solving takes place in those relatively rare situations in which consumers are presented with really new products or services, or when some problem arises in connection with the use of some present product or service, or when the consumer is faced

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[1]George Katona, "Rational Behavior and Economic Behavior," Psychological Review 60 (September 1953): p. 310.

with a change in the present mode of living.[1]

Not all scholars of consumer behavior accept the argument that buying behavior is either problem-solving or it is habitual. For example, Alderson presents a somewhat different argument, claiming that all buying behavior is problem-solving. To support his case, Alderson notes that a clear distinction between the consumer and the consumer purchasing agent is needed to understand problem-solving. Since most purchases are made to provide for consumption at some future time, the consumer purchasing agent is in a different frame of mind than the consumer or user. This person must cope with the problems of providing for goods and services which will be needed in the future by one or more people. Consequently, the buyer must weigh each purchase against an anticipated pattern of behavior.[2]

By drawing a distinction between buying and consumption, Alderson argues that the issue of habit can be explained away. Buying havits can be broken overnight with no real disruption of living patterns. On the other hand, consuming habits are part of the living pattern. Hence, buying habits can be regarded as deliberately chosen routines designed to save time and energy for consideration

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[1]Katona, The Powerful Consumer, pp. 138-140.

[2]Alderson, Marketing Behavior and Executive Action, pp. 164-166; also see p. 13-17 of this chapter.

of more important matters. In short, habitual buying behavior is only an abbreviated form of problem-solving.[1]

It should be apparent from the preceeding discussion that not all purchase situations necessarily involve all steps of the problem-solving process. This does not, however, mean that all buying behavior is either problem-solving or habitual. To relegate buying behavior into a dichotomy is to ignore the nature of human behavior. A more appropriate conceptualization recognizes that there are qualitative differences in the kinds of purchase situations facing consumers and that these varying situations require different degrees of effort. Further, the extent of the effect devoted to solving purchasing situations will vary from one individual to another. Such a position recognizes that in some situations consumers faithfully follow the sequence of steps in the problem-solving process while in other situations the consumer apparently leaps from problem recognition to purchase. This broader conceptualization views buying behavior as being arrayed along a continuum, with a wide range of purchasing situations stretching from those involving utter simplicity to those

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[1]Ibid., p. 166.

characterized by extreme complication.[1] This perspective of problem-solving behavior introduces the notion that buying behavior can be broadly conceived as consisting of two major types of problem-solving: programmed and non-programmed.[2]

Programmed problem-solving implies that certain purchase situations are repetitive and can be handled by a routine procedure, which requires no special thought on the part of the purchaser. Consequently, in the interest of using their time and other resources efficiently, consumers often develop a definite procedure for handling problems that tend to be repetitive. As long as this predetermined procedure provides a satisfactory solution, the consumer will move swiftly and deliberately from problem recognition to purchase, engaging in little or no external information search or information processing. Programmed purchasing routines are not irrevocable. In fact, they are subject to change any time they cease to provide the consumer with a satisfactory problem solution.[3]

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[1]Peter Wright, "Consumer Choice Strategies: Simplifying vs Optimixing," Journal of Marketing Research 12 (February 1975: 61.

[2]Markin, Consumer Behavior, pp. 497-498; and Runyon, Consumer Behavior, p. 335.

[3]Ibid.

In contrast to programmed problem-solving, nonprogrammed problem-solving implies that a particular problem may not have occurred before or it has occurred so infrequently that the consumer's past experience is of little value. Generally, nonprogrammed problems do not lend themselves to routine solutions because they tend to be novel in some respect, or because their precise nature and structure are complex, or because they may be either psychologically or financially important enough to the consumer that they require more extensive treatment. In any case, nonprogrammed problem-solving is not routine; there is no set procedure for solving nonprogrammed problems because each one has unique features.[1]

It has been mentioned that a major form of consumer problem-solving is nonprogrammed, within this category is a range of non-routine buying strategies. Not all nonprogrammed problems encompass the same level of mental or physical effort. In fact, it is the level of effort devoted to the mental and physical activities of searching for and processing information that seems to differentiate the various levels of nonprogrammed problem-solving. Since the solution to each unique nonprogrammed problem requires different amounts of information, the consumer's search for

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[1]Markin, Consumer Behavior pp. 498-499; and Runyon, Consumer Behavior p. 336.

a satisfactory solution may involve a great deal of time and effort or it may involve little time and effort. In other words, on a continuum of effort, the range of non-routine buying strategies is represented by extended problem-solving at one extreme and extemporaneous problem-solving at the other end.[1]

Extended problem-solving is characterized by extensive external information search as well as considerable information processing. For problems involving extended problem-solving behavior, the consumer needs a substantial amount of information concerning each of the alternative solutions to be considered. Likewise, a correspondingly large amount of information is needed in order to establish a set of criteria on which to evaluate the various alternatives under consideration. In short, this type of problem-solving is likely to cause the consumer to bring forth a large number of cognitive processes because of the detailed and complete information sought, as well as the amount of information to be processed.[2]

As previously mentioned, the various levels of

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[1]Howard and Sheth, The Theory of Buyer Behavior, pp. 27, 46-47; Markin, Consumer Behavior p. 499; Runyon, Consumer Behavior, p. 336; and Schiffman and Kanuk, Consumer Behavior, p. 444.

[2]Howard and Sheth, The Theory of Buyer Behavior, p. 46; Markin, Consumer Behavior, p. 499; and Schiffman and Kanuk, Consumer Behavior, p. 444

non-programmed problem-solving can be differentiated by the amount of information sought and processed. It should be recognized that the extent of information seeking and processing is in itself a function of many factors which are both endogenous and exogenous to the consumer. Many nonprogrammed problem situations require less than extensive problem-solving in order to derive a satisfactory solution. Collectively, problem-solving for these situations represents the middle range between the two extremes of the continuum. At this level of limited problem-solving, the consumer has already established alternative evaluation criteria. Frequently, alternative solutions have been identified, but no preference has been fully established. Consequently, the consumer engages in limited information search and processing activities in order to discriminate among the various solutions under consideration.[1]

While extensive problem-solving represents one extreme form of non-routine buying behavior and limited problem-solving represents the middle range, the other extreme of the continuum is represented by extemporaneous problem-solving. This type of problem-solving is characterized by

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[1]Howard and Sheth, The Theory of Buyer Behavior, p. 46; and Schiffman and Kanuk, Consumer Behavior, p.444.

little or no deliberation and virtually no external search for information. In this situation, problem-solving is triggered by whatever information is projected by a perceived pattern of cue configurations, and the information processed is largely stored information. The entire extemporaneous problem-solving process is a rapid procedure.[1]

It should be apparent from the preceding discussion that buying behavior, as a distinct form of problem-solving, does not necessarily involve all five stages of the problem-solving process. Some stages, however, are always involved and must be taken in sequence, while others may occur almost simultaneously. More specifically, problem recognition will always precede the purchase decision. Similarly, the purchase decision will always precede the postpurchase evaluation. In contrast, the search and evaluation stages may occur either in sequence or simultaneously, and in some cases almost instantaneously.[2]

It should also be apparent from the preceding discussion that the extent of problem-solving as well as the effort put forth by the consumer is a function of numerous factors, some endogenous, others exogenous. Many problem

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[1]Markin, Consumer Behavior, p. 500.

[2]Runyon, Consumer Behavior, p. 335.

situations tend to be repetitive and lend themselves to routine buying strategies. Other problems tend to be non-repetitive and are therefore novel and frequently more consequential. These situations require different levels of problem-solving, involving a degree of effort ranging from extemporaneous to extended problem-solving.

It was noted in the preceding discussion that the extent of problem-solving and the effort put forth by the consumer is a function of many variables. While numerous factors influence any given purchase situation, the determinants of the extent of problem-solving can be conveniently grouped into four categories: product characteristics, situational variables, consumer characteristics, and environmental conditions.[1]

Research has shown that three product related factors tend to influence the extent of problem-solving. When any of the following conditions exist, there is a marked tendency toward extended information search, processing, and evaluation. First, problem-solving tends to be more extended when the price of the product is high in relation to the consumer's income. Second, when all product choices possess both desirable and undersirable attributes, more effort is devoted to problem-solving. Finally, when

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[1]Markin, Consumer Behavior, p. 500.

confronted with the need to purchase products that have a relatively long and useful functional life, extensive problem-solving activities are more pronounced.[1]

Several situational variables have been identified with more extended problem-solving. First, there is a greater tendency for extended problem-solving when the buyer is a novice with little or no relevant past experience. Second, new products also create a need for more deliberation. Third, past experience which is no longer relevant because of changed purchase requirements or because the past information is obsolete often forces the consumer to engage in more extensive problem-solving activities. Similarly, when past experience or information has been inadequate, irrelevant, or unsatisfactory, the consumer frequently extends the search, processing, and evaluation stages of the problem-solving process. Finally, there is a greater likelihood of extended problem-solving when the consumer perceives the purchase to be both psychologically and socially important, especially if the purchase will have social or cultural visibility.[2]

A greater tendency for extensive problem-solving has also been related to certain consumer characteristics,

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[1]Ibid., p. 501

[2]Ibid., p. 502

such as age, education, income, and occupation. Consumers who are under thirty-five, college educated, middle-income, and white-collar workers have been associated with more extensive problem-solving behavior. In addition, consumers who perceive no urgency for the product and enjoy shopping have also been found to engage in extensive problem-solving more so than others.[1]

Certain environmental conditions have been associated with problem-solving that is extended rather than limited or habitual. This type of behavior frequently occurs when members of the household disagree with regard to what constitutes an appropriate solution to the problem. Similarly, when the consumer's intended behavior deviates from what normal or regular reference groups consider to be appropriate, extended problem-solving often takes place. Finally, consumer problem-solving is more likely to be extended in scope and involve a greater degree of the consumer's feeling and expectations about the future.[2]

In this introductory section, an overview of the problem-solving approach to buyer behavior has been presented. It was noted that as a distinct form of problem-solving, buying behavior is viewed as a sequential

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[1]Ibid.

[2]Ibid.

and reiterative series of psychological and physical activities ranging from problem recognition, search, evaluation, and decision to postpurchase considerations. Three critical premises of this approach to buyer behavior were identified. These premises characterize consumers as being subjectively rational satisficers, who make decisions on the basis of incomplete information. It was also observed that decision-making and problem-solving are two separate yet interrelated processes. In this overview, the extent of problem-solving, as related to the buying process, was also examined. It was noted that some scholars of consumer behavior dichotomize buyer behavior into either problem-solving or habitual behavior. It was also stated that an alternative view argued that habitual behavior was only an abbreviated form of problem-solving. Taken from this perspective, all buying behavior can be arrayed along a continuum, with routine programmed problem-solving at one extreme and extensive non-programmed problem-solving at the other extreme. Between these two extremes are a wide variety of problem-solving activities. The final issue discussed in this overview dealt with the determinants of the extent of problem-solving. In short, it was noted that there were many variables that could potentially affect the extent of problem-solving activities. Among the factors discussed were those which are integral to the consumer, those which are integral to the nature of the product,

those which are integral to the problem situation, and those which are integral to the environment.

In the following section, the individual stages in the problem-solving process are explored and elaborated on further. In addition, research findings relating to each of these stages of the buying process are also introduced.

Stages of Problem-Solving

The multistage, problem-solving process has been described thus far as a sequential and reiterative series of psychological and physical activities. In has already been suggested that once consumers recognize a problem, their behavior generally takes the form of collecting and processing information about alternative solutions, evaluating this information, and establishing a preference order between the various alternatives. The establishment of an initial preference order does not necessarily lead to a decision. Indeed, consumers often continue to search for additional information and to re-evaluate old information until they acquire sufficient confidence that their preference order will not be altered by subsequent information.

It is this reiterative process of seeking and evaluating information, in order to achieve the required level

of confidence, that consumes time and differentiates extended problem-solving from extemporaneous, routinized, and limited problem-solving. Obviously, the level of confidence desired before making a decision is affected by numerous factors. When the required level of confidence is reached, the consumer generally makes a purchase decision.

It has been noted that the stages of the problem-solving process are not necessarily unidirectional. In fact, the reiterative nature of problem-solving suggests that consumers can move either backward or forward in the buying process, as well as skipping stages. For example, search and information processing activities do not automatically follow problem recognition, nor do these activities lead directly to purchase, consumption, and postpurchase evaluation. In contrast, however, problem recognition will always precede the purchase decision, which is always followed by the postpurchase evaluation. In short, the fact that the consumer is in one stage of the process is neither sufficient nor a necessary condition for progressing to another.

In the sections which follow each of the stages in the consumer problem-solving process are explored in greater detail. For organizational reasons, the stages will be discussed in the order of their normal sequence. Recall that the stages in the problem-solving process are:

1. Problem recognition
2. Information search and information processing activity
3. Evaluation of alternatives
4. Decision, selection, or choice
5. Post-decision evaluation

PROBLEM RECOGNITION

The first stage in the problem-solving process is problem recognition. It is perhaps the most complex stage because it is a perceptual phenomenon involving the interaction of social, psychological, and environmental variables. Problem recognition occurs when the consumer becomes aware of a need, which stems from a perceived difference between an actual and a desired state of affairs. The ideal state of affairs can be characterized as the individual's perception of the ideal life, including preferred psychological, social, and economic conditions. In contrast, the actual state of affairs is the individual's perceptual assessment of life as it is currently being lived; it is a performance evaluation of the psychological, social, and economic facets of life.[1]

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[1]Johan Arndt, "Reflections on Research in Consumer Behavior, " in Advances in Consumer Research, ed. Beverlee

In would seem reasonable to postulate that a perfect situation would exist for the individual whenever the ideal and acutal states were totally congruent. This condition, however, rarely occurs because both the ideal and the actual states are constantly changing over time. Consequently, the individual is continually in a state of incongruence. In view of this fact, it can also be postulated that the mere existence of incongruence is not sufficient to provoke problem recognition. It would thus seem that the incongruence or difference between the ideal and actual states would have to be of sufficient magnitude in order to provoke problem recognition.[1]

When problem recognition does occur as a result of a discrepancy between the ideal and actual states, two major types of outcomes are possible. The first type of outcome results in the postponement of problem-solving behavior because of external constraints. A variety of factors can

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B. Anderson (Proceedings of Association for Consumer Research, Vol. III, Sixth Annual Conference, 1976), p. 213; Constantin, Evans, and Morris, Marketing, pp. 167-170; James F. Engel, Hugh G. Wales, and Martin R. Warshaw, Promotional Strategy, 3d ed., (Homewood, IL: Richard D. Irwin, Inc., 1975), p. 120: Markin, Consumer Behavior, p. 509; Runyon, Consumer Behavior, p. 327; and Schiffman and Kanuk, Consumer Behavior, p. 439.

[1]Arndt, "Reflections on Research in Consumer Behavior," p.213; Constantin, Evans, and Morris, Marketing, p. 168; Engel, Blackwell, and Kollat, Consumer Behavior, 3d, ed., pp. 23-24; Markin, Consumer Behavior, p. 509.

act as constraints, including conflict with cultural values, groups norms, family, and a lack of financial resources, time, and energy. The second type of outcome results in the activation of problem-solving behavior.[1]

Sources of Problem Recognition

Research dealing with the determinants of problem recognition has followed several somewhat different approaches. Some studies have focused on internal arousal. Other researchers have emphasized the interplay of external factors that give rise to problem recognition. While some researchers focus on the individual consumer, others have been concerned with the household unit. Of particular interest to these researchers is the influence of changing family circumstances and changing environmental conditions as well as the importance of family role structures in problem recognition.

The number and variety of situations that give rise to problem recognition are almost infinite. However, in the discussion that follows, some of the major determinants are identified.

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[1]Constantin, Evans, and Morris, Marketing; pp. 169-171; and Engel, Kollat, and Blackwell, Consumer Behavior, 2nd ed., p. 353.

One of the most common sources of problem recognition is need activation. This type of arousal occurs in three primary ways: arousal of a drive; autistic thinking; or environmental stimulation. Drive arousal is often the result of a felt need, which energizes need satisfying action. Autistic thinking can serve as a source of arousal because it is a unique thought process possessed by people, which allows them to think about objects not present and imagine the consequences of future activities as well. Finally, need activation can be aroused by an awareness of external stimuli.[1]

Another common cause of problem recognition is assortment depletion, which implies that in order to maintain a normal existence goods are continually consumed or used up. Consequently, deficiencies in the existing stock of items normally inventoried must be restocked and replenished.[2]

Dissatisfaction with an existing situation can also precipitate problem recognition. Run down, worn out,

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p. 322; and Engel, Wales, and Warshaw, Promotional Strategy, p. 121.

[2]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p. 229; Markin, Consumer Behavior, p. 509; Runyon, Consumer Behavior, p. 328.

broken products are all examples of unsatisfactory situations.[1]

Changing needs give rise to problem recognition in a variety of ways. For example, marriage and changes within the family, such as the birth of a child, give rise to new problems. Likewise, other changes that occur throughout the family life cycle, such as geographic mobility, social mobility, psychological mobility, and changing reference groups, often bring about problem recognition.[2]

Actual or expected changes in financial status are also precipitators of problem recognition. For example, salary increases, bonuses, cash gifts, tax refunds, debt retirement, and other financial windfalls increase the likelihood that consumption expenses will rise as well. The same effect often results from anticipated changes in financial status. Moreover, these possibilities stimulate recognition of addtional problems.[3]

It has been noted that the number and variety of factors that give rise to a problem recognition are almost

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p.229.

[2]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., pp. 229-230; Markin, Consumer Behavior, pp. 509-510; and Runyon, Consumer Behavior, p. 328.

[3]Ibid.

infinite; however, in addition to those mentioned, several others are noteworthy. For example, some acquistions lead to the recognition of other problems. Occasionally, problem recognition is the result of a need for change. Consumer problems are also recognized when new information sensitizes consumers to products and services.[1]

As mentioned at the beginning of this section, some researchers have focused their attention on the individual consumer and the determinants of problem recognition; others, however, have studied the interplay of changing family circumstances and changing environmental conditions which lead to problem recognition. In addition, some studies have emphasized family role structure as it relates to problem-solving behavior. Unfortunately, most studies have been concerned with role structures involved in purchasing, while few studies provide empirical evidence concerning the roles of family members at the problem recognition stage.[2]

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[1]Ibid.

[2]Engel, Kollat, and Blackwell, Consumer Behavior, 2nd ed. pp. 359-361; and Donald H. Granbois, "The Role of Communication in the Family Decision-Making Process," in Toward Scientific Marketing, ed. Stephen A. Greyser (Chicago: American Marketing Association, 1964), pp. 44-57.

Although research evidence is limited, several general observations can be made concerning the roles of husbands and wives in problem recognition. First, the extent of husband-wife involvement varies widely from product to product. Overall, however, the wife is involved in problem recognition to a greater extent than the husband. When the price of an item is high relative to income, there is a greater tendency for the husband to be involved in problem recognition. Similarly, husbands have a greater tendency to be involved in problem recognition when products are technically or mechanically complex.[1]

An addition to product related factors, several other generalizations concerning the roles of husbands and wives in problem recognition can be made. For example, there is a tendency for younger and higher income husbands to play a greater role in problem recognition than their older and middle- and lower-income counterparts. Also, there is a tendency for wives who are not employed outside the household to be less involved in problem recognition than working wives.[2]

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[1]Engel, Kollat, and Blackwell, Consumer Behavior, 2nd ed., pp. 359-361.

[2]Ibid.

In summary, problem recognition is the result of a perceived need. Awareness of this need produces tension. When the tensional state is of sufficient magnitude, cognitive activity is provoked. The purpose of the cognitive activity is to resolve the need and restore equilibrium. Problem recognition and the resultant cognitive activity does not, however, imply a problem solution; it only implies treatment of the tensional state. This treatment may include some mental and physical activity or some information processing. At this point, the problem-solving process may be postponed or it may proceed to the next stage.[1]

INFORMATION SEARCH AND INFORMATION PROCESSING

Once a problem is recognized and the decision not to postpone seeking a solution is made, the search process begins. This process includes two interrelated activities: information seeking and information processing. Information seeking, which takes place during the second stage of the problem-solving process, involves both mental processes

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[1] Robert F. Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination," in Marketing and the New Science of Planning, ed. Robert L. King (Chicago: American Marketing Association, 1968), p. 273; and Markin, Consumer Behavior, p. 510.

and physical activities consciously used by the consumer to gather information about the number of purchase alternatives, the relative merits of the various alternatives, and the consequences of selecting the various alternatives. In contrast, information processing takes place in both the second and the third stages of the problem-solving process. In the second stage, the function of information processing activities is to appraise the information being gathered. This appraisal function of information processing assists the consumer in determining whether to continue or discontinue information seeking. In the third stage of the problem-solving process, information processing focuses on discriminating and ranking the various alternative solutions identified. In short, the search process, which takes place in the second stage of the problem-solving process, serves the function of gathering information about alternatives, and developing criteria for evaluating these alternatives.[1]

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[1]Arndt, "Reflections on Research in Consumer Behavior," p. 213; Donald J. Hempel, "Search Behavior and Information Utilization in the Home Buying Process," in Marketing Involvement in Society and the Economy, ed. Philip R. McDonald (Chicago: American Marketing Association, 1969), p. 242; Robert F. Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination," pp. 273-276; Markin, Consumer Behavior, p. 510.

As previously mentioned, the search process begins with the consumer's perception of a problem. The extent of search activities will vary, however, depending on the consumer and the nature of the situation. Consequently, the search process may be instantaneous or it may involve intensive exploration over a prolonged period of time. Regardless of the extent, the search process normally moves through certain steps.[1]

Internal Search

First, the memory will be examined for relevant information. This process of internal search entails recalling stored information, such as experience from previous purchase situations, the experience of a friend or another family member, remembering past communications, and eliciting preformed attitudes.[2]

Many consumer problem situations are solved as a result of internal search. If stored information is sufficient to permit a decision, this type of problem-solving

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[1]Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination," p. 276.

[2]Granbois, "The Role of Communication in the Family Decision-Making Process," p. 62; Hempel, "Search Behavior and Information Utilization in the Home Buying Process," p. 242; and Markin, Consumer Behavior, p. 510.

is characterized as routinized. Therefore, the more familiar consumers are with a given problem situation, the more they can use information already stored in memory, and thereby reduce the costs of seeking an adequate solution. If, however, memory does not provide a satisfactory solution, the consumer will engage in an external search for information to supplement, revise, or replace stored information.

External Search

Once the decision to engage in external search is made, the consumer will begin the process of information acquisition, which involves both physical and mental activity. External search represents a conscious effort to gather new information. Early in the external search process, the consumer will perform a preliminary search. The purpose of this activity is to identify alternatives and compare the attributes of these alternatives with a desired set of attributes. This preliminary sampling ordinarily results in a reconciliation of what is desired with what is perceived as being available. When full-scale external search begins, the consumer makes a concerted effort to match the desired set of attributes with those actually available. To accomplish this goal, information

is sought by communicating with significant others, monitoring advertisements, visiting retail stores, and a variety of other behaviors directed toward the acquisition of information.[1]

Theoretical Approaches. The notion that some consumers engage in more extensive search than others is empirically well documented. Several alternative theoretical explanations of these differences provide the basis for empirical research on prepurchase search behavior. Melvin T. Copeland[2] is credited with providing one of the earliest explanations. The idea of differences in search patterns was central to this classification of products scheme.

Copeland's typology of products relates goods to the degree of prepurchase search activity undertaken by consumers. He agrued that goods could be grouped into three categories, which he defined as follows:

> Convenience goods are those customarily purchased at easily accessible stores; . . . The unit price for most articles in this class is too small to justify the consumer's going far out of his way or incurring the expense of a streetcar fare in order to procure a special brand.[3]

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[1]Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination," p. 276.

[2]Melvin T. Copeland, "Relation of Consumers' Buying Habits to Market Methods," Harvard Business Review, 1 (April 1923): 282-289.

[3]Ibid., p. 282.

Shopping goods are those for which the consumer desires to compare prices, quality, and style at the time of purchase. Usually the consumer wishes to make this comparison in several stores.[1]

Specialty goods are those which have some particular attraction for the consumer, other than price, which induces him to put forth special effort to visit the store in which they are sold and to make the purchase without shopping. . . ."[2]

Other writers have suggested that differences in prepurchase search activity can be explained by the cost-benefit hypothesis, which assumes that consumers assign values to both the costs and benefits of search. The proponents of this theoretical approach posit that consumers continue to search as long as they feel the benefits of an additional unit of search equal or outweight the costs. From this theoretical perspective, differences in search behavior occur because of individual differences in the values assigned to the costs of search.[3]

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[1]Ibid., p. 283

[2]Ibid., p. 284

[3]Louis P. Bucklin, "Retail Strategy and the Classification of Consumer Goods," Journal of Marketing 27 (January 1963):50-55; Louis P. Bucklin, "Testing Propensities to Shop, "Journal of Marketing 30 (January 1966): 20-27; John U. Farley, "Brand Loyalty and the Economics of Information," Journal of Business 37 (October 1964): 370-379; Richard H. Holton, "The Distinction Between Convenience Goods, Shopping Goods, and Specialty Goods," Journal of Marketing 23 (July 1958): 53-56; and George J. Stigler, "The Economics of Information," The Journal of Political Economy 69 (June 1961): 213-225.

A somewhat similar approach has explained prepurchase search in terms of the perceived risk associated with the purchase situation. According to the theory, while perceived risk consists of both uncertainty and consequences of error, only uncertainty seems to be susceptible to reduction through the acquisition of information. Since people vary in their ability to tolerate uncertainty, the amount of information sought will vary from one individual to another.[1]

Some writers have explained prepurchase search in terms of learning and experience. Howard and Sheth are among those who emphasize this theoretical approach.[2]

They theorized that consumers pass successively through stages of extensive problem solving, limited problem solving, and routinized response behavior as experience grows and they learn more about products and brands and develop choice criteria and brand preferences. Similarly, as experience with other product categories grows, generalization may occur.

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[1]Bauer, "Consumer Behavior as Risk Taking," pp. 389-398.

[2]Howard and Sheth, The Theory of Buyer Behavior.

Engel, Blackwell, and Kollat offered the same classification of three levels of search. They have suggested that the purpose of search may vary between extended problem solving and limited decision-process behavior. More specifically, in extended problem solving stored information is inadequate to identify alternatives without extended search. In contrast, in limited decision-process behavior information is sought only to help clarify the characteristics of a known set of alternatives.[1]

In contrast to the aforementioned univariable theoretical approaches, some writers have recognized variations among consumers and situational aspects which affect prepurchase search behavior. Consequently, several multivariable theories have been offered by scholars such as Bucklin[2], Groeneveld[3], Kaish[4], Katona and Mueller[5],

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d. ed.

[2]Bucklin, "Retail Strategy and the Classification of Consumer Goods," pp. 50-55.

[3]Leonard Groeneveld, "A New Theory of Consumer Buying Intent," Journal of Marketing 28 (July 1964): 23-28.

[4]Stanley Kaish, "Cognitive Dissonance and the Classification of Consumer Goods," Journal of Marketing 31 (October 1967): 28-31.

[5]George Katona and Eva Mueller, "A Study of Purchase Decisions," in Consumer Behavior: The Dynamics of Consumer Reaction, ed. Lincoln Clark, (New York: New York University Press, 1954), pp. 30-87.

Kelly[1], and Ratchford and Andreasen.[2] Collectively, these multivariable theories hypothesize that prepurchase search will vary directly with the number of salient attributes used to judge the product; the importance attributed to the product category; the perception of self as a deliberate decison maker; the availability of information; the depth of product assortment available; the degree of differentiation among available alternatives; the frequency of change in price, styles, and product technology; the price; the size or physical bulk of the product; the length of the product life; the observability of product differences; the social conspicuousness; and the complexity or number of attributes the product possesses. Conversely, these multivariable theories hypothesize that prepurchase search will vary inversely with purchase frequency; the number of objective criteria, and the existence of a preference map.[3]

The number and diversity of variables hypothesized to

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[1]Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination," pp. 273-279.

[2]Brian T. Ratchford and Alan R. Andreasen, "A Study of Consumer Perceptions of Decisions," in Advances in Consumer Research, Vol. 1, eds. Scott Ward and Peter Wright, Proceedings of the 4th Annual Conference of the Association for Consumer Research, 1973 (Urbana, IL: Association for Consumer Research, 1974), pp. 334-345.

[3]Donald H. Granbois, "Shopping Behavior and Preferences," in A Synthesis of Selected Aspects of Consumer Behavior, ed. Robert Ferber, (Washington, D.C.: National Science Foundation, 1976); pp. 261-262.

influence prepurchase search by the various theoretical approaches is large. In the discussion which follows, these variables will be identified and examined along with related empirical research.

Determinants of External Search

As previously mentioned, the extent of external search activities depends upon the consumer as well as the nature of the problem situation. While there are numerous factors which affect search behavior, these factors can be grouped into four categories: the perceived value of search, the perceived cost of search, individual propensities to search, and situational variables.

Whenever consumers engage in external search activities, they must somehow balance the costs and benefits of search. Essentially, the amount of information sought is a function of comparing the perceived value with the perceived cost of search. Generally, when high value is accompanied with low cost, the consumer will engage in extensive information acquisition behavior. However, when the cost is high and the value of search is low, little search activity will occur.[1]

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed. p. 238; Hempel, "Search Behavior and Information

In addition to the perceived value and cost of search, information acquisition behavior is also influenced by the individual consumer's propensity to search, which is a function of personality characteristics, demographic characterisitcs, and family role structure. Finally, a number of situational factors can influence the extent of external search. For example, a special buying opportunity or an urgent need can serve to shorten the search process.

Perceived Value: Quality and Quantity of Existing Information. The perceived value of search is determined by the utility of information, which is influenced by a number of factors. One set of factors includes the amount of information stored in memory, the quality of stored information, ability to recall stored information, and confidence in decision-making ability.

Knowledge and past experience related to a product field and specific brands in the field are two interrelated determinants which affect the perceived value of search. It would seem that when consumers know the product and have clear decision criteria, they would search less. Unfortunately, direct evidence supporting this hypothesis is almost nonexistent. A Bayesian type procedure for measuring

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Utilization in the Home Buying Process," p. 244; Markin, Consumer Behavior, p. 510; and Runyon, Consumer Behavior, p. 329.

consumers' prior brand information has been developed by Woodruff,[1] but applications relating prior knowledge to external search have not been reported. Several researchers have, however, studied the hypothesis that search is more extensive when the consumer starts with no initial preference map. Bucklin,[2] for example, found that purchasers of nonfood products showed a slight tendency to make fewer shopping trips when they knew all the features they wanted, the preferred brand and store. Similarly, Newman and Staelin[3] found that consumers considering more than one brand of an appliance visited more stores and used more additional sources of information than did those who sought a single brand. In contrast, Katona and Mueller[4] discovered no difference between initial preference and information search for buyers of major appliances.

While evidence supporting the relationship between prior knowledge and search is limited, findings relating

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[1]Robert B. Woodruff, "Measurement of Consumer's Prior Brand Information," Journal of Marketing Research 9 (August 1972):258-263.

[2]Bucklin, "Testing Propensities to Shop," pp. 22-27.

[3]Joseph W. Newman and Richard Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," Journal of Marketing Research 9 (August 1972): 249-257.

[4]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

experience, a proxy for knowledge, to search are more substantial. Consumers learn from past behavior and tend to become more proficient over time. Consequently, experience or previous learning that has transfer value may affect the extent of search activity. Research findings have shown that the presence and the extent of search varies inversely with the length and breadth of experience. More specifically, the longer alternative products and brands have been purchased, the lower the tendency to search. For example, in a study of home buyers, Hempel[1] found more active information seeking if the buyers were purchasing their second home rather than their first or third. Similarly, in a study of new car purchasers, Bennett and Mandell[2] found that the larger the number of previous purchases of the brand that was ultimately purchased and the larger the number of sequential purchases of that brand, the less search that took place. In contrast, buying experience, as measured by the total number of previous auto purchases, was not related to the extent of search.

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[1]Donald J. Hempel, "Search Behavior and Information Utilization in the Home Buying Process," pp. 241-249.

[2]Peter D. Bennett and Robert M. Mandell, "Prepurchase Information Seeking Behavior of New Car Purchasers--The Learning Hypothesis," Journal of Marketing Research 6 (November 1969): 430-433.

While knowledge and past experience represent two important determinants of the perceived value of search, stored information is not always appropriate for a given problem situation. Another interrelated set of determinants of the perceived value of search is the quality of stored information. The quality or utility of stored information is affected by satisfaction with previous purchase experiences, the amount of time that has elapsed between purchases, and the number of changes that have taken place in the mix of alternatives.

Satisfactory experience appears to be an important determinant of search. More specifically, when past experience with a product has been less than satisfactory, there is a greater propensity to search for new information when the same problem is recognized. Research studies have generally supported the hypothesis that satisfactory experience in using and buying a product results in learning that is used to reduce search. Newman and Staelin,[1] for example, found that product satisfaction and purchasing experience interacted to substantially reduce purchase decision times for cars and appliances. They also showed a weak inverse relationship between information seeking and

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[1]"Joseph W. Newman and Richard Staelin, "Multivariate Analysis of Differences in Buyer Decision Time," Journal of Marketing Research 8 (May 1971): 191-198.

satisfaction with the old product.[1] Similarly, Katona and Mueller,[2] found less information seeking among buyers satisfied with a product owned previously, whereas dissatisfied previous owners and persons who lacked experience with the product tended to be more active information seekers. In contrast, Claxton, Fry, and Portis[3] found that prior product use made little difference in the amount of search for appliances. They did not, however, make a distinction between satisfactory and unsatisfactory experience.

Not only is the quality of stored information affected by satisfaction with previous purchase experiences, but it is also affected by the amount of time that elapses between purchases. The more infrequently a product is purchased, the greater the probability that the consumer will engage in search activity.[4]

Finally, it has been hypothesized that changes in the mix of alternatives, such as price and style changes as

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[1]Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," pp. 249-257.

[2]Katona and Mueller, A Study of Purchase Decisions," pp. 30-87.

[3]John D. Claxton, Joseph N. Fry, and Bernard Portis, "A Taxonomy of Prepurchase Information Gathering Patterns," Journal of Consumer Research 1 (December 1974):35-42.

[4]Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination," p. 277.

well as new product introductions, tend to affect the quality of stored information. The more frequently these variables change, the greater the propensity to search for new information.[1]

The perceived value of search is not only affected by the amount and utility of stored information, but it is also affected by the consumer's ability to recall relevant information. Research has shown that different consumers vary concerning their ability to recall stored information. Some consumers are levelers, whereas others are sharpeners. Leveling--sharpening refers to the cognitive process of assimilating new information with old. Levelers tend to minimize differences in new information in order to assimilate that information with stored information. In contrast, sharpeners tend to maximize differences between new information and stored information. Generally, sharpeners sustain recoverable stored information in an unaltered form over a longer period of time than levelers.[2] Similarly, research has shown that recall is also affected by the degree to which a current problem is similar to

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed. p. 239.

[2]Kenneth A. Coney, "Leveling--Sharpening: A Cognitive Control Approach to Consumer Information Recall," in Marketing in Turbulent Times and Marketing: The Challenges and the Opportunities, ed. Edward M. Mazze, (Chicago: American Marketing Association, 1975), pp. 162-166.

those which have arisen in the past.[1] Finally, the consumer's ability to recall information is also affected by interpurchase time. The greater the time that has elapsed since the problem was last encountered, the higher the propensity to search.[2]

Another factor related to the utility of stored information is the confidence that consumers have in their decision-making ability. Compared to other determinants of search, confidence in decision-making ability has received less attention from writers and researchers. Consequently, empirical evidence on this determinant and its role in buying decisions is still meager. As a generalization, however, search for outside information becomes more important when confidence is low, regardless of the quality and amount of stored information.[3]

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[1]Frederick E. May, "Adaptive Behavior in Automobile Brand Choices," Journal of Marketing Research 6(February 1969): 63-65; and John E. Swan, "Experimental Analysis of Predecision Information Seeking," Journal of Marketing Research 6(May 1969): 194-196.

[2]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed. p. 239.

[3]Peter D. Bennett and Gilbert Harrell, "The Role of Confidence in Understanding and Predicting Buyer's Attitudes and Purchasing Intentions," Journal of Consumer Research 2 (September 1975): 110-117; and Donald R. Lehmann, Terrence V. O'Brien, John U. Farley, and John A. Howard, "Some Empirical Contributions to Buyer Behavior Theory," Journal of Consumer Reserach 1 (December 1974):43-55.

Thus far in this discussion of the perceived value of search, attention has been focused on the utility of existing information. As a determinant of search, stored information is affected by a number of factors, such as knowledge, satisfactory past experience, interpurchase time, changes in the mix of alternatives, ability to recall stored information, and confidence in decision-making ability. In the next section, another important determinant of the preceived value of search is identified and examined along with related empirical research.

Perceived Risk. The concept of perceived risk provides the basis for one theoretical explanation of search. In other theoretical models, such as the cost-benefit and the multivariable approaches, it has been identified as an important determinant of search. Regardless of the theoretical approach being used, the degree of perceived risk associated with the problem being solved affects the perceived value of search.

Perceived risk is individualistic, varying in intensity from one person to another, and also varying over time for a given individual. While most purchase situations activate little or no perceived risk, it is possible for any given purchase problem to contain an element of risk.[1]

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p. 240; and Markin, Consumer Behavior, p. 529.

Several researchers have found that the amount as well as the type of risk varies by product.[1] Other have shown that perceived risk is often associated with inexpensive products, such as headache remedies, fabric softeners, and spaghetti,[2] as well as with more expensive products, such as automobiles.[3] Research has also shown that certain products and categories of products are viewed by consumers as being more risky than others.[4]

Perceived risk may be finanical, psychological, social, or physical in nature. It may even be a combination of some or all of these forms. In coping with perceived risk, consumers use a variety of strategies. One of the most important risk reduction strategies is the acquisition of external information. The tendency to acquire information depends directly upon the amount of perceived risk. As a generalization, the greater the degree of perceived risk of an unsatisfactory search

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[1]Perry and Hamm, "Canonical Analysis of Relations between Socioeconomic Risk and Personal Influence in Purchase Decisions," pp. 351-354.

[2]Cunningham, "The Major Dimensions of Perceived Risk," p. 107.

[3]Bauer, "Consumer Behavior as Risk Taking," p. 398.

[4]Cox and Rich, "Perceived Risk and Consumer Decision Making--The Case of Telephone Shopping," pp. 32-39; and Fred D. Reynolds, "An Analysis of Catalog Buying Behavior," Journal of Marketing 38(July 1974):47-51.

outcome for a given purchase situation, the greater the propensity to search until enough information has been gathered to reduce the perceived risk to an acceptable level.[1]

Research has identified a number of determinants of perceived risk. Generally, these determinants relate to product characteristics, situational variables, consumer characteristics, or environmental conditions. Missing from the literature, however, are attempts to study the influence of perceived risk on the amount of total search by directly measuring perceived risk. Instead, reliance has been placed on proxies, as discussed in the following material.

One factor shown to influence perceived risk is the price of the product. As a generalization, the higher the price and the greater the financial risk, the more likely it is that the consumer will engage in an extensive search for information. A number of studies support this hypothesized direct relationship between price and search.[2]

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed. p. 240; Granbois, "The Role of Communication in the Family Decision-Making Process," p. 52; Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination," p. 277; and Markin, Consumer Behavior, pp. 511-512.

[2]William P. Dommermuth, "The Shopping Matrix and Marketing Strategy," Journal of Marketing Research 2(May 1965): 128-132; Katona and Mueller, "A Study of Purchase

While it appears intuitively obvious that perceived risk and subsequent search activity would be greater for expensive items such as homes, automobiles, and major appliances, this relationship has not always held true. For example, in a study of home buyers, Norris found a curvilinear relationship between intensity of search and price, that is, buyers of middle price range homes engaged in more extended search than buyers of either higher or lower price range homes.[1] Similarly, Newman and Staelin found a substantial increase in information search accompanied an increase in price for car buyers who considered several makes at the outset, but for car buyers who initially considered just one make, price had little or no effect on search. Likewise, price has little effect on search for buyers who initially considered just one make of a major appliance.[2] Finally, other researchers have found

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Decisions," p. 46; Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Apppliances," pp.249-257; Jon G. Udell, "Prepurchase Behavior of Buyers of Small Electrical Appliances," Journal of Marketing 30(October 1966):50-52

[1]Ruby T. Norris, "Processes and Objectives in Home Purchasing in the New London Area," in Consumer Behavior: The Dynamics of Consumer Reaction, ed. Lincoln Clark, (New York: New York University Press, 1954), pp. 25-29.

[2]Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," pp. 249-257.

a high level of search activity associated with relatively inexpensive items, including food, soft goods, and household items such as small electrical appliances.[1] For example, surveys have shown that the number of stores visited and/or the number of shopping trips made before purchasing tends to increase with item price for nonfood items costing more than $5,[2] women's apparel,[3] and girls' outerwear.[4]

In many purchase situations the cost of the product is only one factor in determining the perceived risk of the entire purchase decision. Another factor shown to influence perceived risk is the length of time the consumer will be committed to the choice. More specifically, perceived risk as well as search activity will increase as the period of time the consumer is committed to use the product increases.[5]

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[1]Farley, "Brand Loyalty and the Economics of Information," pp. 370-379; and Udell, "Prepurchase Behavior of Buyers of Small Electrical Appliances," pp. 50-52.

[2]Bucklin, "Testing Propensities to Shop," pp. 22-27.

[3]William P. Dommermuth and Edward W. Cundiff, "Shopping Goods, Shopping Centers, and Selling Strategies," Journal of Marketing 31 (October 1967): 32-36.

[4]Jerry Williams and Rachel Dardis, "Shopping Behavior for Soft Goods, and Marketing Strategies," Journal of Retailing 48 (Fall 1972): 32-41, 126.

[5]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p. 241; Granbois, "The Role of Communication in the

The social visibility of a product is also a factor that affects perceived risk. In other words, the more conspicuous a product is to others and the more likely the risk of social rejection, the greater the propensity to engage in an extensive search for additional information about that product.[1] When style and appearance is especially important, search, as measured by the number of stores visited, tends to be high. Empirical evidence exists for furniture,[2], cars,[3] and items of apparel.[4] For example, in a study of telephone shopping Cox and Rich found a number of apparel items identified as being high in perceived risk. Similarly, in a survey covering 15 soft

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Family Decision-Making Process," p. 50; and Katona and Mueller, "A Study of Purchase Decisions," p. 46.

[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3rd ed. p. 241; Granbois, "The Role of Communication in the Family Decision-Making Process," p. 53; and Robert F. Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination," p. 277.

[2]Claxton, Fry, and Portis, "A Taxonomy of Prepurchase Information Gathering Patters," pp. 35-42; and Bruce Le Grand and John G. Udell, "Consumer Behavior in the Market Place--An Empirical Study in the Televison and Furniture Fields with Theoretical Implications," Journal of Retailing 40 (Fall 1964): 32-40, 47-48.

[3]Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," pp. 249-257.

[4]Cox and Rich, "Perceived Risk and Consumer Decision--Making--The Case of Telephone Shopping," pp. 32-39; and Dommermuth and Cundiff, "Shopping Goods, Shopping Centers, and Selling Strategies," pp. 32-36.

goods, these same apparel items were found by Dommermuth and Cundiff to have relatively high proportions of buyers visiting more than one retail store before purchasing. In general, products for which fashion and style are important were more likely to involve multistore shopping.

A related determinant of perceived risk and search involves purchase decisions that differ from important reference groups. More specifically, it has been hypothesized that perceived risk and the subsequent amount of search activity will tend to increase when the consumer knows that a purchase will differ from that of an important reference group.[1]

The potential of harmful or undesirable physiological effects associated with the use or consumption of some products and services is another factor that affects perceived risk. For example, the purchase and usage of medication has the potential for physiological side effects.[2] Similarly, the selection and utilization of the services of a physician also represents the potential for harmful or

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[1]Granbois, "The Role of Communication in the Family Decision-Making Process," p. 54.

[2]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed. p. 241; and James F. Engel, David A. Knapp, and Deanne E. Knapp, "Sources of Influence in the Acceptance of New Products for Self-Medication: Preliminary Findings," in Science, Technology and Marketing, ed. Raymond M. Haas, (Chicago: American Marketing Association, 1966), p. 777.

undesirable physiological effects.[1]

Another factor shown to affect perceived risk is related to the number of separate decisions required during a single purchase situation. In other words, some buying decisions, such as the purchase of an automobile, require decisions regarding brand, size, style, color, so forth. Generally, when a purchase requires multiple decisions, perceived risk tends to increase and the consumer is more likely to engage in a search for additional information.[2]

In addition to the above mentioned factors, perceived risk is also affected by the consumer having little relevant or satisfactory past experience with the purchase situation, the anticipation of important changes in the consumer's economic or political environment, the purchase being discretionary rather than necessary, the importance

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[1]Sidney P. Feldman, "Some Dyadic Relationships Associated with Consumer Choice," in Science, Technology and Marketing, ed. Raymond M. Haas, (Chicago: American Marketing Association, 1966), pp. 760-761; also see Sidney P. Feldman and Merlin C. Spencer. "The Effect of Personal Influence in the Selection of Consumer Services," in Marketing and Economic Development, ed. Peter D. Bennett, (Chicago: American Marketing Association, 1965), pp. 440-452.

[2]Cox and Rich, "Perceived Risk and Consumer Decision Making-The Case of Telephone Shopping," pp. 32-39; Dommermuth, "The Shopping Matrix and Marketing Strategy," p. 130; and Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p. 241.

of the purchase, and the intensity of need.[1] In each of these situations, as perceived risk increases, the higher the propensity for increased search activity.

Finally, it has been hypothesized that perceived risk and the subsequent amount of search tends to increase when the given alternatives possess both positive and negative attributes.[2] Bucklin, for example, found a positive correlation between perceived price dispersion and the number of stores patronized, in a study of food buying.[3] In another study, Claxton, Fry, and Portis found the percentages of furniture and appliance buyers perceiving substantial product differences to be higher for those who made an abnormally high number of store visits.[4]

As previously mentioned, the various factors affecting search behavior can be grouped into four categories. Thus far, factors influencing the perceived value of search has

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[1]Granbois, "The Role of Communication in the Family Decision-Making Process," pp.53-54; and Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination", p. 277.

[2]Granbois, "The Role of Comminication in the Family Decision-Making Process, pp. 53-54.

[3]Louis P. Bucklin, "Consumer Search, Role Enactment, and Market Efficiency," Journal of Business 42 (October 1969): 416-438.

[4]Claxton, Fry, and Portis, "A Taxonomy of Prepurchase Information Gathering Patterns," pp.35-42.

been the focus of discussion. In the next section, attention is focused on identifying and examining factors that affect the perceived cost of search.

Perceived Cost of Search. The perceived cost of search is a function of several factors including time, effort, and any financial costs incurred during the search for information. Further, search cost also includes psychological considerations, deprivation of benefits resulting from decision delay, and information overload. In short, all search involves some cost.[1]

Compared to research investigating the factors which affect the perceived value of search, few empirical findings have been reported on search cost. Generally, studies of search cost tend to support the hypothesis that it is a constraining factor. Missing from the literature are attempts to measure cost directly. Instead, cost has been inferred and reliance has been placed on proxies.

One important set of determinants affecting the perceived cost of information search is represented by the amount of time, effort, and expenditure of money that may be incurred in search activity. All searching involves some expenditure of time and effort that might be spent

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p. 242; Runyon, Consumer Behavior, p. 329; and Stigler, "The Economics of Information," pp. 213-225.

otherwise. Consequently, the more a consumer's choices lean toward repeat purchases in a product category, the less time and effort that individual will spend in active search.[1] Similarly, time and effort has been found to be related to the number of stores visited. For example, in a study of shopping for nonfood items costing $5 or more, Bucklin found that buyers visited more stores in large shopping areas because it was easier for them to do so than in smaller retail centers.[2] Dommermuth and Cundiff, in a study of soft goods, found a similar relationship between the number of stores visited and the size of the shopping area for apparel buyers.[3] Finally, Bucklin found a small but positive correlation between the number of food stores visited and the use of the automobile in shopping.[4]

Frequently, financial outlays accompany the expenditure of time and effort, especially when search activity requires visits to stores or dealers, purchase of

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[1]Bennett and Mandell, "Prepurchase Information Seeking Behavior of New Car Purchasers - The Learning Hypothesis," pp. 430-433; Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," pp. 249-257; and Stigler, "The Economics of Information." pp. 213-225.

[2]Bucklin, "Testing Propensities to Shop," pp. 22-27

[3]Dommermuth and Cundiff, "Shopping Goods, Shopping Centers, and Selling Strategies," pp. 32-36

[4]Bucklin, "Consumer Search, Role Enactment, and Market Efficiency," pp. 416-438.

magazines, and so on. Transportation costs alone can often exceed the value of the information obtained. In view of this fact, consumers often minimize search costs by using the telephone to acquire information,[1] limiting their attention to a familiar brand, and choosing to pay an average price.[2]

While outlays of time, effort, and money are obvious costs of search, less apparent but of equal or greater importance to the consumer are the psychological costs of frustration, tension, and annoyance associated with visiting stores, dealers, shopping centers and so on. Often, these psychological costs are perceived to outweight the benefits of search.[3]

A similar type of psychological cost is the frustration that results from decision delay. The longer a consumer spends acquiring information, the longer the consumer delays the choice and purchase as well as the benefits of owning and using the product. In view of this perceived cost, some buyers shorten the search process in order to reduce this cost, especially as the alternatives become

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed. p. 242.

[2]Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," p. 251.

[3]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p. 243.

increasingly clear.[1]

It has been noted that consumers incur certain costs in seeking out information. In addition to the above mentioned costs, research has shown that information overload can also be a cost of search. This research has sought to demonstrate that there are finite limits on the quantity of information that can be absorbed and utilized. Once this hypothesized point at which an individual feels confronted with an overwhelming load of information is passed, frustrations mount and decision-making ability may be deterred.[2]

Individual Differences in Propensity to Search

This discussion of the determinants of external search has thus far focused on the factors which influence the

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[1]Bauer, "Consumer Behavior as Risk Taking," p. 390.

[2]Bobby J. Calder, "Some Methodological Considerations in Investigating Consumer Information Processing," in Marketing in Turbulent Times and Marketing: The Challenges and the Opportunities, ed. Edward M. Mazze, (Chicago: American Marketing Association, 1975), pp. 167-169; Engel Blackwell, and Kollat, Consumer Behavior, 3d ed. p. 242; Jacob Jacoby, Donald E. Speller, and Carol A Kohn, "Brand Choice Behavior as A Function of Information Load," Journal of Marketing Research 11(February 1974):63-69; and Jacob Jacoby, Donald E. Speller, and Carol A. Kohn Berning. "Brand Choice Behavior as a Function of Information Load: Replication and Extension," Journal of Consumer Research 1(June 1974):33-42.

perceived value of search and the perceived cost of search. These factors are known to affect search behavior; they are, however, generalizations. It is also important to recognize that the extent of search activities depends on the individual consumer. More specifically, individual consumers have different search styles, that is, differences exist in the type, intensity, complexity and duration of search. While there are many variables which are likely to influence the search style of an individual consumer, three useful sets of explanatory variables are personality characteristics, demographic characteristics, and family role structure.[1]

Personality Characteristics. It has been well established that different consumers have different personalities. Some people enjoy shopping and searching for information; they show a marked tendency to seek more information simply because these activities are perceived by these individuals as being pleasurable. Conversely, other people find shopping and searching for information a chore, deriving little or no pleasure from these activities and may actually avoid them. In general, those who enjoy

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., pp. 243-244; Hempel, "Search Behavior and Information Utilization in the Home Buying Process," p. 244; Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination," p. 278; and Stigler, "The Economics of Information," p. 218.

shopping tend to have a higher propensity for search activities.[1] In a study of fashion shopping, Rich and Jain[2] found no relationship between either social class or life-cycle stage and shopping enjoyment. Instead, they found that shopping enjoyment was strong for all social classes and life-cycle stages. They did, however, note that the relative importance of reasons for enjoying shopping varied somewhat with social class. Enjoyment of shopping trips that involved gratifications considerably beyond the primary functions of search and exchange was noted by Tauber,[3] who identified personal as well as social motives for shopping. Personal motivies include diversion and recreation, self-gratification and reward, learning about new trends, physical activity or exercise, sensory stimulation, and the satisfaction of performing an activity viewed as an integral part of one's role. Social motives included social experiences such as encounters with friends, watching other people, communication with others having similar interests, peer-group attraction, and the

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[1]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87; Markin, Consumer Behavior, p. 511; and Runyon, Consumer Behavior, p. 329.

[2]Stuart U. Rich and Subhash C. Jain, "Social Class and Life Cycle as Predictors of Shopping Behavior, "Journal of Marketing Research 5(February 1968):41-49.

[3]Edward M. Tauber, "Why Do People Shop?," Journal of Marketing 36(October 1972):46-49.

opportunity to command attention and respect as a result of being waited on, as well as the pleasure derived from bargaining.

The notion that search styles are related to personality characteristics has received considerable attention in the literature. For example, Bauer contends that consumers search for information in a manner that is compatible with their individual risk-taking propensities.[1] In contrast, Nicosia views the consumer's propensity to search as being affected by a number of social psychological variables, with the individual's ability to handle risk, uncertainty, and ambiguity as being only one of those variables.[2] In terms of characterizing consumers with regard to their propensity to search, Cox classifies information seekers as either clarifiers or simplifiers. Clarifiers seek additional information in order to better understand the problem situation; whereas, simplifiers tend to selectively reject incongruous information.[3] This notion is supported by Mazis, who found that some people avoid novel information in order to develop a simplified

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[1]Bauer, "Consumer Behavior as Risk Taking," p. 390.

[2]Nicosia, Consumer Decision Processes, pp. 173-174.

[3]Donald F. Cox, Risk Taking and Information Handling in Consumer Behavior, (Boston, MA: Graduate School of Business Administration, Harvard University, 1967), pp. 67-70, 79-80.

cognitive picture, while others seem more receptive to novel information.[1]

One of the first studies to explore personality as a determinant of search behavior was conducted by Evans,[2] who identified two extremes of automobile shopping behavior. One extreme is characterized by buyers who select both make and dealer in advance and thus visit a single dealer; the other extreme is characterized by buyers who select neither in advance and thus comparison shop for both brands and price. Evans found that shoppers were higher than nonshoppers in change, deference, aggression, and affiliation.

Similarly, different distributions of shopping types across product categories was found by Dommermuth[3] in a study of recent purchasers of refrigerators, televisions,

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[1]Michael B. Mazis, "Decision-Making Role and Information Processing," Journal of Marketing Research 9(November 1972):447-450.

[2]Franklin B. Evans, "Psychological and Objective Factors in the Prediction of Brand Choice," Journal of Business 32(October 1959): 340-369; and Franklin B. Evans, "Correlates of Automobile Shopping Behavior," Journal of Marketing 26(October 1962): 74-77; also see Joseph R. Murphy, "Questionable Correlates for Automobile Shopping Behavior," Journal of Marketing 27(October 1963): 71-72: and Franklin B. Evans, "True Correlates of Automobile Shopping Behavior," Journal of Marketing 28(January 1964):65-66.

[3]Dommermuth, "The Shopping Matrix and Marketing Strategy," pp. 128-132.

washing machines, vacuum cleaners, and irons. Classification of shoppers ranged from the one-brand, one-store shopper to the shopper who visited several stores and examined several brands.

Three distinct food shopping strategies, measured by the number of stores visited in a single shopping trip, were identified by Thompson.[1] The three strategies include single-store shoppers (54 percent), those who visited two or more stores (37 percent), and those who shopped around with little consistent pattern (9 percent).

In a another study of food shopping, Bucklin[2] identified three different personality profiles related to varying degrees of search activity. Submissive wives, those oriented to the welfare of husband and children, revealed the greatest inclination to search for information by looking through newspaper food advertisements. Traditionalists, those who tended to buy and prepare food based on their parents' patterns, were less likely to read the advertisements. And liberated women, those interested in politics and uninterested in household chores, exhibited the least concern with search behavior in food shopping.

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[1]Bryan Thompson, "An Analysis of Supermarket Shopping Habits in Worcester, Massachusetts, "Journal of Retailing 43 (Fall 1967):17-29.

[2]Bucklin, "Consumer Search, Role Enactment, and Market Efficiency," pp. 416-438.

In sum, research has shown that consumers who tend to be open-minded are more information sensitive. People who are sensitive to information also tend to be more confident in the control they have over their environment.[1]

Demographic Characteristics. In addition to personality, variations in search behavior have also been shown to be somewhat associated with demographic attributes such as, the buyer's age, education, income, occupation, and social class, as well as stage in the family life cycle. These relationships, however, tend to be inconsistent. For example, Miller and Zikmund[2] analyzed the food shopping habits of women in Oklahoma City and found several shopping patterns, each related to a unique socio-economic and demographic profile. In contrast, MacKay[3] analyzed the food shopping frequency of housewives and found very small differences in the mean number of shopping trips for different demographic groups. Similar findings

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[1]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p. 243.

[2]Stephen J. Miller and William G. Zikmund, "A Multivariate Analysis of Prepurchase Deliberation and External Search Behavior," in Advances in Consumer Research, Vol. 2, ed. Mary J. Schlinger, (Chicago:Association for Consumer Research, 1975; pp. 187-196.

[3]David B. MacKay, "A Spectral Analysis of the Frequency of Supermaket Visits," Journal of Marketing Research 10(February 1973):84-90.

were reported by Hempel,[1] who studied home buyers and found nonlinearities in the relations between deomgraphic characteristics and the extent of search behavior.

The relationship between age and information seeking has been found to vary from one product group to another. More specifically, direct relationships have been found for buyers of automobiles[2] and food.[3] In contrast, for buyers of homes[4] and major appliances,[5] the intensity of search has been found to be inversely related to age.

Several studies support the proposition that the propensity to search for information is directly related to education; the evidence, however, is not unanimous. Direct relationships, for example, have been found for buyers of

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[1]Hempel, "Search Behavior and Information Utilization in the Home Buying Process," pp. 241-249.

[2]Evans, "Correlates of Automobile Shopping Behavior," pp. 74-77.

[3]V. Kanti Prasad, "Correlates of Multistore Food Shopping," Journal of Retailing 48 (Summer 1972): 74-81.

[4]Hempel, "Search Behavior and Information Utilization in the Home Buying Process," pp. 241-249.

[5]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

durables[1] such as automobiles,[2] furniture and appliances,[3] homes in the middle price range,[4] and household appliances.[5] Similar results were also reported by Gillett[6] who analyzed mail and telephone order purchases and found that in-home shoppers were also active store shoppers and tended to be better educated than buyers who were exclusively store shoppers. Somewhat different results were noted by Peters and Ford[7] in a comparison of heavy cosmetic buyers, they found that store shoppers had more education than customers of door-to-door firms.

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[1]Jack L. Engledow, Hans B. Thorelli, and Helmut Becker, "The Information Seekers-A Cross-Cultural Consumer Elite," in Advances in Consumer Research, Vol. 2, ed. Mary J. Schlinter, (Chicago: Association for Consumer Research, 1975): 141-155.

[2]Evans, "Psychological and Objective Factors in the Prediction of Brand Choice," pp. 340-369; and Evans, "Correlations of Automobile Shopping Behavior," pp. 74-77.

[3]Claxton, Fry, and Portis, "A Taxonomy of Prepurchase Information Gathering Patterns," pp. 35-42.

[4]Hempel, "Search Behavior and Information Utilization in the Home Buying Process," pp. 241-249.

[5]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

[6]Petter L. Gillett, "A Profile of Urban In-home Shoppers," Journal of Marketing 34 (July 1970):40-45.

[7]William H. Peters and Neil M. Ford, "A Profile of Urban In-home Shoppers: The Other Half," Journal of Marketing 36(January 1972):62-64.

While direct relationships between education and the extent of search have been reported for numerous purchase situations, several studies have noted relationships that were either inverse or more complex. Katona and Mueller,[1] for example, found that buyers of sport shirts with little education tended to deliberate more than buyers with more education. A more complex relationship was found by Newman and Staelin,[2] who studied the amount of information sought by buyers of new automobiles and major household appliances. While predominately positive relationships between education and both the amount of information seeking and the number of source types consulted were found, the relationships were not strictly monotonic nor linear. More specifically, consumers with education less than high school search less than consumers with an education beyond high school, however, there are no differences among consumers with varying degrees of education beyond high school.

Education's correlate, income, has also been found to be related to search. Direct relationships have been

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[1]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

[2]Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," pp. 251-255; and Joseph W. Newman and Richard Staelin, "Information Sources of Durable Goods," Journal of Advertising Research 13 (April 1973):19-29.

reported for buyers of furniture and appliances,[1] as well as for in-home shoppers.[2] In contrast, income has been found to be inversely related to search and shopping time for buyers of automobiles,[3] food, drugs, hardware, and clothing.[4] A curvilinear relationship between income and intensity of search has been reported for buyers of major appliances[5] and homes,[6] with the greatest amount of search among upper-middle income purchasers as opposed to either a higher or lower income category. Finally, in a study of television buyers, Riter[7] discovered that income was unrelated to the number of stores shopped.

Occupation is another demographic variable that has been related to information seeking, but, like the other

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[1]Claxton, Fry, and Portis, "A Taxonomy of Prepurchase Information Gathering Patterns," pp. 35-42.

[2]Gillett, "A Profile of Urban In-home Shoppers," pp. 40-45.

[3]Evans, "Correlations of Automobile Shopping Behavior," pp. 74-77.

[4]J. Barry Mason and Morris L. Mayer, "The Problem of the Self-Concept in Store Image Studies," Journal of Marketing 34 (April 1970):67-69.

[5]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

[6]Hempel, "Search Behavior and Information Utilization in the Home Buying Process," pp. 241-249.

[7]Charles B. Riter, "What Influences Purchases of Color Televisions?" Journal of Retailing 42 (Winter 1966-1967):25-31, 63-64.

variables discussed, it appears to vary by product. For example, the extent of search for major durables tends to be high for managers and professional workers and low for both unskilled and service workers.[1] The reverse relationship has been reported for the purchase of sportshirts.[2] In the purchase of a home, professional and technical workers tend to search more extensively than managerial and administrative personnel.[3] Women's employment outside the home was found to be related to the frequency of food shopping by Anderson.[4] More specifically, working women tend to shop less frequently than nonworking women. Finally, Cunningham and Cunningham[5] found that occupation was one of

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[1]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87; and Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances, pp. 251-255.

[2]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

[3]Hempel, "Search Behavior and Information Utilization in the Home Buying Process," pp. 241-249.

[4]Beverlee B. Anderson, "Working Women Versus Non-Working Women: A Comparison of Shopping Behaviors," in Marketing Education and the Real World, and Dynamic Marketing in a Changing World, eds. Boris W. Becker and Helmut Becker, (Chicago: American Marketing Association), pp. 355-359.

[5]Isabella C.M. Cunningham and William H. Cunningham, "The Urban In-home Shopper: Socioeconomic and Attitudinal characteristics," Journal of Retailing 49(Fall 1973):42-50, 88.

the most significant socioeconomic variables in discriminating between active and inactive in-home shoppers.

Several researchers have investigated the relationships between social class and the amount of search. Once again, the relationships tend to vary across products groups. For example, in a study of television purchasers, Bruce and Dommermuth[1] found significant social class differences, with lower-class buyers exhibiting the lowest tendency to search, while working-class buyers were more likely to search, and middle-class purchasers were intermediate. Significant social class differences were also found by Cunningham and Cunningham[2] on discriminating between active and inactive in-home shoppers. In a study of food shoppers, Bucklin[3] reported an inverse relationship between social class and shopping. While most studies have found that consumers in the highest social class have a low propensity to engage in search, this relationship does not

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[1]Grady P. Bruce and William P. Dommermuth, "Social Class Differences in Shopping Activities," Marquette Business Review 12 (Spring 1968):1-7.

[2]Cunningham and Cunningham, "The Urban In-Home Shopper: Socioeconomic and Attitudinal Characteristics," pp. 42-50, 88.

[3]Bucklin, "Consumer Search, Role Enactment, and Market Efficiency," pp. 416-438.

always hold.[1] For example, no important differences in social class were found by Rich and Jain[2] in a study of fashion shopping behavior.

In addition to demographic variables such as age, education, income, occupation, and social class, variations in search behavior have also been related to life-cycle categories. Newman and Staelin,[3] for example, found that for the purchase of major durables, young, unmarried people had the highest propensity to search. Similarly, in a study of multistore food shopping, Prasad[4] found life-cycle to be a significant correlate. In contrast, Rich and Jain[5] found no important differences in fashion shopping behavior across life-cycle categories.

In sum, research has found support for the effect of demographics on the amount of information sought. These buyer characteristics, however, are neither consistent,

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[1]Joseph N. Fry and Frederick H. Silles, "A Comparison of Housewife Decision Making in Two Social Classes," Journal of Marketing Research 7 (August 1970):333-337.

[2]Rich and Jain, "Social Class and Life Cycle as Predictors of Shopping Behavior," pp. 41-49.

[3]Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," pp. 251-255.

[4]Prasad, "Correlates of Multistore Food Shopping," pp. 74-81.

[5]Rich and Jain, "Social Class and Life Cycle as Predictors of Shopping Behavior," pp. 41-49.

linear, nor statistically independent determinants of search behavior.

Family Role Structure. This discussion of different search styles has thus far focused on individual characteristics which may be treated as explanatory variables affecting the propensity to search for information. A third set of mediating variables used to differentiate search styles is family role structure.

Research that has explicitly recognized the family as an integrated behavioral system, similar to other groups faced with problems to solve and decisions to make, has suggested that family decision-making role structure, which refers to the behavior of family members at each stage of the decision process, may affect the performance of the purchase decision-making process, as well as consumption patterns. The major significance of family role structure as a variable affecting search behavior is that the family is an important source of interaction, with each member playing some role, which varies in terms of level of activity and relative importance according to the situation.

Before proceeding, this appears to be the appropriate juncture at which to differentiate between the concepts of household and family. According to Markin,[1] the concept of

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[1]Markin, Consumer Behavior pp. 422-423.

household is used to designate where people live, without regard to their relationship. In contrast, the concept of family not only denotes people who live together, but it also specifies that they must be related by blood, marriage, or adoption. In addition, the concept of family is directly related to the roles and interactions among those who live together.

While households and families differ with regard to their functions, it should be noted that households are important determinants of consumer behavior. In fact, one author has argued that in view of social changes, the family may become less important than the household as an economic and social factor in consumer behavior.[1]

Analysis of the influence of family role structure on the propensity to search is ususally found in research studies that have explored patterns of family decision-making. As such, several different conceptualizations of family role structure have been advanced by research in this area. For example, Alderson[2] argues that there is some role specialization in the typical family, with the husband as the primary earner and the wife fulfilling the primary role of purchasing agent. The husband may,

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[1]Ingrid C. Kildegaard, "A Household is Not a Family," Journal of Advertising Research 7 (June 1967):44-46.

[2]Alderson, Dynamic Marketing Behavior, p. 145.

however, be consulted on some large purchases, and occasionally play the dominate role in the purchase of some items.

A similar conceptualization of family role structure was advanced by Kenkel,[1] who suggested that men and women learn specific, discrete roles. According to this view, men usually learn task or goal-oriented behavior, while women learn social, emotional or expressive behavior. Since both kinds of behavior are exhibited in the family, this scheme of family role structure would suggest that men would be more concerned with relating the functional aspects of products to family needs, whereas women would concern themselves more with aesthetic product attributes.

Although the behavior characterized by these two conceptualizations is evidenced by all families, they tend to be somewhat limited. A more comprehensive view would recognize that all family members are not only consumers, but some are also buyers as well as influencers, while other are only influencers. Moreover, these roles are largely situational, varying considerably according to the product or service considered, as well as other factors.

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[1]William F. Kenkel, "Family Interaction in Decison Making and Spending," in Household Decision - Making, ed. Nelson N. Foote, (New York: New York University Press, 1961), pp. 140-164.

Such a view has suggested by Herbst,[1] who categorized four basic patterns of decision-making as: autonomic, where an equal number of separate decisions is made by each spouse; husband dominant; wife dominant; and syncratic, where decisions are made jointly by husband and wife. A number of studies have provided empirical support for this more complex conceptualization of role structure categories. They have also found variations in role structure among families, and have identified several tenative determinants of decision-making role structures, such as family characteristics, type of product, and stage in the decision-making process.

Several sociocultural variables have been related to diversity in role specifications, which tend to affect family purchasing decisions. Among those variables are: culture, subculture, social class, and social networks.

According to Kenkel,[2] all societies assign different rights and duties to men and women. These role specifications not only vary from one culture to another, but they also vary across subcultural groups.

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[1]P.G. Herbst, "The Measurement of Family Relationships, Human Relations 5 (February 1952):3-35.

[2]Kenkel, "Family Interaction in Decision Making and Spending," pp. 140-164.

Both Kenkel[1] and Komarovsky,[2] as well as others, suggest that family role structure and its influence on family decision-making are related to social class. Empirical evidence has supported this suggestion and found the relationship to be curvilinear. More specifically, joint decision-making is more prevalent in middle class families, while women tend to play the most important role in lower class families and men seem to dominate in upper class families.[3] In addition, Markin[4] notes that socially mobile families tend to manifest more joint decision-making.

Finally, there is some evidence that a family's social network is related to the degree of joint decison-making. It has been posited that social "connectedness", which means the degree to which family members have similiar friends and interests, varies inversely with joint decision-making. In other words, joint decison-making

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[1]Ibid.

[2]Mirra Komarovksy, "Class Differences in Family Decision-Making on Expenditures," in Household Decision Making, ed. Nelson N. Foote, (New York: New York University Press, 1961):255-265.

[3]Komarovsky, "Class Differences in Family Decision-Making on Expenditures," pp. 255-265; Harry Sharp and Paul Mott, "Consumer Decisions in the Metropolitan Family," Journal of Marketing 21 (October 1956):149-156; and Elizabeth H. Wolgast, " Do Husbands or Wives Make the Purchasing Decisions?" Journal of Marketing 23 (October 1958):151-158.

[4]Markin, Consumber Behavior, p. 434.

tends to be greater when neither husband nor wife belongs to a connected social network.[1]

In addition to sociocultural influences several family characteristics have been identified as determinants of decison-making role structures. These characteristics include stage in the life cycle, which takes into account the length of marriage and the presence of children, and location of the family as well as geographic mobility.

Throughout the family life cycle, the role of each member changes, imposing certain buying expectations at each state. Several studies have found the frequency of joint decision-making tends to decline over the life cycle. This phenomenon is usually ascribed to an increased efficiency or competence that develops overtime as the family establishes norms, becomes more stable, and gains familiarity with each member's needs and tastes.[2]

Location of the family and geographic mobility have also been found to influence decision-making role

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[1]Donald J. Hempel, "Family Decision Making: Emerging Issues and Future Opportunities," in Contemporary Marketing Thought, eds. Barnett A. Greenberg and Danny A. Bellenger, (Chicago: American Marketing Association, 1977): 428-431.

[2]Granbois, "The Role of Communication in the Family Decision-Making Process," pp. 44-57; Komarovsky, "Class Differences in Family Decision-Making on Expenditures," pp.255-265; and Wolgast, "Do Husbands or Wives Make the Purchasing Decisions?", pp. 151-158.

structures. Wolgast,[1] for example, found that housewives in rural areas exert less overall influence on buying decisions than their husbands. In contrast, joint decision-making tends to be more common among geographically mobile families, since the process of moving creates a need for mutual dependence.[2]

Variability in role structure has also been associated with two individual dimensions: relative resource contribution and personality. Relative resource contribution is usually measured in terms of employment status, occupational prestige, income contribution, education, and decision-making ability. It has been hypothesized that the individual with the greatest status and resource contribution will have the greatest amount of influence in decision-making.[3] For example, Komarovsky,[4] found that the employment status of the wife affected her role in decision-making. More specifically, the wife's relative influence is greater if she is employed outside the home because

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[1]Wolgast, "Do Husbands or Wives Make the Purchasing Decision?" pp. 151-158.

[2]Komarovsky, "Class Differences in Family Decision-Making on Expenditures," pp. 255-265.

[3]Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p. 155; and Donald J. Hempel, "Family Decision Making: Emerging Issues and Future Opportunities," pp. 428-431.

[4]Komarovsky, "Class Differences in Family Decision-Making on Expenditures," pp. 255-265.

she has an independent source of income and thus becomes less financially dependent on her spouse. In contrast, Ferber and Lee,[1] found that neither education nor employment had much effect on determining which family member would act as the family financial officer. Instead, they found that most young married couples act as joint family financial officers immediately after marriage, with the wife eventually assuming the role.

Another individual characteristic shown to influence decision-making roles is the personality of different family members. Research suggests that women who see themselves as more concerned with the welfare of their family tend to make more purchase decisions than their liberal or traditionalists counterparts.[2]

There is considerable evidence that decision-making role structures vary from one product category to another. A number of studies have shown that the frequency of joint decision-making varies along several dimensions. The most consistent findings indicate that the extent of joint decision-making tends to increase as the price and

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[1]Robert Ferber and Lucy Chao Lee, "Husband-Wife Influence in Family Purchasing Behavior," Journal of Consumer Research 1 (June 1974):43-50.

[2] Bucklin, "Consumer Search, Role Enactment, and Market Efficiency," pp. 416-438.

importance of the product increases and the frequency of the purchase decreases.

In general, joint decison-making is more likely to occur for durable goods that are collectively consumed, whereas the purchase of durables and non-durables individually consumed are more likely to be delegated to one person. Further, little interaction occurs for some product decisions, especially those closely related to role specialization, regardless of the importance of the purchase.

Compared to frequently purchased items, there exists an abundance of research on family member influence in durable goods buying. Katona and Mueller,[1] for example, studied major durable purchases and found 70 percent of the cases involved collective decision-making. Kelly and Egan[2] reported similar results in a study of major expenditures. One example of a major expenditure is the purchase of a house. Several studies have explored the house purchasing

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[1]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

[2]Robert F. Kelly and Michael B. Egan, "Husband and Wife Interaction in a Consumer Decision Process," in Marketing Involvement in Society and the Economy, ed. Philip R. McDonald, (Chicago: American Marketing Association, 1963); pp. 250-258

process and found a high degree of joint decision-making.[1] Another major purchase expenditure is the automobile. In contrast to the purchase of housing, most studies exploring the automobile buying process have found the husband's influence to be greater than the wife's.[2] In a somewhat related study, Cox[3] found that husband and wife automobile preferences tend to become more similar in the

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[1]Isabella C.M. Cunningham and Robert Green, "Purchasing Roles in the U.S. Family, 1955 and 1973," Journal of Marketing 38(October 1974): 61-64; Harry L. Davis and Benny P. Rigaux, "Perception of Marital Roles in Decision Processes," Journal of Consumer Research 1(June 1974): 51-62; Donald J. Hempel, "Family Buying Decisions: A Cross-Cultural Perspective," Journal of Marketing Research 11(August 1974):295-302; Kelly and Egan, "Husband and Wife Interaction in a Consumer Decision Process," pp. 250-258; Gary M. Munsinger, Jean E. Weber, and Richard W. Hansen, "Joint Home Purchasing Decisions by Husbands and Wives," Journal of Consumer Research 1(March 1975): 60-66; Sharp and Mott, "Consumer Decisions in the Metropolitan Family," pp. 148-156.

[2]Harry L. Davis, "Dimensions of Marital Roles in Consumer Decision Making," Journal of Marketing Research 7 (May 1970): 168-177; Harry L. Davis, "Decision Making within the Household," Journal of Consumer Research, 2 (March 1976): 241-260; Robert T. Green and Isabella C.M. Cunningham, "Feminine Role Perception and Family Purchasing Decisions," Journal of Marketing Research 12 (August 1975): 325-332; and F.K. Shuptrine and G. Samuelson, "Dimensions of Marital Roles in Consumer Decision Making: Revisited," Journal of Marketing Research 13 (February 1976): 87-91.

[3]Eli P. Cox III, "Family Purchase Decision Making and the Process of Adjustment," Journal of Marketing Research 12 (May 1975): 189-195.

latter stages of the family life cycle and then become more dissimilar in the last two stages. This finding suggests that relative influence in decision-making also shifts over the course of the life cycle.

In addition to housing and automobile, decision-making role structures have been investigated for numerous other products such as apparel, appliances, gardening supplies, groceries, home entertainment, home furnishings, professional services, recreation, and vacation.[1] The husband has traditionally dominated decisions for television sets, lawn mowers, men's sportshirts, beer, lawyers, and life

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[1]Cunningham and Green, "Purchasing Roles in the U.S. Family, 1955 and 1973, pp. 61-64; Davis, "Dimensions of Marital Roles in Consumer Decison Making," pp. 168-177; Davis and Rigaux, "Perception of Marital Roles in Decision Processes," pp. 51-62; Green and Cunningham, "Feminine Role Perception and Family Purchasing Decisions," pp. 325-332; Marie A. Humphreys and Jack J. Kasulis, "Husband-Wife Decision Making in the Selection of a Family Professional," in 1979 Proceedings Southwestern Marketing Asssociation Conference, eds. Robert C. Haring, G. Edward Kiser, and Ronny D. Whitt, (Charleston, SC: Southwestern Marketing Association, 1979) pp. 49-50; Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87; Sharp and Mott, "Consumer Decisions in the Metropolitan Family," pp. 149-156; Shuptrine and Samuelson, "Dimensions of Marital Roles in Consumer Decision Making: Revisited," pp. 87-91; Wolgast, "Do Husbands or Wives Make the Purchasing Decisions?" pp. 151-158; and Arch G. Woodside, "Dominance and Conflict in Family Purchasing Decisions," in Proceedings, Third Annual Conference of the Association for Consumer Research, ed. M. Venkatesan, (1972), pp. 650-659.

insurance as well as insurance agents.[1] In contrast, wives tend to dominate decisions for groceries, home furnishings, some household appliances such as washing machines, kitchenware, clothing for both the children and the wife, and the family pharmacist.[2] While some decisions are dominated by either the husband or the wife, others, such as furniture, appliances, the husband's clothes, recreation, and vacations, tend to be a function of joint decision-making.[3]

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[1]Cummingham and Green, "Purchasing Roles in the U.S. Family, 1955 and 1973," pp. 61-64; Davis and Rigaux, "Perception of Marital Roles in Decision Processes," pp. 51-62; Green and Cunningham, "Feminine Role Perception and Family Purchasing Decisions," pp. 325-332; Humphreys and Kasulis, "Husband-Wife Decision Making in the Selection of a Family Professional," pp. 49-50; Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87; Sharp and Mott, "Consumer Decisions in the Metropolitan Family," pp. 149-156; and Woodside, "Dominance and Conflict in Family Purchasing Decisions," pp. 650-659.

[2]Cunningham and Green, "Purchasing Roles in the U.S. Family, 1955 and 1973," pp. 61-64; Davis and Riguax, "Perception of Marital Roles in Decision Processes," pp. 51-62; Green and Cunningham, "Feminine Role Perception and Family Purchase Decisions," pp. 325-332; Humphreys and Kasulis, "Husband-Wife Decision Making in the Selection of a Family Professional," pp. 49-50; Sharp and Mott, "Consumer Decisions in the Metropolitan Family," pp. 149-156; Shuptrine and Samuelson, "Dimensions of Marital Roles in Consumer Decision Making: Revisited," pp. 87-91; Wolgast, "Do Husbands or Wives Make the Purchasing Decisions?" pp. 151-158; and Woodside, "Dominance and Conflict in Family Purchasing Decisions," pp. 650-659.

[3]Cunningham and Green, "Purchasing Roles in the U.S. Family, 1955 and 1973," pp. 61-64; Davis, "Dimensions of Marital Roles in Consumer Decision Making," pp. 168-177; Davis and Rigaux, "Perception of Marital Roles in Decision Processes," pp. 51-62; Green and Cunningham, "Feminine Role Perception and Family Purchasing Decisions" pp. 325-332;

At the beginning of this discussion, it was noted that family role structure represents one of three sets of variables used to explain individual differences in propensity to search. It was also noted that role structure, itself, was influenced by a set of five mediating variables. Thus far, four of those variables have been explored. The final variable shown to affect family decision-making role structure is the stage in the decision process. Consideration of this variable was saved until last because it not only allows the discussion to return to the original focal point but it also examines the interrelationship between propensity to search and family role structure.

Although considerable evidence supports the contention that decision-making role structures vary from one product category to another, it would be a serious oversimplification to classify products as either husband-dominant, wife-dominant, or syncratic because research has shown that the relevant decision-making unit may involve other family members, as well as relevant others outside the family. Moreover, research has shown that both the decision unit

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and Sharp and Mott, "Consumer Decisions in the Metropolitan Family," pp. 149-156.

and the level of involvement tend to vary within product categories as the decision process moves from one stage to another.

In general, research has shown that the family member who recognizes the problem or initiates the buying decision process may not be equally involved in other stages, such as external search, alternative evaluation, and purchasing.[1] This phenomenon is illustrated in the case of the home-buying process studied by Hempel,[2] who found husbands tend to be active initiators of the process, whereas wives tend to play a dominate role in the search stage, and both performing specialized tasks at the decision stage. Similar variations in role sturcture at different stages of the buying process for housing were also found by Munsinger, Weber and Hansen.[3]

Variations in role structure and relative influence across decision stages have been found in studies of other

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[1]Davis, "Dimensions of Marital Roles in Consumer Decision Making," pp. 168-177; and Hempel, "Family Decision Making: Emerging Issues and Future Opportunities," pp. 428-431.

[2]Hempel, "Family Buying Decisions," A Cross-Cultural Perspective," pp. 295-302.

[3]Munsinger, Weber, and Hansen, "Joint Home Purchasing Decisions by Husbands and Wives," pp. 60-66.

products as well. For example, Davis and Rigaux[1] obtained information about marital roles for 25 household decisions and found no significant differences in the average relative influence across the three stages of the decision process, which they identified as problem recognition, search for information, and final decision. They did, however, find the proportion of couples in the joint category to be significantly less for the search stages than for either of the other two stages. Similar results were reported by Wilkes,[2] who found low intercorrelations among relative influence scores in four decision states, identified as problem recognition, search, final decision, and purchase. He also found no significant association between the person who performed the purchasing role and the person who searched for information. In another study, Woodside[3] found that patterns of influence vary across decision stages.

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[1]Davis and Rigaux, "Perception of Marital Roles in Decision Processes," pp. 51-62.

[2]Robert E. Wilkes, "Husband-Wife Influence in Purchase Decisions--A Confirmation and Extension," Journal of Marketing Research 7 (May 1975): 224-227.

[3]Arch G. Woodside, "Effects of Prior Decision-Making, Demographics and Psychographics on Marital Roles for Purchasing Durables," in Advances in Consumer Research, Vol 2, ed. Mary J. Schlinger, (Chicago: Association for Consumer Research, 1975); pp. 81-92.

One of the most consistent findings reported in studies investigating variance in role structures across decision stages is the extent of joint participation tends to be lower for the search phase. But, compared to individual decision-making, joint information seeking tends to be more extensive. For example, Newman and Staelin[1] found that when the husband was the major influence on the purchase decision for automobile and appliances, his average information seeking score was lower than when husband and wife shared this task, especially for automobiles. On the other hand, when the wife was the major influence on the purchase decision for automobiles, her average score was lower than when both spouses sought information but higher for appliances.

In short, the amount of interaction during the search phase seems to depend upon the importance of the decision, familiarity with the product and the roles of husband and wife within the family. Role structures particularly influence who will dominate the search for information. For example, Bucklin[2] found the female household role to be highly influential on the search for food products.

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[1]Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," pp. 249-257.

[2]Bucklin, "Consumer Search, Role Enactment, and Market Efficiency," pp. 416-438.

In general, research has shown that for different products husbands and wives acquire different information. Research has also found that wives' participation in the search phase tends to vary less across product categories than does the participation of husbands. Furthermore, wives seem to be more involved in information acquisition than husbands.

In sum, research has shown that family role structure not only has an impact on family decision-making but it also affects an individual's propensity to search. Decision-making within the family is influenced by an interrelated network of sociocultural factors, characteristics of the family as a whole, and characteristics of individual members as well. Family role specialization determines who is likely to dominate at different stages of the decision process for the product in question. These roles, however, have been shown to vary both across product categories and within product categories. Consequently, there is some evidence to suggest that caution be exercised in making over-simplified assumptions about family role structures and their impact on consumer decision-making.

The purpose of this section on individual differences in propensity to search has been to examine what is known about the reasons for these variations. In the process of examining studies of search behavior, it became obvious that many different measures of information seeking have

been used to identify different search styles. Therefore, the purpose of the next section is to review measures of search behavior.

Measures of Search

The amount of information seeking for many different buying situations has been investigated using numerous measures of information gathering activities. For example, there are counts of retail shopping activity, which includes the numer of stores visited, the number of shopping trips made prior to purchase, and the number of prepurchase visits to the store of purchase. Other measures of search, in addition to retail shopping activity, include the number of sources and types of information used, alternatives considered, and the amount of time spent in the purchase decision process.

While each of these measures relate to some aspect of prepurchase information search, they can only be regarded as proxies for total search. Only a limited number of attempts have been made to develop more comprehensive indexes of total information gathering behavior.

Among nonaggregated measures of retail shopping activity, the most frequently reported are intratrip and

intertrip shopping.[1] Intratrip shopping refers to interstore comparisons made during a simple shopping trip, whereas taking more than one shopping trip for the purchase of a product is referred to as intertrip shopping.2

In studies measuring the number of interstore comparisons, one of the most consistent findings reported is that

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[1]Alderson and Sessions, Inc., "Basic Research Report on Consumer Behavior," in Quantitative Techniques in Marketing Analysis, eds. Ronald E. Frank, Alfred A. Kuehn, and William F. Massy, (Homewood, IL: Richard D. Irwin, 1962): 129-145; Bruce and Dommermuth, " Social Class Differences in Shopping Activities," pp. 1-7; Bucklin, "Testing Propensities to Shop," pp. 22-27; Claxton, Fry, and Portis, "A Taxonomy of Prepurchase Information Gathering Patterns," pp. 35-42; Dommermuth, "The Shopping Matrix and Marketing Strategy," pp. 128-132; Dommermuth and Cundiff, "Shopping Goods, Shopping Centers and Selling Strategies," pp. 32-36; Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87; Arno K. Kleimenhagen, "Shopping, Specialty or Convenience Goods?," Journal of Retailing 42 (Winter 1966-1967): 22-30; Arno K. Kleimenhagen and Ronald W. Stampfl, "A 'Principle of Drift' for Institutional Patronage?," Journal of Retailing 44 (Fall 1968): 3-12; Bruce LeGrand and Jon G. Udell, "Consumer Behavior in the Market Place An Empirical Study in the Television and Furniture Fields with Theoretical Implications," pp. 32-40, 47-48; David B. MacKay, "A Microanalytic Approach to Store Location Analysis," Journal of Marketing Research 9 (May 1972):134-40; Joseph W. Newman and Bradley D. Lockeman, "Measuring Prepurchase Information Seeking," Journal of Consumer Research 2 (December 1975): 216-222; Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," pp. 249-257; Riter, "What Influences Purchases of Color Televisions?," pp. 25-31; James T. Rothe and Lawrence M. Lamont, "Purchase Behavior and Brand Choice Determinants for National and Private Brand Major Appliances," Journal of Retailing 49 (Fall 1973): 19-33; and Udell, "Prepurchase Behavior of Buyers of Small Electrical Appliances," pp. 50-52.

[2]Bucklin, "Testing Propensities to Shop," pp. 22-27.

consumers search activity is not extensive under any circumstances. For example, in a study of television set buyers, Riter[1] found that only half had shopped at several stores. In another study of television set buyers, LeGrand and Udell[2] found that 39 percent visited only one store. Similar findings have been reported in studies of furniture and major appliance buying. LeGrand and Udell,[3] for instance, found that 22 percent of furniture buyers visited only one store; and, 66 pecent of the major appliance purchasers studied by Rothe and Lamont[4] only visited one or two stores. Finally, in another study of interstore comparisions, Bucklin[5] reported that 56.2 percent of the buyers of nonfood items worth $5.00 or more had shopped in only one store.

In addition to counting the number of stores visited, researchers have also measured search by counting the

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[1]Riter, "What Influences Purchases of Color Televisions?," pp. 25-31.

[2]LeGrand and Udell, "Consumer Behavior in the Market Place--An Empirical Study in the Television and Furniture Fields with Theoretical Implications," pp. 32-40, 47-48.

[3]Ibid.

[4]Rothe and Lamont, "Purchase Behavior and Brand Choice Determinants for National and Private Brand Major Appliances," pp. 19-33.

[5]Bucklin, "Testing Propensities to Shop" pp. 22-27.

number of shopping trips made prior to purchase. Bucklin,[1] for example, found that only one trip was made for 84 percent of the nonfood items included in his study. Of all the products examined, furniture and large appliances showed the highest level of intertrip shopping, with 61.7 percent of these purchases involving more than one shopping trip.

Another measure of retail shopping activity is the number of prepurchase visits to the store of purchase. While not as common as counting the number of stores visited, studies using this measure have also found low levels of search activity. For example, in a study of small appliance buyers Udell[2] found that 77 percent of the purchasers made only one visit to the store of purchase, 19 percent visited the store twice, and 4 percent made more than two visits.

As previously mentioned, retail shopping activity is the most frequently reported measure of information seeking. Less common measures, such as the number of information sources used and the number of types of information sought, have also been used by researchers. For example, several studies have measured search activities by

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[1]Ibid.

[2]Udell, "Prepurchase Behavior of Buyers of Small Electrical Appliances," pp. 50-52.

counting contacts with different categories of information sources. Such as discussions with friends, neighbors, co-workers, or experts; publications which includes books, pamphlets, and articles; advertising; and visits to retail outlets. In general, research has shown that consumers contact few information sources.

For example, in their study of major appliance buyers, Katona and Mueller[1] found that one-third of the buyers consulted only one source. Similar results were found by Newman and Staelin,[2] who studied the information seeking behavior of automobile and major appliance buyers. According to their survey 15 percent of the buyers consulted no external sources before buying, while 30 percent only consulted one source; of the remainder, 26 percent consulted two sources, 18 percent three sources, and 12 percent four sources. In contrast, King,[3] who studied hat buying, found that women consulted a number of sources in order to stay informed about fashions.

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[1]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

[2]Newman and Staelin, "Information Sources of Durable Goods," pp. 19-29.

[3]Charles W. King, "Communicating with the Innovator in the Fashion Adoption Process," in Marketing and Economic Development, Peter D. Bennett, ed. (Chicago: American Marketing Association, 1965): 425-439.

Research has shown that consumers not only contact a limited number of information sources, but they also seek limited amounts of information. For example, Katona and Mueller[1] found, in their study of major appliance buying, that only 35 percent of the buyers sought information in addition to price, brand, and one feature. Similar results were obtained in a laboratory experiment that allowed subjects to choose as much information as they wanted in order to select from sixteen brands of cold cereals. Out of 560 available information values, the median acquisition was less than seven.[2]

Another search measure, related to the number of sources and types of information sought, is the number of alternatives considered, which is typically defined in terms of brands and price ranges. Several studies have reported that consumers limit their search to a few alternatives. For example, in a study of automobile buyers, Newman and Staelin[3] found that 47 percent of the buyers

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[1]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

[2]Jacob Jacoby, Robert W. Chestnut, Karl Weigl, and William Fisher, "Pre-Purchase Information Acquisition: Descripion of Process Methodology, Research Paradigm, and Pilot Investigation," in Advances in Consumer Research, Vol. III, Beverlee B. Anderson, ed. (Atlanta, GA: Association for Consumer Research, 1976): pp. 306-313.

[3]Newman and Staelin, "Purchase Information Seeking for New Cars and Major Household Appliances," pp. 249-257.

only considered a single brand. May[1] contends that the number of automobile brands considered is a function of previous brand ownership. Similar results have been reported for other products as well. Dommermuth,[2] for example, found that 41 percent of the refrigerator buyers studied only examined one brand, 13 percent considered two brands, 17 percent three brands, and 29 percent four or more brands. For vaccum cleaners, he found that 71 percent of the buyers considered only one brand. Finally, research has not only shown that buyers consider few brands, but it has also been shown that they consider only a few price ranges, Katona and Mueller,[3] for example, found that 46 percent of major appliance buyers considered only one price range.

The length of the search time period, according to Hempel,[4] is another measure of search, However, like the previous measures discussed, it provides only a partial indicator of search behavior. Several researchers have

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[1]May, "Adaptive Behavior in Automobile Brand Choices," pp. 62-65.

[2]Dommermuth, "The Shopping Matrix and Marketing Strategy," pp. 128-132.

[3]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

[4]Hempel, "Search Behavior and Information Utilization in the Home Buying Process," p. 242.

used this measure and found that many consumers have short purchase decision times for all types of products. For example, Katona and Mueller[1] not only found short purchase decision times for buyers of sport shirts, but they also found similar patterns for buyers of durable goods. More specifically, 50 percent of the sport shirt buyers either purchased within a short time or on the spur of the moment, while 36 percent of appliance buyers only took between a day and a few weeks. In contrast, 39 percent of the appliance buyers took from one to several months, and 21 percent took at least a year. Similar results were reported by Newman and Staelin,[2] who studied buyers of major appliances and automobiles and found that 50 percent were in the purchase decision process two weeks or less, while a third of the buyers took six months or more.

As previously mentioned, most measures of search relate to some limited aspect of the total process. In order to measure the amount of search more completely, several researchers have constructed more comprehensive measurers. Katona and Mueller,[3] for example, developed an

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[1]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

[2]Newman and Staelin, "Multivariate Analysis of Differences in Buyer Decision Time," pp. 191-198.

[3]Katona and Mueller, "A Study of Purchase Decisions," pp. 30-87.

index of deliberation, which contained measures of extent of circumspectness, extent of information-seeking activity, choosing with respect to price, choosing with respect to brand, and number of features considered. Of the 360 purchases of major household durables studied, Katona and Mueller found little difference among buyers of televisions, refrigerators, washing machines, and stoves. Their deliberation index showed about one-fourth of the buyers were almost completely lacking in deliberation and another one-fourth were reasonably deliberate.

Katona and Mueller's findings have been supported by Newman and Staelin,[1] who constructed indices of out-of-store and in-store information seeking and combined them into an overall index of total search for automobiles and major appliances. Similar findings have also been reported by Claxton, Fry, and Portis,[2] who devised 18 variables reflecting the five dimensions of search defined by Katona and Mueller. Using numerical taxonomic procedures, three distinct patterns for buying furniture and major appliances were identified: thorough (store intense), thorough (balanced), and non-thorough. Of the three groups,

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[1]Newman and Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," pp. 249-257.

[2]Claxton, Fry, and Portis, "A Taxonomy of Prepurchase Information Gathering Patterns," pp. 35-42.

findings relevant to the non-thorough shoppers is of particular significance; with 34 percent of the furniture buyers averaging only one type of information source, two store visits, and a deliberation time of a few weeks; and 65 percent of the appliance buyers averaging only one type of source, one store visit, and deliberation times of a few weeks.

In sum, the extent of information seeking has been measured in a number of different ways. Most of these measures only relate to some aspect of search, while the remainder attempt to measure the overall extent of search. In general, an overwhelming majority of studies have documented wide variations in the extent of overall search, with substantial proportions of consumers reporting little search activity.

At the beginning of this discussion of information search it was noted that information seeking involves both the mental processes and physical activities consciously used by the consumer to gather information about the number of purchase alternatives, the relative merits of the various alternatives, and the consequences of selecting the various alternatives. It was also noted that the process begins with internal search and only moves to external search if internal search does not provide a satisfactory solution. Finally, it was pointed out that the extent of external search was situationally dependent.

In the discussion which followed, numerous factors shown to affect the extent of external search were explored. To facilitate the exploration of these factors, they were grouped into three categories, which included the perceived value of search, the perceived cost of search, and individual propensities to search. In addition to exploring the determinants of external search, various empirical measures of search were also identified and reviewed.

In short, this discussion of information search has thus far focused on the process as well as the determinants of search, but it has not been concerned with the actual sources of information. Since information acquisition concerns the sources of information as well as the process by which it is acquired, the purpose of the next several sections will be to explore consumer information sources.

Sources of Information

There are three general sources of information available to consumers engaged in external search. These sources include: marketer-dominated information such as advertisements, publicity, promotion, personal selling, and visits to retail establishments; consumer-dominated or interpersonal sources including reference groups such as family, friends, neighbors, and work associates; and

finally, neutral, objective sources not directly influenced by either marketers or consumers such as newspapers, magazines, and other mass media consumer information services.[1] In general, neutral, objective sources tend to perform a function similar to that performed by the consumer-dominated channel.

Another way to categorize information sources is described by Hansen[2] as primary, secondary, tertiary, and personal communication. Primary communication occurs from the consumer's first hand experience with the product such as through a trial period during which the consumer can personally evaluate the product. In contrast, secondary communication is provided via mass communication sources such as magazines, newspapers, brochures, catalogs, television, radio, and posters. These sources vary considerably with regard to consumer control over accessibility and exposure to desired information. Teritiary communication relies on the decision to go to stores in an effort to acquire information, inspect alternatives, and make purchasing choices. Finally, personal communication includes interaction with both marketer-dominated sources such as sales people and consumer-dominated sources.

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[1]Berkman and Gilson, Consumer Behavior; p. 60; Engel, Wales, and Warshaw, Promotional Strategy, 3d ed. p. 127; and Markin, Consumer Behavior; pp. 512-523.

[2]Hansen, Consumer Choice Behavior, pp. 181-186.

After comparing these two classification schemes, it should be apparent that they are more similar than different, in that both identify the same information sources but just arrange them into different categories. Although Hansen's scheme provides an interesting perspective, the former scheme provides a more fundamental approach to information sources. Hence, the next two sections will be devoted to exploring marketer-dominated and consumer-dominated sources of information.

Marketer-Dominated Sources of Information. The major sources considered to be marketer-dominated are advertising and sales promotion, personal selling, and publicity.[1] Buyers tend to become more receptive to advertising and sales promotion information once they recognize a need. In instances where products are not presold through advertising and sales promotion, buyers often make retail store visits. In these cases personal selling plays a significant role, particularly where it is necessary for buyers to make careful discriminations among similar products. In contrast, publicity is more long range in nature, and these efforts are designed to enhance understanding of an organization by the public. Occasionally, publicity information will be used by buyers in decision making, especially if

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[1]Engel, Wales, and Warshaw, Promotional Strategy, 3d ed. pp. 132-133.

the information concerns new or improved products.

For the most part, marketer-dominated sources of information provide the consumer with a wide range of product information which tends to be more generalized than specific. Since consumers recognize the sales intent of this approach they may question the marketer's veracity.[1] In general, of the marketer-dominated information sources, personal selling is considered more effective and influential than other methods of promotional communication.[2]

Consumer-Dominated Sources of Information. Although marketer-dominated information sources play a significant role in consumer decisions, information obtained from other people plays an equally important role. The exchange of information between people, which includes visual as well as verbal communication, is called interpersonal communication. When interpersonal communication affects the attitudes or behavior of one or more people this is known as personal influence.[3]

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[1]Markin, Consumer Behavior, p. 523.

[2]Frederick E. May, "Appraisal of Buying Behavior Research," in Marketing and Economic Development, Peter D. Bennett, ed. (Chicago: American Marketing Association, 1965); p. 397.

[3]Berkman and Gilson, Consumer Behavior, p. 385; Engel, Blackwell, and Kollat, Consumer Behavior, 3d ed., p. 378.

One of the first studies to document the significant of interpersonal communication and personal influence was reported by Katz and Lazarsfeld,[1] who advanced the notion that personal influence occurs in a two-step manner. Based on an analyses of data derived from research conducted during the course of the 1940 presidential election compaign, it was noted that the influence of people was the main factor in voting decisions, while mass media was found to have only negligible effects. It was also found that individuals who influenced the voting decisions of others were more often in contact with and more influenced by mass media than those they influenced. These observations provided the basis for the two-step flow of communication's model, which is the traditional model of the link between mass media and interpersonal communication.

According to the two-step flow model, as described by Katz and Lazarsfeld, communications do not flow in a vertical line from mass media to the masses, but rather there is a vertical stream of influences and ideas from the media to opinion leaders who absorb, use, and ultimately transmit the information horizontally to the less active sections of the population. In short, the opinion leader is the link between the mass media and the passive masses.

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[1]Elihu Katz and Paul F. Lazarsfeld, Personal Influence: The Part Played by People in the Flow of Mass Communications, (New York: The Free Press, 1955).

Although the two-step flow model was an important break through in understanding communications, research has shown that it is neither an accurate nor a complete model of the process because it not only assumes a one-way communications flow, but it also views the audience as passive recipients of information completely uninfluential in their own right. This one-way communication presupposed by the two-step flow model is not the only kind of communication that may occur. Several studies have found that word-of-mouth communications are frequently initiated by consumers seeking information from opinion leaders.

Cox,[1] for example, cites several unpublished commercial studies that found about 50 percent of the conversations concerning products were initiated by non-leaders, who were requesting information from opinion leaders, rather than the other way around, as the two-step model contends. Similarly, King and Summers[2] found that people who participate in interpersonal communications tend both to transmit and receive information. After reviewing

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[1]Donald F. Cox, "The Audience as Communicators, in Toward Scientific Marketing, ed. Stephen A. Greyser, (Chicago: American Marketing Associaton, 1964): 58-72.

[2]Charles W. King and John O. Summers, "Dynamics of Interpersonal Communication: The Interaction Dyad," in Risk Taking and Information Handling in Consumer Behavior, ed. Donald F. Cox (Boston: Harvard Graduate School of Business Administration, 1967): 240-264.

the literature on the transmitter-receiver dyad in interpersonal communication, they concluded that people tend to exchange information more often with peers of approximately the same age and social group. They also found that the perceived credibility or expertise of the information provider was a key variable in information seeking with more qualified people being sought out more often than those who appear less well-informed. Moreover, families, as would be expected were influential in interpersonal communication. Finally, proximity is an important interaction facilitator. This would suggest that interpersonal exchanges are quite broad, and opinion leadership is highly situational.

If opinion leaders are sufficiently influential then an understanding of their characteristics and motivations is useful. According to Engel, Wales and Warshaw[1] opinion leaders are most often motivated to talk about products or services because they are interested in the item and talk about it out of a desire for attention, a need for status, a concern for others, a need to reduce doubt or a desire to be entertaining.

Numerous studies have been directed toward characterizing opinion leaders for consumer products and services.

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[1]Engel, Wales, Warshaw, Promotional Strategy, 3d ed., p. 129.

Most of these efforts have focused on demographics, personality traits, perceived risk, lifestyle, social activities and media exposure. First, opinion leaders and followers tend to be homogeneous demographically but there can be differences. For the most part, these traits tend to be related to specific products and the relationships are usually too weak to be very helpful.[1]

Similarly, the relationship between personality characteristics and opinion leadership appears to be situationally dependent. For example, Robertson and Myers[2] found that none of the basic personality variables related substantially to opinion leadership for appliances, clothing or food. In contrast, several studies have identified some distinguishing personality characteristics of opinion leaders such as greater willingness to innovate,[3]

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[1]Feldman and Spencer, "The Effect of Personal Influence in the Selection of Consumer Services," pp. 440-452; James H. Myers and Thomas S. Robertson, "Dimensions of Opinion Leadership," Journal of Marketing Research 9(February 1972): 41-46; and Robertson, Consumer Behavior, pp. 84-86.

[2]Thomas S. Robertson and James H. Myers, "Personality Correlates of Opinion Leadership and Innovative Buying Behavior," Journal of Marketing Research 6(May 1969): 164-168.

[2]John O. Summers and Charles W. King, "Interpersonal Communication and New Product Attitudes" in Marketing Involvement in Society and the Economy, ed. Philip R. McDonald, (Chicago: American Marketing Association, 1969), pp. 292-299.

greater self-confidence,[1] and more emotional stability.[2] In addition Cunningham[3] found that consumers who perceived greater risk were also more inclined to designate themselves as opinion leaders for supermarket products, especially those used for doing the laundry.

The single most consistent finding to emerge from research investigating life-style and social activities is that opinion leaders are gregarious. They have been found to demonstrate this distinguishing characteristic by being more active in social and community projects and in seeking out others for the purpose of exchanging information.[4]

Finally, research has found that opinion leaders are more interested in their sphere of influence and this is reflected in their active exposure to the mass media,

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[1]Fred D. Reynolds and William R. Darden "Mutually Adaptive Effects of Interpersonal Communication," Journal of Marketing Research 8(November 1971): 448-454.

[2]John O. Summers, "The Identity of Women's Clothing Fashion Opinion Leaders," Journal of Marketing Research 7(May 1970):178-185.

[3]Scott M. Cunningham, "Perceived Risk as a Factor in Informed Consumer Communication," in Risk Taking and Information Handling in Consumer Behavior, ed. Donald F. Cox, (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1967), pp. 265-288.

[4]Steven A. Baumgarten, "The Innovative Communicator in the Diffusion Process," Journal of Marketing Research 12 (February 1975): 13-18; Reynolds and Darden, "Mutually Adaptive Effects of Interpersonal Communication," pp. 449-454; and Summers, "The Identity of Women's Clothing Fashion Opinion Leaders," pp. 178-185.

particularly to those types of media that are relevant to their area of interest.[1]

Although opinion leaders are not greatly different from the recipient of the information a composite profile would suggest that age varies by product category; social status is most often the same as the recipient's; no distinguishing personality features, however, opinion leaders tend to possess a high degree of gregariousness, cosmopolitanism, and knowledge would not be unusual; and finally, norm adherence and innovativeness round out the profile.

A recurring question regarding opinion leadership queries if an opinion leader for one product category would likely serve in the same capacity for other categories. Interestingly, Robertson and Myers[2] found little overlap in the areas of food, clothes and appliances and concluded that consumption in one product area is not systematically

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[1]Charles W. King and John O. Summers, "Overlap of Opinion Leadership Across Consumer Product Categories," Journal of Marketing Research 7(February 1970): 43-50; Reynolds and Darden, "Mutually Adaptive Effects of Interpersonal Communication," pp. 449-454.; Robertson and Myers, "Personality Correlates of Opinion Leadership and Innovative Buying Behavior." pp. 164-168; Summers, "The Identity of Women's Clothing Fashion Opinion Leaders," pp. 178-185; John O. Summers, "Media Exposure Patterns of Consumer Innovators," Journal of Marketing 36(January 1972): 43-49; and Summers and King" Interpersonal Communication and New Product Attitudes," pp. 292-299.

[2]Robertson and Myers, "Personality Correlates of Opinion Leadership and Innovative Buying Behavior," pp. 164-168.

related to opinion leadership in other areas. However, in a much larger study of product categories they found a number of significant overlaps of opinion leadership for closely related categories.[1] In contrast, King and Summers[2] concluded that a generalized opinion leadership pattern did exist and the area of overlap tended to be the highest between similar product categories.

Thus, it seems that opinion leadership may be viewed in two ways. First, in some instances it is specific for certain products and services while in other cases it represents a more generalized phenomenon across products and categories. From a product specific view, opinion leadership seems to indicate that influentials dominate in only selected areas such as food, clothes and appliances in which Myers and Robertson[3] found limited overlap and Silk[4] found that leaders for dental products did not tend to be influential in other areas. Also, opinion leaders tend to be more interested in their product than are nonleaders

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[1]Myers and Robertson, "Dimensions of Opinion Leadership," pp. 41-46.

[2]King and Summers, "Overlap of Opinion Leadership Across Consumer Product Categories," pp. 43-50.

[3]Myers and Robertson, "Dimensions of Opinion Leadership," pp. 41-46.

[4]Alvin J. Silk, "Overlap Among Self-Designated Opinion Leaders: A Study of Selected Dental Products and Services," Journal of Marketing Research 3(August 1966): 255-259.

as well as their area of influence,[1] and are more active than nonleaders in receiving interpersonal communication about the products within their area of influence.

While product specific leadership is indicated in traditional research in this field, there is growing information to support the hunch that overlap occurs among areas more than originally was believed. King and Summers[2] reported a high degree of influence overlap among six different product groups: food, fashion, detergents, and cleaners, large appliances, small appliances and personal care products. The greatest overlap was found in closely related areas such as large and small appliances and items which have some characteristics in common. For example, there is a greater likelihood that overlap will occur between cosmetics and clothes than between cosmetics and either food or appliances. Additionally, Montgomery and Silk[3] found that overlap was most prominent across product categories which held similar interest for the same opinion leaders.

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[1]Summers and King, "Interpersonal Communication and New Product Attitudes," pp. 292-299.

[2]King and Summers, "Overlap of Opinion Leadership Across Consumer Product Categories," pp. 43-50.

[3]David B. Montgomery and Alvin J. Silk, "Clusters of Consumer Interests and Opinion Leaders' Spheres of Influence," Journal of Marketing Research 8(August 1971): 317-321.

Research has thus indicated that there is a quasi-generalized opinion leader pattern, and these patterns seem to be one of the important factors that determine spheres of influence. The prevailing view is that while one person's opinion leadership is not usually highly generalized over many products or services, influence may overlap clusters of products that have similar qualities or meet similar needs.

This section has dealt with several issues related to opinion leadership and the transferability of influence from one product to another. The next section examines the relative importance and roles of information sources considering selected advantages and disadvantages of each. In addition, determinants of the relative importance of information sources are weighed according to the type of information desired, the perceived risk, characteristics of the decision unit and the stage of market development.

Relative Importance and Roles of Information Sources

As mentioned, there are three basic types of information sources, each with distinct characteristics, advantages and disadvantages. Also, the nature of a given source tends to influence when and how consumers will turn to it. For example, opinion leaders are not typically considered as experts in all areas; marketer-generated

information is viewed with skepticism as biased while objective sources rate a product's performance and typically do not take into account status or belonging needs.[1]

Of these three channels, marketer dominated ones are often valued for their ability to present information quickly, in a sophisticated manner and at a low-cost to the consumer. This channel can effectively be used to create awareness, stimulate interest and provide information for evaluating the product.[2] Although marketer dominated channels are generally viewed as accurate, consumers often view these channels with skepticism knowing that the marketer is trying to sell something.

In contrast, consumer dominated channels are usually valued for their flexibility, trustworthiness and for the amount of information which they convey about one product.[3] Consumers tend to increase their participation in informal channels when their needs are not met by formal channels. In general, personal sources of information are regarded as most effective in influencing consumer behavior than is the mass media. However, the effectiveness of personal or consumer channels varies according to the people involved,

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[1]Berkman and Gilson, Consumer Behavior, p. 409.

[2]Engel, Wales, and Warshaw, Promotion Strategies, 3d ed. p. 134 and Markin, Consumer Behavior, p. 553.

[3]Cox, "The Audience As Communicators," p. 64

the type of product, and the buying situation.[1] Moreover, this channel is more influential than the marketer oriented channel in evaluating the psychosocial consequences of the decision.[2]

Word of mouth advertising is the most effective mode of information sharing because it is highly interpersonal, and there is usually either group or individual pressure to comply with the advice given or received.[3] Word of mouth discussion also seems to reduce perceived risk. Not all of the characteristics of consumer oriented channels are positive in that they are at times viewed as less competent. As Cox[4] said "you may assume that your neighbor will speak the truth as he sees it, but there is no guarantee that he always knows what he is talking about." Cox also differentiated between the passive act of information receiving and the active more effective one of information seeking whereby friends and neighbors are actively sought out for information. Information seeking is a more costly way of gathering data and is more likely to occur when three conditions exist: when the consumer is aware of a need; is interested and motivated to obtain information,

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[1]Reynolds and Wells, Consumer Behavior, p. 275.

[2]Markin, Consumer Behavior, p. 533.

[3]Markin, Consumer Behavior, p. 535.

[4]Cox, "The Audience as Communicators," p. 64.

and when sufficient risk is perceived to justify the time and effort required.[1] These three conditions are most likely to be present when the marketer-oriented channels have elicited an awareness and interest.

The third source of information, neutral channels, has the advantage of offering accurate and trustworthy information at a relatively low cost. While these channels play a role similar to that of the consumer channel in being considered reputable, they are not as flexible or selective as most consumer channels.[2] Thus, it can be seen that each channel offers both advantages and disadvantages. They are complementary not mutually exclusive, and information seeking is a key determinant of consumer oriented channels.

Determinants of Relative Importance of Information Sources. The relative importance of information is influenced by four general areas including type of information desired, the perceived risk, characteristics of the decision unit, and the stage of market development. From the consumer's perspective each of the channels of information has distinctive advantages and limitations. Specifically, marketer dominated channels are recognized for their efficiency for distribution of information in an accurate and where indicated technical fashion. These channels are

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[1]Cox, "The Audience as Communicators," p. 65.

[2]Markin, Consumer Behavior, p. 533.

generally perceived as having low cost for the consumer and being readily accessible. However, these sources are often seen as biased and considered less trustworthy than personal sources.

In contrast, consumer dominated channels are valued for their flexibility, trustworthiness and the quantity of information which can be provided about the product. These channels are often personally tailored to meet the needs of the person requesting the information. However, the accuracy of these channels, especially in highly technical information is questioned.[1] Bauer and Wortzel[2] examined media selection in terms of physician's preferred sources of information about new drugs. They found that the physician relies heavily on detail men from drug companies to alert them to the merits of various medications. Those medications requiring extensive research are referred to personal contacts with colleagues. The type of information source is related, then, to the nature of the information desired. For example, when consumers want product information they are likely to solicit it from friends or

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[1]Cox, "The Audience as Communicator," pp. 64-65.

[2]Raymond A. Bauer and Lawrence H. Wortzel, "Doctor's Choice: The Physician and His Source of Information about Drugs", Journal of Marketing Research 3(February 1966): 40-47.

neighbors who have expertise with the products.[1]

Similarly, when home buyers were surveyed as to the decision process used, it was noted that the relative importance of information sources was related to the type of decision being made. That is, interpersonal sources such as friends or coworkers were queried in making decisions relative to the social dimension such as the neighborhood and the real estate agent or builder to use. In contrast, commercial sources were more often sought in making decisions on technical matters such as where to secure a loan.[2]

In situations where considerable risk is present consumers tend both to use informal (personal) sources and to seek the maximal amount of information.[3] It has been determined that the preferred source of information for self-medication varies according to the perceived seriousness of the ailment. With diseases of increasing seriousness the preferred information source varies from advertising, friends, pharmacists, and physicians.[4]

In a study of consumer decision making about "over the

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[1]Cox, "The Audience as Communicators," p. 69.

[2]Hempel, "Search Behavior and Information Utilization in the Home Buying Process", pp. 241-249.

[3]Cox, "The Audience as Communicator, p. 69.

[4]Hansen, Consumer Choice Behavior, p. 182.

counter drugs" the four sources above were mentioned along with a fifth one-articles.[1] Of those interviewed, the greatest confidence was placed in the physician's recommendations especially in situations other than those involving minor ailments. Although advertising was disparaged by consumers, their knowledge of brand names reflected substantial advertising influence. Advertising largely served to gain awareness and arouse interest, and consumers often inquired further about these products with physicians, friends, relatives or pharmacists. Friends and relatives are highly valued as information sources with the impetus usually coming from the one who is seeking the information rather than from the giver. Pharmacists are viewed as experts, and their assistance is sought for specific questions. In contrast, the information provided by articles and newspapers is regarded with varying degrees of interest and skepticism.

Some decisions are made not from the gathering of information about the product but from other characteristics of the decision unit such as location and other convenience as well as a variety of social factors. For example, in selecting a physician some consumers are influenced by location and appearance of the office, social,

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[1]Engel, Knapp and Knapp, "Sources of Influence in the Acceptance of New Products for Self-Medication: Preliminary Findings," p. 778.

ethnic or religious characteristics implied by his name. Substantiating information previously cited, Feldman[1] verified that in the selection of a physician, a variety of sources, especially informal channels are used. Of 415 households surveyed 23 percent relied on independent observations such as those cited, and 20 percent of the respondents relied on professional referrals from a previous physician or the medical society. People in this group tended to be middle-aged, of a higher social status, and have fewer than average children. Eighteen percent relied on parents and relatives while 40 percent were advised on physician selection by friends and coworkers. Both of these groups were reasonably young and of a moderate social status.

Based on this study, Feldman classified interaction on physician selection into three groups: Those who seek advice from a referent of higher status tend to be under 25 or over 45 years, of the same social groups as their parents, be members of the same clubs as the referents and have known the referents over five years. In contrast, people who seek information from a referent of equal status tend to be over 45 years, to have married late in life, have no children and be employed in the same company as the

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[1]Feldman, "Some Dyadic Relationships Associated with Consumer Choice," pp. 758-775.

referent. Those who seek information from referents of a lower social status tend to be parents of younger and more children, be from a higher social group than their parents and be members of the same church as their referents. In terms of age of referents, younger ones are infrequently sought, whereas young advice seeks are more likely to query older referents.

In regard to the stage of market development, in most search decisions, interpersonal sources are deemed more reliable than marketer dominated sources; however, when it is a new or highly technical product, information supplied by the manufacturer is usually considered to be more extensive, accurate and readily available.[1]

This section has dealt with sources of consumer information including marketer-dominated information such as advertisements, publicity, promotion, personal selling, and visits to retail establishments; consumer-dominated or interpersonal sources including reference groups such as friends, neighbors, coworkers and relatives and lastly, neutral sources not directly influenced by either marketers or consumers and including newspapers, magazines, and other forms of mass media were presented. The relative importance and roles of information sources was described as well as ways to view the determinants of relative

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[1]Berkman and Gilson, Consumer Behavior, p. 468.

importance of sources of information.

ALTERNATIVE EVALUATION

The next step in the problem-solving process is evaluation of alternatives. As previously described, the purpose of the search behavior is to provide buyers with sufficient information to enable them to identify and discriminate among alternative courses of action in making purchase decisions. Once a problem is recognized, the various potential alternatives are carefully evaluated.

Search and evaluation of alternatives requires two related stages: (1) the establishment of criteria for making a selection and (2) identification of feasible alternatives. Consistent with previous aspects of the search process, people are affected by a wide range of factors as they seek to evaluate their alternatives and make the best possible decision. Characteristics such as culture, social class, family life cycle determinants,[1] the problem solver's level of aspirations, range of values and interests, perception of the relationship between the cost of the choice and the perceived payoff influence the

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[1]Granbois, "The Role of Communication in the Family Decision-Making Process," pp. 44-57.

selection of alternatives.[1]

Ideally in evaluating alternatives, the decision maker should know all available alternatives, the consequences of each as well as their probability of occurring. In such an ideal process all alternatives could be set forth, carefully evaluated as to advantages and disadvantages and ranked as to the probability each has of meeting the goal. One approach for the evaluation of alternatives includes the following three steps:

(1) Identification of all possible outcomes, both positive and negative, from each alternative.

(2) Assess the positive and negative value of each outcome as well as determining how effectively it will accomplish the objectives or requirements of a satisfactory solution.

(3) Estimating the likelihood of each outcome for each alternative.

This evaluation of alternatives may range from a simple to a highly detailed and complex process. Unfortunately complete knowledge about alternatives is rarely available, hence, alternatives tend to be evaluated on the basis of several key criteria. In regard to criteria for making a selection, as information is acquired through the

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[1]Kelly, "The Search Component of the Consumer Decision Process--A Theoretic Examination," p. 278.

search process and subsequently processed, beliefs are formed regarding each of the choices reviewed. The sum total of beliefs and the evaluations made about them represent an attitude toward the product or services.[1] Attitudes then influence whether the product or service is pursued or rejected. Usually a positive attitude is accompanied by an intention to act.

In describing the components of decision making which lead to the ultimate selection of one item, the starting point commences with the consumer's own evaluative criteria. These can be objective such as an opinion about the physical features and quality of the product or subjective and representative of symbolic values and benefits.[2] Evaluative criteria are largely influenced by two basic factors; motives and memory. Motives refer to personal goals which shape preferences for particular product attributes and are influenced by life-style. Likewise, evaluative criteria are affected by memory via incoming information gathered through search as well as first-hand experience.[3] Evaluative criteria are not static but rather

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[1]James F. Engel and Roger D. Blackwell, Consumer Behavior, 4th ed. (Hinsdale, IL: The Dryden Press 1982), p. 415.

[2]Ibid., p. 416.

[3]Ibid.

are influenced by new information and experiences.

There are several key characteristics of evaluative criteria with the two most important according to Engel and Blackwell[1] as being the number used in making a decision and the relative importance of each. In general, the higher the degree of involvement, the greater the number of evaluative criteria which will be entered into the decision. Likewise, some criteria are considered more important than others. Engel and Blackwell[2] differentiate between salience and determinance. Salience is used as a synonym for importance and determinance identifies the product attributes considered most important.

Brand reputation is usually a determinant criterion since the meanings associated with the brand name serve as a strong indicator of product quality. Since consumers are frequently unable to personally judge quality they rely on brand reputation to reduce the risk of making a poor choice. Similarly, many consumers associate price with quality as a determinant of product salience. It should be noted that consumers are not always aware of the price when they make a choice.

Additionally, in selecting among alternatives consumers often rely on some information stored in memory.

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[1]Ibid., p. 417

[2]Ibid., p. 418

Several approaches have been identified whereby a consumer uses a compensatory strategy in alternative evaluation such that the perceived weakness on one attribute may be compensated for by strength on others. Two compensatory models have been described: the expectancy model and the attribute adequacy model. In the expectancy value model it is assumed that more than one evaluative criteria will be used. Judgements are based on whether the object actually has the attribute as well as the perceived goodness and badness of the attribute. Each product is evaluated in accordance with the total number of attributes present. In contrast, with the attribute adequacy model the product is evaluated as described above, however, an explicit assessment is made of the difference between ideal and actual on each attribute.

In the noncompensatory models weakness in one attribute is not compensated for by the strengths of another. While less well known than the compensatory models, four major noncompensatory variations have been identified: Conjunctive, disjunctive, lexicographic and sequential elimination. In the conjunctive model, a consumer determines the minimum level of acceptability of each attribute, and the item is deemed acceptable only when each attribute meets or exceeds that minimum level. A lower than acceptable rating on any one attribute will lead to a rejection

of the total.[1]

In the disjunctive model, a level of acceptability is established for each criterion, and an item is acceptable if it exceeds the minimum level on any of the designated attributes. The goal is to select the first satisfactory alternative.

In contrast, in the lexicographic model attributes are ranked according to priority. The item that dominates on the highest priority attribute receives the highest rating. In the sequential elimination model the consumer establishes minimum cut off points for each attribute. "One criterion is selected for use and all alternatives whose attributes do not pass that cut-off point are eliminated."[2] The processing then moves to the next attribute. Compensatory strategies tend to be used when there is high consumer involvement, among consumers with more formal education and when a limited number of alternatives exits.[3] Consumers often obtain information for evaluating their alternatives from a variety of sources including primary information, secondary or mass communication, tertiary communication and personal communication.[4] In evaluating

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[1]Ibid., p. 422.

[2]Ibid., p. 422-423.

[3]Ibid., p. 423

[4]Hansen, Consumer Choice Behavior, pp. 181-186.

alternatives primary information is of limited value since this type of information is derived from access to the product. When the purchase involves a minor expenditure, the consumer may make such an investment in order to accurately evaluate the merits of the alternative. However, this would not be practical with products requiring sizeable expenditures.

In contrast, secondary sources of information are much more freely available via magazines, newspapers, brochures, catalogues, telephone books, radio, television, movies, and posters. Likewise, tertiary communication as observed in actually going to the store and viewing the product is an available source of information. Somewhat related to tertiary communication, when personal methods are used the consumer seeks information from salesmen, friends, neigh bors, family and so on. During the data gathering phase the consumer is continuously evaluating information in terms of the reliability and trustworthiness of the source, and the presence or absence of intentions to influence.

Each of these forms of communciation influences the consumers expectations of a product or service. Another aspect of the evaluation of alternatives deals with the evaluation of competitive products and services. Generally consumers involved in the problem-solving process are engaged in a continuous process of evaluation. "Consumers

evaluate information as they gather it, accepting, discounting or discarding information as it appears relevant and/or trustworthy".[1] The establishment and examination of alternatives depends upon multiple factors including the deliberation and exploration attached to the delineation of alternatives as well as the characteristics of the specific situation. Interestingly, whether the choice process occurs in the home or at a store influences the evaluation of alternatives.

One outcome of the stage of evaluation of alternatives is the decision not to purchase the product or service. Should this occur the consumer is faced with a variety of alternatives. One approach would be to recommence the search process and discover a new or modified set of alternatives. In reinstituting the search the consumer might lower the initial set of standards, settle for the best of the identified alternatives or continue seeking information about other possibilities.[2] In the following section specific attention is given to selection behavior. Once the alternatives are evaluated a choice is made. As mentioned above, the choice may range from postponing action to selecting what is judged to be the most desirable alternative.

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[1]Runyon, Consumer Behavior, p. 32.

[2]Schiffman and Kanuk, Consumer Behavior, p. 442.

SELECTION BEHAVIOR

Selection behavior is defined as choosing among the evaluated alternatives. Hansen[1] purports that two things are required to terminate the evaluation of alternatives and lead to selection. First, the excessive amount of conflict often engendered in the examination of alternatives must be eliminated. Secondly, some adjustment in the optimal level must take place. These two changes typically occur since perfect alternatives having no perceived or anticipated disadvantages are rarely found. According to Engel and Blackwell[2] choice is the outcome of two determinants: intention and unanticipated circumstances. The concept of intention was discussed under the evaluation of alternatives. However, the choice itself is often affected by unanticipated events. The potential for unexpected events to occur and the range of possibilities is great and an exhaustive discussion is not intended here. Several frequently observed events affecting the consumer's selection behavior include monetary factors, pressure from significant people or groups, lack of availability, convenience and so forth.

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[1]Hansen, Consumer Choice Behavior, pp. 181-186.

[2]Engel and Blackwell, Consumer Behavior, 4th ed., p. 491.

Thus, the purchase decision reflects the culmination of the search and evaluation process. On occasion this decision can be easily made. However, the difficulty level tends to increase with the level of psychological importance of the decision or potential consequences. Thus the potential for post-choice conflict is increased when the selection has significant consequences, when it cannot easily be reversed and when a high degree of volition is attached to the decision.[1] As might be expected there tends to be less post decision conflict or dissonance when reversibility is possible. Conflict in the face of an irreversible decision necessitates other and usually less direct means of handling the discomfort.

Similarly, the difficulty in making a choice is also increased by the number and quality of potential alternatives, the anticipated risk involved and the interaction effect of these variables. Rarely do situations exist in which selection of one goal has no effect on any other variable or goal. Additionally, it is not always possible to predict the interaction effect or potential consequences of decisions. For this reason, post selection behavior is a crucial aspect of the decision making process. The next section describes post-selection behavior, and the two

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[1]Hansen, Consumer Choice Behavior, p. 186.

major outcomes of a choice, satisfaction and dissonance are discussed.

POST-SELECTION BEHAVIOR

A decision or choice is followed by the final phase of the problem solving process, post-selection evaluation. The purpose of this behavior is to assess the entire problem-solving process. Not all choices meet the anticipated goal, hence, consumers must carefully monitor the outcome to see if it met their previously anticipated expectations. Despite careful planning and selection of alternatives it is not uncommon for some conflict to remain after a selection has been made. In general, two major outcomes of choice are found: (1) satisfaction and (2) dissonance.

Satisfaction refers to the perception that the selected alternative was consistent with previously established beliefs and expectations about the alternative.[1] In regard to satisfaction, post purchase evaluation has multiple effects on the future behavior of the consumer. For example, a happy satisfied consumer is all too willing to recommend the product or service, whereas, the reverse

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[1]Engel and Blackwell, Consumer Behavior, 4th ed., p. 501.

is often observed in dissatisfied decision makers. Additionally, the degree of satisfaction after the decision tends to be related to the level and characteristics which existed prior to the decision. A number of theories have been proposed to relate consumer expectations and actual product performance. Anderson[1] identified four such theories: assimilation, contrast, generalized negativity and assimilation-contrast. Essentially assimilation theory has been derived from the theory of cognitive dissonance. What assimilation proposes is that if a disparity exists between the consumer's expectations of the product and its actual performance then a state of psychological tension occurs whereby the consumer attempts to modify personal perceptions of the product to be more consistent with previously held expectations. On the other hand, contrast theory contends that when previously conceived expectations are not met by the attributes of the product, the disparity between expectations and reality becomes exaggerated. Additionally, generalized negativity theory holds that discomfirmed expectations will lead to a hedonically negative state which tends to generalize to the product. In assimilation-contrast theory minor discrepancies between

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[1]Ralph Anderson, "Consumer Dissatisfaction: The Effect of Disconfirmed Expectancy on Perceived Product Performance, Journal of Marketing Research 10(February 1973): 38-44.

expectations and reality are assimilated, whereas, larger discrepancies are exaggerated.[1]

Swan and Combs[2] emphasized the complexity of consumer satisfaction descriptors when they discussed the potential for differences to be noted in the characteristics leading to satisfaction and those leading to dissatisfaction. In making this distinction they differentiate two aspects of performance: (1) Instrumental performance refers to a means to a set of ends and refers primarily to the performance of the physical product, and (2) Expressive performance includes what the consumer considers an end in itself including psychological attributes such as style and expression of self-concept. The latter tend to be more influential in determining the purchase choice.

In addition in examining satisfaction, Swan and Trawick[3] demonstrated a distinction between predictive expectations (the expected level of performance) and

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[1]Anderson, "Consumer Dissatisfaction: The Effect of Disconfirmed Expectancy on Perceived Product Performance, pp. 38-44.

[2]John E. Swan and Linda Jones Combs, "Product Performance and Consumer Satisfaction: A New Concept," Journal of Marketing 40(April 1976): 25-33.

[3]John E. Swan and I. Frederick Trawick, "Satisfaction Related to Predictive vs Desired Expectations," Paper presented to Fourth Annual Conference on Consumer Satisfaction, Dissatisfaction and Complaining Behavior, Indiana University, Bloomington, IN October 4-5, 1979.

desired expectations (the desired level of performance). They found in their evaluation of the satisfaction associated with fabric cleaner that satisfaction with the product was achieved when product performance equaled or exceeded desired expectations. Indifference resulted with performance equalling predictive expectations, and performance below predictive expectations led to dissatisfaction. In the following section, dissonance will be discussed as a sign of dissatisfaction with the choice made.

Dissonance occurs "when two cognitions or beliefs do not fit together" thereby leading to a state of psychological discomfort.[1] It is believed that post decison dissonance occurs when a person realizes that although one choice was made, others also had desirable attributes. Dissonance can be reduced in a variety of ways including re-evaluating the desirability of the unchosen alternatives in favor of the selection made or by searching for information to confirm the choice.

Post decision doubts are most likely to occur when the action seems irreversible, the unchosen alternatives seem to have a number of desirable features, many alternatives were available, the person was psychologically committed to the decision, the available alternatives all seemed to have

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[1]Engel and Blackwell, Consumer Behavior, 4th ed., p. 505.

both desirable and undersirable features, and the person voluntarily (rather than being forced) ponders the quality of the decision.

People often tend to try to reduce the dissonance attached to an undesirable choice if considerable effort has already been exerted. According to contrast theory when a consumer receives a product less valuable than he expected he will tend to magnify the difference between what was expected and what was actually received. It is easier to employ contrast theory when limited amounts of effort have been attached to the choice. Thus if limited efforts were expended and the product was less favorable than anticipated the person would be in a better position to evaluate the product negatively than if great effort had been expended only to receive the unfavorable outcome.[1] When great effort is expended and the outcome is unsatisfactory, dissonance occurs. In this instance, dissonance can be reduced by decreasing the perceived disparity between what was expected and what occurred, but it cannot be reduced by magnifying this disparity. Thus both effort involved in arriving at the decision and expectation influences evaluation of the product.

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[1]Richard N. Cardozo, "An Experimental Study of Customer Effort, Expectation and Satisfaction," Journal of Marketing Research 2(August 1965): 244-249.

A variety of behaviors are employed in dealing with the tension associated with making a perceived faulty decision. For example, some people return to the place of purchase to re-examine their original alternatives, others review the literature which served as a basis for decision making while still others consult with other people.

The purpose, then, of search efforts is to provide the consumer with sufficient information to help identify and discriminate among alternatives. The main function of searching is to identify alternatives and to develop and implement criteria to evaluate them. Selection behavior refers to the choosing among alternatives and typically results in selection of one alternative, discontinuation of the search process, resumption of the search cycle, or failure to consummate the process due to variables beyond the consumer's control. The final phase of the purchase process includes post-selection evaluation and action. During this phase the consumer either consciously or unconsciouly evaluates the process and feels either satisfied or dissatisfied with the choice. If dissatisfaction results the person often experiences dissonance and takes action to relieve this feeling.

SUMMARY

This chapter has provided the theoretical approach and supportive research evidence which served as the organizing paradigm for the research model used in this study.

In the first two sections, terminology frequently encountered in the literature was defined, and basic premises which characterized consumer behavior as a subset of human behavior, interdisciplinary in origin, problem solving in approach, and rational in orientation were set forth.

In the next section a detailed discussion of models and model building was presented. Special attention was given to defining models as well as differentiating them from theories. In addition to two model classification schemes, a discussion of model building was presented.

The remainder of the chapter focused on the problem-solving approach to buyer behavior, which represents the organizing paradigm. The problem-solving approach was discussed in terms of its underlying premises, its relationship to decision-making, and the extent of its occurrence. A substantial proportion of this chapter was devoted to a detailed analysis of the various stages of problem-solving, with particular attention given to the discussion of empircally based research findings.

For the purposes of this study the organizing paradigm is represented by the problem-solving approach, which consists of the following stages: problem recognition, information search and processing, alternative evaluation, selection behavior, and post-selection behavior.

CHAPTER III

HEALTH CARE CONSUMER BEHAVIOR AND THE SELECTION OF A PRIMARY CARE PHYSICIAN

Throughout the United States and elsewhere in the Western world since World War II, there has been a growing interest and emphasis on health. Health permeates all human activities and affects every member of society in a variety of ways: directly or indirectly, individually or collectively, consciously or unconsciously. The health field, so complex that it is difficult to define its scope, involves a variety of different, yet interrelated sets of factors such as: biological, physical, economic, social, legal, technical, cultural, political, and public.[1] Because of this complexity it is necessary to describe the components of the health care system as a prelude to discussing health care consumers.

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[1]Samuel Levey and N. Paul Loomba, Health Care Administration: A Managerial Perspective, (Philadelphia, PA: J.B. Lippincott Company, 1973), p. 3.

A health system contains three major components: health care consumers, health care providers, and organizational mechanisms for the delivery of health care. Each component can be studied at various levels of aggregation, from macro to micro. Within the various levels of aggregation there are numerous sets of factors that can be studied as well as a variety of theoretical perspectives from which the subject can be approached.

Given the complexities of health systems, it is obvious that a comprehensive exploration and assessment of the three major components is not possible. Instead, the remainder of this chapter is devoted to examining the first component, health care consumers and their behavior. The objective is to review the literature on health care behavior in order to provide a broad conceptual framework for the research model presented later in the chapter.

A CONCEPTUAL FRAMEWORK OF HEALTH CARE BEHAVIOR

This section describes a framework for organizing a host of complex variables and processes relevant to understanding health behavior. The concept of health behavior is viewed as including all of the mental processes and physical activities undertaken by a consumer, involved in the acquisition and utilization of health related products and services, whether for maintaining, improving or

restoring health. As seen in Table 3.1 three general phases of health behavior can be identified: pre-utilization, utilization, and post-utilization behavior.

Pre-Utilization Behavior

Taken together there are six major determinants that influence the utilization of health care products and services. Each of these components will be reviewed in the discussion which follows:

Population at Risk. According to Schweitzer members of the population at risk or those people most vulnerable to health disruption are evaluated as being in a state of either health or illness according to objective medical criteria.[1] A variety of factors determine a person's potential to become part of the population at risk including biological composition, lifestyle and socio-environmental factors. No two people are born with the same genetic composition nor do any two individuals respond identically to environmental factors. As will be discussed later not all people, who are by objective measures part of an "at risk" population, recognize their status as such.

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[1]Stuart O. Schweitzer, "Incentives and the Consumption of Preventive Health Care Services," in Consumer Incentives for Health Care, ed. Selma J. Mushkin (New York: Prodist, 1974), p. 36.

Table 3.1

Components that Determine the Utilization of Health Care Products and Services

Pre-Utilization	
Stage I:	Population at risk
Stage II:	Perceived state of health
Stage III:	Situational analysis
Stage IV:	Types of health behavior
Stage V:	Levels of care
Stage VI:	Search behavior
Utilization	
Post-Utilization	

Perceived State of Health. The degree to which a service or product is consumed is related to perceived need. People are not always aware that they need health services especially when the services are preventive in nature. People are more likely to perceive a need for health care services when they are sick rather than when well. Pain and discomfort often motivate people to seek health care while people often must be educated about the need for preventive health services such as immunizations. It is believed that perception of need for health care services is influenced by income.[1] If people are unable to afford care they are more likely to ignore minor or non debilitating symptoms.

A person's education, specifically knowledge of health related matters affects perceived state of health as does previous health history. For example, people who have experienced lengthy bouts of chronic illness may not realize what a healthy state would be because their perception is colored by their own experiences and expectations. Likewise, culture influences a person's perception of illness. Health is determined uniquely for each cultural group.

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[1]Stuart O. Schweitzer, "Incentives and the Consumption of Preventive Health Care Services," in Consumer Incentives for Health Care, ed. Selma J. Mushkin (New York: Prodist, 1974), p. 38.

Situational Analysis. A wide range of factors influence potential consumers receptivity to health care including education, social and economic class, culture, past experiences, family influences, health beliefs and goals, as well as characteristics of the health care system itself including accessibility and quality of care.

Zubhoff and Dunlop[1] identified two categories of variables which influence consumption of preventive health services such as examinations, multiphase screening, and immunizations as being either constraint or behavioral. They describe constraint variables as defining the potential scope of demand, whereas, behavioral variables affect the decision to consume. Examples of constraint variables include age, sex, and occupation. Each of these variables influences the extent to which there is a physiological or psychological need for utilization of any given service.

Behavioral variables deemed influential include: perceived physiological need, health education, risk which might be incurred from non-acquisition, income, and cost.

In addition to constraint and behavioral variables, there are a number of enabling influences which affect

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[1]Michael Zubkoff and David Dunlop, "Consumer Behavior in Preventive Health Services," in Consumer Incentives for Health Care, ed. Selma J. Mushkin (New York: Prodist, 1974), p. 71.

whether services will be sought. For example, no matter how desirable a service may seem both monetary and non monetary costs affect the actual utilization patterns. Both the price of the service and the income level of the potential consumer influences utilization. For example, there are some segments of society whose incomes make them more vulnerable to cost factors. At the lower end of the income continuum health care can generally be compensated for through social service programs which may have large non monetary costs associated with them. Likewise, more affluent people have personal resources such as insurance coverage or actual money reserved to pay for care. The middle group who are too affluent to merit social service assistance yet who have limited insurance coverage and available cash reserves must carefully weigh the cost of any potential service.

Gaining in importance in relation to health care consumption are the non monetary costs which influence utilization. Examples of these costs tend to be related to the accessibility, quality, and coordination of services. Some services are difficult to utilize because of geographic inconvenience (not on public transportation route, no parking available), long waits, impersonal or rude treatment, or lack of coordination among services with each aspect of care being provided in a different location. Also, some potential consumers simply do not know where to

enter the health care system. Each of their inquiries may seem to lead to a dead end.

Types of Health Behavior. Health behaviors range from efforts to enrich a present state of health to those directed toward relief of symptoms. On one end of the health-illness behavior continuum lies health behavior which is directed toward preserving or promoting health. On the other end is illness behavior which is characterized as behavior subsequent to the perception of symptoms and directed toward diagnosis and treatment.[1] Interestingly, Kasl and Cobb[2] have added sick-role behavior as a third component of the continuum.

It has been observed that people displaying health behavior tend to be better educated, have higher income levels and are more intimately integrated into the community than their less health-oriented counterparts. Many of the actions characterized as being part of a health behavior framework are directed toward prevention of any potential disruption as well as a motivation to reach toward higher levels of health.

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[1]David Mechanic and Edmund H. Volkart, "Illness Behavior and Medical Diagnosis," Journal of Health and Human Behavior, 1(Summer 1960):86-94.

[2]Stanislav V. Kasl and Sidney Cobb, "Health Behavior, Illness Behavior and Sick Role Behavior," Archives of Environmental Health, 12(February 1966):246-266.

Preventive health services can be categorized according to their consumption by individuals or consumption by population groups. For example, individual consumption items would include immunizations, prenatal services, family planning, multiphasic screening, child welfare services and disease screening procedures such as for hypertension, diabetes, or tuberculosis. In contrast, publicly consumed products include water supplies, solid waste disposal, control of air and noise pollution, standards of food sanitation, occupational safety measures and control of disease vectors such as rats and insects.[1]

In contrast, illness behavior is directed toward finding a remedy for a perceived state of health disruption. As such, illness care includes both diagnostic and treatment services. Illness behavior commences when people perceive their health status to be in a state of disequilibrium, and there is a desire to find ways to return to a more stable health state.

Zaltman and Vertinsky[2] contend that illness behavior is only diagnostic in nature leaving all treatment to the behavior characterized as "sick-role". In terms of the

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[1]Michael Zubkoff and David Dunlop, "Consumer Behavior in Preventive Health Services," p. 65.

[2]Gerald Zaltman and Ilan Vertinsky, "Health Service Marketing: A Suggested Model," Journal of Marketing 35(July 1971):19-27.

incidence of sick role behavior, the average American typically has two episodes of acute illness per year creating the need to either seek medical attention or restrict activity for one or more days. Additionally, at least one-half of the population report having one or more chronic health conditions with approximately three-fourths of the population visiting or being visited by a physician annually.[1]

Levels of Care. In order to understand the unique characteristics of consumer behavior with regard to personal health services, the nature of such services to the individual warrants examination. For the purposes of this discussion, three levels or types of care are described: primary, secondary, and tertiary care.

Primary care, emphasizing prevention of illness and promotion of health, occurs at the point of first contact with a health care provider, is comprehensive and extends over a long period of time during which continuity of care rather than episodic care is emphasized. In primary care the consumer establishes and sustains a relationship with a primary care physician including those trained in pediatrics, family practice, and general internal

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[1]"America's Health Care System: A Comprehensive Portrait," Special Report, Robert Wood Johnson Foundation, 1978.

medicine.[1]

In contrast, secondary care usually occurs when the consumer is referred by the primary care physician to a specialist. Care at this level emphasizes early diagnosis and halting of the pathological process. In later stages of pathology secondary care includes "treatment to limit disability by averting or delaying the consequences of clinically advanced diseases."[2]

Tertiary care is highly specialized and sophisticated care which begins when a defect or disability is stabilized. The goal of tertiary care is to rehabilitate the patient to the optimal level of health possible considering the disability.

Consumers are at the forefront in making decisions relative to entering the health care system or selecting a primary care physician. However, once the consumer enters the health care delivery system decisions are generally made either by the physician alone or jointly by the physician, the consumer, and other members of the health

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[1]Philip D. Cooper and William J. Kehoe, "Health Care Marketing: An Idea Whose Time Has Come," in Research Frontiers in Marketing: Dialogues and Directions, ed. Subhash C. Jain (Chicago: American Marketing Association, 1978), p. 370.

[2]Sherry L. Shamansky and Cherie L. Clausen, "Levels of Prevention: Examination of the Concept," Nursing Outlook, 28(February, 1980), p. 106.

care delivery team. Consumers do not always have adequate knowledge to know when services are needed or exactly what kind of services should be sought first. Many illnesses seem to strike their victims without obvious warning, hence, consumers may seek primary care only to learn that their health state requires secondary care.[1]

Search Behavior. Many of the conditions included in typical models for pure and perfect competition as well as monopoly and oligopoly do not hold true for the seeking of physician services. Consumers cannot always detect the early signs of deviation from normal health; nor are they consistently well-versed in how to enter the health care delivery system. Rathmell[2] distinguishes between health care and other kinds of consumers when he points out that in most exchange processes customers take title to their goods upon purchase thereby severing the control of the seller over product consumption. Health care consumers place themselves in the hands of the provider who typically maintains control of the interaction.

Consumers are willing to relinquish their control because they have little knowledge about available services. Even knowing what services are available most

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[1]John M. Rathmell, Marketing in the Service Sector, (Cambridge, MA: Winthrop Publishers, Inc., 1974), p. 171.

[2]Ibid.

consumers are not sufficiently well-informed to determine what specific services are indicated. Additionally, since consumers are often unable to evaluate the quality of service delivered they tend to implicitly accept the opinions and decisions of physicians without question or validation through the securing of more than one opinion. Since the ethical code of the medical profession discourages advertising, consumers are unskilled in the search and screening process. They do not know what questions to ask to evaluate the quality of a physician's preparation, that is, board certification, trained at a superior hospital and so forth.

Consumers are not always aware that financial considerations potentially influence the physician's choice of treatment. Physicians often have financial investments in proprietary hospitals and may select treatments which offer greater monetary reward. Additionally, the critical nature of health care services and the realization that failure to seek or accept appropriate care could lead to death or disability, motivates consumers to accept the services recommended by the physician.

Historically, patients have been people for whom, to whom, and on whom things were done. Providers have demonstrated limited concern for the desires, beliefs, and attitudes of the consumer. While this behavior still holds true in many areas, there is a trend to allow consumers

some input into their own program of care. The most significant decision to be made by consumers is the choice of a physician who subsequently decides where, when, and what services will be delivered.

The making of such a significant decision as the choice of a physician is not always completed according to a systematic process. In a landmark study conducted among enrollees in a prepaid medical plan, the existence of a "lay referral system" was confirmed. In this study it was found that consumers usually began the search for medical care with a self-diagnosis. If self-diagnosis and self-treatment fail consumers consult members of their household then other lay people. Physicians were consulted only after the lay referral system had been exhausted.[1]

Utilization Behavior

The health care delivery system can be described as a "non system" made up of a large number of nonintegrated parts which operate with minimal collaboration. The basic units, especially the entry points, of the health care system are the office-based physician, general hospitals,

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[1]Lawrence H. Wortzel, "The Behavior of the Health Care Consumer: A Selective Review," in Advances in Consumer Research, Vol. III, ed. Beverlee B. Anderson (Cincinnati, OH: Proceedings of the Sixth Annual Conference of the Association for Consumer Research, 1976), pp. 295-301.

and extended care facilities.[1] The physician guides and determines what aspects of care will be provided. As health care services have shifted from general to specific, consumers have been faced with making difficult choices about where to enter the system.[2] Although it is sometimes costly and results in replication of services, consumers continue to enter the delivery system via the primary care physician who refers to appropriate specialists. In a survey of newcomers, Willenborg, Sacco, and Clapper[3] found that 70 percent evaluated getting medical help as being difficult, while 63 percent found that getting information regarding health care delivery was easy to obtain.

The Willenborg et al. study may indicate that the role of consumers in the health care system is changing with potential recipients of medical care seeking more information as part of their search or pre-decision behavior. The emphasis on primary care has motivated consumers to

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[1]Schweitzer, "Incentives and the Consumption of Preventive Health Care Services, p. 48.

[2]Rathmell, Marketing in the Service Sector, pp. 172-173.

[3]John E. Willenborg, John F. Sacco, and James M. Clapper, "Community Health Care," in The Consumer - Citizen and Community Satisfaction, (Occasional Studies No. 10, Division of Research, Bureau of Business and Economic Research, College of Business Administration, The University of South Carolina, 1976), pp. 47-60.

become active members of the health care team. Also, during the 1960's recipients of health services began to be viewed as consumers rather than exclusively as patients. The notion of consumer connotes a more active role on the part of the care recipient than does patient. The consumer concept acknowledges more bargaining power and freedom to make choices among the recipients of services than does the concept of recipient as patient.

Post-Utilization Behavior

Multiple reasons influence consumer satisfaction with health care services. Conceptually, satisfaction can be viewed as the after usage evaluation of a product or service.[1] The varied determinants of satisfaction include demographics, attitudes, communication, fulfillment of expectations, and access to health care.

Studies related to demographics and satisfaction have not conclusively established a relationship between patient satisfaction and specific demographic characteristics. For example, one study found men tend to be less satisfied than

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[1]Ralph L. Day, "A Model for Monitoring Consumer Satisfaction," in Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction, ed. H. Keith Hunt (Cambridge, MA: Marketing Science Institute, 1977):153-183.

women, and blacks tend to be less satisfied with services than whites.[1] In contrast, Hart and Bassett[2] found blacks and Puerto Ricans more satisfied than whites, while Mangelsdorff[3] found women to be less satisfied than men and Oriental-Americans were found to have the least amount of satisfaction compared to Caucasians, Blacks, and Mexican-Americans.

Satisfaction is also related to attitudes toward physicians. For example, Wriglesworth and Williams[4] found that higher confidence in the doctor was associated with greater satisfaction across a number of hospital care items. Jenny et al.[5] found that satisfaction was related

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[1]Barbara S. Hulka, Lawrence L. Kupper, Mary B. Daly, John D. Cassel, and Frederic Schoen, "Correlates of Satisfaction and Dissatisfaction with Medical Care: A Community Perspective," Medical Care 13(August 1975):648-658.

[2]William T. Hart and Louise Bassett, "Measuring Con sumer Satisfaction in a Mental Health Center," Hospital and Community Psychiatry 28(August 1975):512-515.

[3]David A. Mangelsdorff, "Patient Satisfaction Questionnaire," Medical Care 17(January 1979):86-90.

[4]Joyce M. Wriglesworth and J. Trevor Williams, "The Construction of an Objective Test to Measure Patient Satisfaction," International Journal of Nursing 12 (November 1975):123-132.

[5]Joanna Jenny, P. Jean Frazier, Robert A. Bagramiam, and John M. Proshek," Parents' Satisfaction and Dissatisfaction with Their Children's Dentist," Journal of Public Health Dentistry 33(Fall 1973):211-221.

to social-economic group, with high SES respondents being more satisfied when they viewed the dentist as highly competent; low SES respondents were more likely to cite warm and positive interactions with the dentist as a reason for satisfaction.

Berkanovic and Marcus[1] found that greater levels of satisfaction were observed when patients were provided with more extensive information. Likewise, a further study by Kincey, Bradshaw, and Ley[2] found satisfaction to be related to comprehension of information. Hence, providers should not only provide information, but also determine if it has been understood by the recipient.

Several investigators have examined the relationship between the fulfillment of expectations and the overall level of satisfaction. One study found that only 50 percent of the patients who were visited by a nurse when they had asked to see a physician were satisfied with their care in contrast to patients who had follow-up visits by

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[1]Emil Berkanovic and Alfred L. Marcus,, "Satisfaction with Health Services: Some Policy Implications," Medical Care 14(October 1976):873-874.

[2]John Kincey, Peter Bradshaw, and P. Ley, "Patient's Satisfaction and Reported Acceptance of Advice in General," Journal of the Royal College of General Practitioners 25(August 1975):558-566.

the nurse after first being seen by the physician.[1] The majority of patients in this second category reported being satisfied. Hart and Bassett[2] examined respondents according to whether they held no expectations of the health care provider or whether their expectations were realistic or unrealistic. The group with no expectations tended to be most satisfied and those with unrealistic expectations were the least satisfied.

Access to the health care system has also been found to be related to satisfaction. Lack of access due to the absence of a regular physician or lack of adequate health insurance coverage was associated with dissatisfaction in regard to perceptions of professional competence, and personal qualities, as well as the cost and convenience of services.[3] Berkanovic and Marcus[4] found that people who had difficulty getting to see a physician or who had to

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[1]P.R. Kaim-Caudle and G.N. Marsh, "Patient-Satisfaction Survey in General Practice," British Medical Journal 1(February 1975):262-264.

[2]Hart and Bassett, "Measuring Consumer Satisfaction in a Mental Health Center," pp. 512-515.

[3]Hulka, Kupper, Daly, Cassel, and Schoen, "Correlates of Satisfaction and Dissatisfaction with Medical Care: A Community Perspective," pp. 648-658.

[4]Berkanovic and Marcus, "Satisfaction with Health Services: Some Policy Implications," pp. 873-874.

wait an extensive period of time were more likely to be dissatisfied.

Both satisfaction and compliance have been related to utilization of services. In general people who are more satisfied with their care are more likely to be compliant with the prescribed treatment plan and also to be more satisfied with the services received. Ware et al.[1] found satisfaction to be related to utilization in terms of the usage of health services in which there was no pressing need for consumption. This could be translated to mean that consumers who are more highly satisfied with their care utilize more preventive health care services.

Likewise, Francis, Korsch, and Morris[2] found that compliance was influenced by such satisfaction items as the extent to which patients' expectations from the physician visit were unmet, that they failed to receive an adequate explanation and perceived an absence of warmth in the physician-patient relationship. Just as a variety of factors influence utilization of health services so do multiple factors affect the selection of a physician. The

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[1]John E. Ware, W. Russell Wright, Mary K. Snyder, and Godwin C. Chu, "Consumer Perceptions of Health Care Services: Implications for Academic Medicine," Journal of Medical Education 50(September 1975):839-848.

[2]Vida Francis, Barbara M. Korsch, Marie J. Morris, "Gaps in Doctor-Patient Communication," The New England Journal of Medicine 280(March 1969):535-540.

following section describes a normative model of physician selection derived from articles available in the lay literature.

A NORMATIVE MODEL OF PHYSICIAN SELECTION

The normative model has been constructed from analyzing 28 articles written between 1953 and 1978. These articles as seen in Table 3.2 appeared in lay journals and were easily accessible to all segments of the population. Each of the articles addressed the topic of physician selection. Based on a systematic content analysis of these articles a normative model has been constructed to depict the typical approach suggested in physician selection.

The process of physician selection is complicated due to lack of advertising, limited readily available information about this topic, and minimal opportunity to learn from repeat purchasing experience. Physicians have been reluctant to advertise because of the stigma attached to this practice. Hence, potential consumers are denied a generally recognized source of information. Further, products tend to be more actively advertised than do

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[1]Feldman, Sidney P. and Merlin C. Spencer, "The Effect of Personal Influence in the Selection of Consumer Services."

Table 3.2

Articles Comprising Normative Model

Title	Publication	Volume	Month	Year	Author(s)
How To Choose a Family Doctor-And Get The Best	Good Housekeeping	183	Aug.	1976	Bacialli, S.
How To Find A Good Doctor	Parents' Magazine	51	Aug.	1976	Brody, J.
Choosing A New Doctor	Retirement Living	17	Apr.	1977	Carl, R.L.
To Help Your Doctor Help You	The Reader's Digest	80	Mar.	1962	Chevalier, L.R.
How Good Is Your Doctor?	Newsweek	84	Dec.	1974	Clark, M.
How To Pick A Doctor	Ladies Home Journal	83	Jan.	1966	Cohn, V.
How To Pick A Doctor	Woman's Home Companion	74	Nov.	1947	Deutsch, A.
Examining Your Doctor	McCall's	100	Oct.	1972	Editorial Staff
How To Choose A Doctor	Business Week	2388	Jul.	1975	Flanagan, W.
How To Pick The Doctor For You	Mademoiselle	81	Jun.	1975	Frank, A., & Frank, S.
Get A Doctor. . .Before Illness Strikes!	Today's Health	34	Jun.	1956	Editor
The Best Doctor For You	Woman's Home Companion	77	Aug.	1950	Howard, C.
How To Find A Doctor For Yourself	Consumer Reports	39	Sep.	1974	Editor
How To Find A Doctor In A Strange Town	Better Homes & Gardens	39	Sep.	1961	Editor
How To Pick A Doctor	Changing Times	8	Sep.	1954	Editor

(Continued)

Table 3.2 (Continued)

Title	Publication	Volume	Month	Year	Author(s)
How To Pick A Family Doctor	U.S. News & World Report	75	Sep.	1973	Editor
How To Seek Out A Good Doctor	Changing Times	30	Feb.	1976	Editor
How To Choose A Family Doctor	American Magazine	158	Nov.	1954	Lake, A.
The Right Doctor For You	McCall's	104	Jan.	1977	Lipkin, M.
How To Pick A Doctor	Science Digest	37	Jan.	1955	Mahoney, T.
How To Choose Your Doctor	Harper's Bazzar	110	Feb.	1977	Markham, M.
Frank Talk On How To Choose-Use-Abuse Your Doctor	Today's Health	44	Oct.	1966	Maxwell, E.
How You Can Pick A Good Physician	Science Digest	73	Mar.	1973	Nolen, W.
How To Choose A Doctor	Better Homes & Gardens	56	Feb.	1978	Scott, M.
How To Rate Your Doctor	Ladies Home Journal	92	Oct.	1975	Sehnert, K., & Eisenberg, H.
Some Credentials For The Modern Family Doctor	Consumer Reports	25	May	1960	Editor
How To Get The Best Medical Advice For Life	Vogue	174	Aug.	1974	Switzer, E.
Too Many Wrong Ideas About Doctors	U.S. News & World Report	34	Apr.	1953	Editor

services. Feldman and Spencer contend that "the scope and quality of cues for consumer services is quite limited."[1] They surveyed 182 newcomers to a community to determine the variables in the decision-making process consumers used when selecting a physician. In their study, Feldman and Spencer designed a decision-making paradigm with three major variables: selection behavior, mediating factors and situational factors. Selection behavior referred to when the choice was made in proximity to when the resident moved. They found that residents generally selected a physician within a short time after arriving in the community and before any emergency occurred.

Regarding mediating factors the decision is not whether to make a choice, but rather when and how the choice is made. Specifically, four intervening variables were examined: precipitating factors, decision responsibility, information sources, and informational content. Feldman and Spencer found that women made the majority of decisions about physician choice. Additional sources of information were categorized into three groups: nonpersonal sources, personal professional sources, and personal nonprofessional sources. They found that younger, less

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[1]Feldman, Sidney P. and Merlin C. Spencer, "The Effect of Personal Influence in the Selection of Consumer Services."

experienced consumers were more likely to rely on personal sources (family, friends, neighbors) whereas older people seemed more confident in their decisions and relied more on nonpersonal and personal professional sources.

Based on the same decision making paradigm cited by Feldman and Spencer, Feldman[1] reported an additional study of consumer patterns in physician selection. Surveying 465 households all having at least one physician, he found that the majority of information influencing physician selection came from personal sources. Specifically he found that about six out of ten physician selection decisions are based primarily upon information and opinions of friends and relatives. Further, those seeking information from these sources tend to be younger and less experienced in the physician selection process. When physician selection advice is sought, the decision-maker looks to persons of similar family experience moving from their own parents to parents with families of a similar size and with children of approximately the same age.

From the review of the literature several themes arose pertaining to physician selection for new residents. First, because of the trend in health care toward specialty

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[1]Feldman, Sidney P., "Some Dyadic Relationships Associated with Consumer Choices," pp. 758-775.

practice the selection of a primary care physician has become complex. Prior to World War II approximately 65 percent of all practicing physicians were general practitioners. However, this number has decreased considerably to less than 15 percent.[1] It has become more lucrative and prestigious to specialize, hence the migration from general practice. Only recently have physicians pursued board certification in family practice. Physicians view board-certification as increasingly important since this credential aids in gaining appointment to prestigious university or hospital affiliations and yields higher reimbursement rates from third-party payers.

While each of the specialty boards has unique features the requirements of the American Academy of Family Physicians (AAFP) illustrate the certification trend. Membership in the AAFP is based upon the completion of one of the following: three years of approved graduate training, two years of graduate training plus two years of general practice, or one year of graduate training plus three years of general practice during which applicants must complete 150 hours of approved education.[2] After being accepted

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[1]"How to Find a Doctor for Yourself," Consumer Reports 39 (September, 1974): 681-684.

[2]Ibid.

for membership, active members must complete 150 hours of accredited postgraduate study every three years. The family practice board requires reexamination at regular intervals for continued certification.

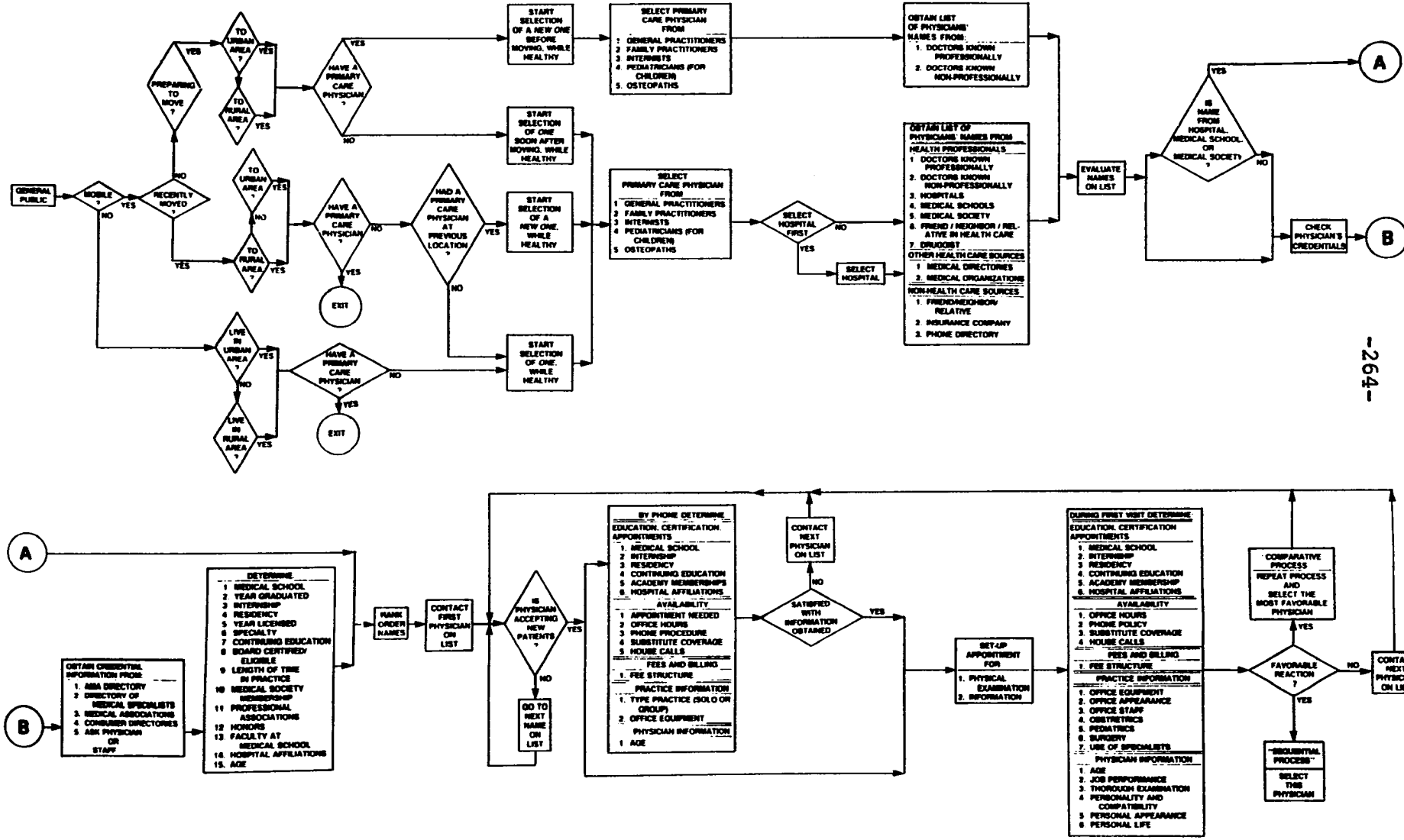
Internists also frequently serve as family physicians since their scope of practice is broad. This type of physician has postgraduate training in internal medicine which includes all areas of medicine except surgery, obstetrics, and pediatrics.

Likewise osteopathic physicians are frequently utilized for primary care as family physicians, with approximately 75 percent of this group serving as family physicians.

Of the 28 articles analyzed in developing the normative model, all 28 were directed toward the general public. Of these, 14 were also targeted toward the mobile population, and the remaining 14 addressed the needs of all people regardless of mobility. Of the articles pertinent to a mobile population, five discussed the health care needs of people who had recently moved as well as those preparing to relocate.

The normative model developed in this project begins (as seen in Figure 3.1) with the general public. For the purposes of this model only the mobile component of the general public are considered extensively. However, it should be noted that the general public always contains

Normative Model: Primary Care Physician Selection Process



both mobile and non-mobile components. For simplicity, nonmobile residents can be considered first. As seen in Figure 3.1, nonmobile residents either live in rural or urban areas and either do or do not currently have a primary care physician. Those with primary care physicians exit the model at this point since they are not actively engaged in the physician-selection process. In contrast, non-mobile residents without a primary care physician should approach the decision-making process similar to mobile residents. The process will be explained under physician selection for mobile residents.

Once a determination of mobility is made, the normative model describes two groups: those preparing to move and those who have recently moved. Of those preparing to move as seen in the pictorial display of the model, they are preparing to relocate to a rural or urban area and they either do or do not currently have a primary care physician. Six of the 28 articles addressed the needs of people moving to rural areas and the other 22 spoke to physician selection in urban settings.

In terms of problem recognition four of the articles explicitly stated that everyone should have a primary care physician. Of these four, two were specifically targeted to people preparing to move and the other two were directed toward residents who had recently moved. Twenty-four articles implicitly stated that everyone should have a

primary care physician, and of these, seven were directed toward people preparing to move while eleven addressed people who had recently moved.

The literature review suggested that the best time to begin the search for a primary care physician is when the person is still healthy. Thirteen of the articles explicitly encouraged physician search while still healthy and fifteen implicitly encouraged this.

Of the articles analyzed, nine encouraged beginning the physician search while preparing to move since the person is still healthy and has time to devote to this effort. An additional five articles implicitly encouraged mobiles to begin the search prior to relocating. Further, nine articles recommended beginning the search before the move if the person currently has or knows a doctor. One advantage of starting at that point is the group who have primary care physicians can begin by asking them for recommendations. Physicians often personally know colleagues in other areas or can provide names of members of medical groups or associations. Mobile residents with a primary care physician should select a new physician before moving or as soon as they are settled. In both cases, new residents should make a choice while healthy. Fourteen articles recommended that mobile residents should select a physician soon after relocating and while they are still healthy. Seven explicitly stated this, and the remaining

seven implicitly made this point. Of the articles analyzed, 12 urged physician selection soon after the move if the person had a physician prior to moving and 14 specifically recommended primary care physician selection soon after a move if the residents did not have a physician.

Mobile residents should select a primary care practitioner who is either a general practitioner, family practitioner, internist, pediatrician or osteopath. According to the articles reviewed people should obtain a list of physician's names from physicians they personally know or from physicians not known personally. Mobile people who have a primary care physician before they relocate should next evaluate the list of potential physicians. This is the point of convergence of activities between those who do and those who do not have a primary care physician before they move. To move the two groups concurrently through the remainder of the normative model it is necessary to examine the pattern utilized by mobile people who have recently moved.

Mobile residents come from either a rural or urban area. The new residents either had or did not have a primary care physician before they moved. If they have a primary care physician they exit from the model. In either case, according to the model it is anticipated that they will begin the physician selection process while they are

still healthy and like the previously described group who were preparing to move, they should select from the same five categories: general practitioners, family practitioners, internists, pediatricians, and osteopaths.

According to the model those making a selection after the move should also include hospitals and other health and personal contacts into their list of sources for physician candidates. Some people select a hospital before they select a physician. Regardless of whether a hospital is selected at this juncture or not, new residents should obtain a list of physician names from health professionals including doctors they know professionally and those known non-professionally, hospitals, medical schools, the medical society, friends or neighbors involved in health care and druggists. Non-health care sources includes friends, neighbors, or relatives, insurance companies and the telephone directory.

The discussion above has summarized the general focus of the normative model. However, the next step is to specifically itemize the content analyses gleaned from the literature review. Of the 28 articles analyzed, 26 recommended specific type(s) of primary care physicians. Of these, nine articles recommended one type of physician, five recommended two types, seven addressed three types, four articles discussed four types, and the final article recommended five types of primary care physicians.

In regard to physician specialty area as seen in Table 3.3, 20 articles recommended general practitioners; additional physician categories were recommended as follows: family practitioners (14), internists (16), pediatricians (8), and osteopaths (2). The following type of physicians were mentioned as not being recommended as primary care physicians: obstetricians and gynecologists (four articles), hospital emergency rooms and specialists other than the ones noted as desirable one mention each.

Search behavior as previously summarized includes many facets. As seen in Table 3.4 of the 28 articles, 24 recommended obtaining a list of names, two specifically encouraged selecting a hospital then getting a list of names and two did not state where to begin the search. Of the articles targeted for people preparing to move nine recommended getting a list. Similarly of the fourteen articles directed toward people who had recently moved, 13 suggested obtaining a list of names and one recommended selecting a hospital then securing a list of names. Regarding how many names to solicit in the search process the following, as shown in Table 3.5, were noted: two or three (2 articles) three (2), three or more (4), several (1) and sixteen articles made no mention of how many names to include.

Of the 28 articles analyzed, 26 mentioned specific sources of names for the search behavior with two making no specific recommendation as to source. Of these, nine were

Table 3.3

Recommended Types of Primary Care Physicians

Of the 28 articles reviewed, 26 recommended specific types of physicians according to the distribution below:

Articles recommending one or more types:

Number of Articles	Number of Types Recommended
9	one
5	two
7	three
4	four
1	five

Type of physician recommended:

Number of Mentions	Type Physician
20	General
14	Family
16	Internist
8	Pediatrician
2	Osteopath

Table 3.4

Summary: Search for Physician

How to Begin Search

Number of articles	Target Audience		Recommendation
28	General public	24	obtain a list of names
		2	select a hospital from a list of names
		2	no mention
9	Preparing to move	9	obtain a list of names
14	Recently moved	13	obtain a list of names
		1	select hospital then list of names

Table 3.5

Number and Sources of Physician Names

Number of Mentions	Number of Names Recommended
2	Two - Three
2	Three
4	Three or more
1	Several
16	No mention

Source of Names Mentioned	Target Audience
26	General public
9	Preparing to move
14	Recently moved

directed toward people preparing to move and 14 toward those who are recently moved. The remaining articles dealt with the general area of physician selection. As mentioned, major sources of names for physician selection doctors, hospitals, medical societies, medical schools, friends, neighbors and relatives engaged in health care, druggists, insurance representatives. As can be seen these sources are all health related.

The Hospital Strategy

According to the advocates of the hospital strategy, one of the best ways of obtaining the names of good physicians is to start by selecting a hospital. To select a hospital there are several factors the consumer should know about hospitals. When consumers select a personal physician, they are selecting more than a lone practitioner. The consumer also selects the hospital that the physician uses for patient care. But hospitals differ sharply in quality of care and in scope of services.[1]

Some hospitals are community health centers, offering comprehensive services that range from prenatal care through diagnosis and treatment of physical and mental

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[1]"How To Find A Doctor For Yourself," pp. 683-684.

diseases, and beyond that, rehabilitation programs, emergency and other outpatient services, patient and community health education and, in some cases, home care. In contrast, other hospitals limit their services to specialized areas, such as maternity, children's diseases, psychiatric, eye-ear-nose-and throat, respiratory, chronic diseases, orthopedic, alcohol or drug addiction. Therefore, when a consumer is judging or selecting a physician, it is important to consider the hospitals to which the physician admits patients. In judging a hospital, the consumer should ask three main questions: Is the hospital accredited?; Is it a teaching hospital?; and Who owns the hospital?

Consumers rarely realize that to some extent quality of care can be judged by whether the hospital is accredited. Almost 75 percent of general hospitals in the United States are accredited by the Joint Commission on Accreditation of Hospitals (JCAH). At the request of a hospital, members of the Joint Commission (American Medical Association, American Hospital Association, American College of Physicians and the American College of Surgeons) survey its medical and nursing care, safety practices and other facets of administration. If Commission standards are met, the hospital is accredited, subject to periodic reappraisal. Accreditation does not guarantee that a hospital is first-rate, but it does reduce the likelihood of substandard

medical care and a hazardous physical plant. A certificate acknowledging accreditation is often found in the hospital lobby or administrator's office.

Another mark of a good hospital is that it is a teaching hospital, and has formal programs for training medical personnel. The higher the level of training, the higher the level of medical services a hospital is likely to provide. The best indicator of a good teaching program is affiliation with a medical school. Such hospitals are likely to have available the services of qualified family physicians and a full range of specialists. They often have full-time staff physicians in charge of key departments, and they attract many good young physicians who want residency training in specialties. Teaching hospitals are usually large facilities and may provide impersonal although capable care.

Since medical schools and their affiliated hospitals are not evenly distributed across the nation, the consumer may not have easy access to any of them. Similar benefits, however, can be obtained from a nonaffiliated hospital approved for residency training in medicine and surgery. The next best choice is a hospital that has a nursing school or training programs for ancillary personnel, such as laboratory or x-ray technicians.

The third area of concern, to the consumer, is the form of hospital ownership. There are three general

categories of ownership: voluntary non-profit, proprietary, and public or governmental hospitals.

Voluntary non-profit hospitals are community institutions, governed by an unsalaried board of trustees comprised of community leaders or a religious order. This type of hospital is supported by patients, private endowments, contributions and government programs providing services for those unable to pay. These hospitals generally offer good medical facilities, competent ancillary staff and provide for inspection, evaluation, and control of the medical activities of affiliated doctors.

Proprietary hospitals are commercial establishments frequently operated by laymen as a business and generally run for profit. In some areas a private hospital may be organized by a group of physicians. They are, of course, intended to help sick people, but they are also intended to make a profit. The physical surroundings are often plush, and the food may be tastier than that in voluntary hospitals. While some proprietary institutions exert less control over the medical qualifications and activities of their affiliated physicians than other types of hospitals, others maintain high standards of patient care, develop a variety of innovative programs while maintaining fiscal autonomy.

Public or governmental hospitals, some quite large and others small, are supported by federal, state or local tax

funds, or a combination of these. These hospitals share a distinctive mission--they provide medical care for the indigent and special groups such as servicemen, veterans, merchant marines, patients with long-term illnesses (though any sick person, regardless of need, may be admitted to such hospitals). In general, they offer good medical services. In those that are affiliated with medical schools, the facilities and staff may be superb. Government sponsored institutions may have less comfortable accommodations than voluntary hospitals, and services are often curtailed when government budgets are cut.

Once the consumer has located the best hospital in the community (according to the experts this would be an accredited, non-profit, teaching hospital affiliated with a medical school), the next step is to contact the hospital for several names of physicians. Not all authors agree on the proper person to contact. Table 3.6 lists the recommendations found in the literature.

After making contact with a hospital representative, the next step is to request the names of several physicians on the hospital staff. Generally the best doctors are found on the staffs of the best hospitals.[1] It should be

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[1]Albert Deutsch, "How To Pick A Doctor," Woman's Home Companion 74(November, 1947):38; Alice Lake, "How To Choose A Family Doctor," American Magazine (November, 1954):47; Tom Mahoney, "How To Pick A Doctor," Science

Table 3.6

Recommendations of Sources to Contact Within Hospital for Names of Physicians

Source	Number of Mentions
Chief of Staff	1
Public Relations Office	1
Assistant Administrator	1
Intern or Resident on duty in emergency room	1
Head of the Department of Family Medicine	1
Hospital in general	9

noted that some good doctors are not "joiners" and in addition hospital affiliation is sometimes denied doctors for reasons that have nothing to do with their ability.[1] Although most authors agree on the subject of hospital affiliation, there is little agreement about the type of doctor the consumer should ask about. Some authors suggest requesting a list of general practitioners[2] or family practitioners,[3] some suggest internists,[4] while others do not make any specific recommendations, but instead suggest requesting the names of several physicians who are on the attending staff.[5]

Digest (January, 1955):27; "How To Find A Good Doctor In A Strange Town," Better Homes and Gardens: 39(September, 1961):35: Lois R. Chevalier, "To Help Your Doctor Help You," Reader's Digest (March, 1962):97; Victor Cohn, "How To Pick A Doctor," Ladies Home Journal 83(January, 1966): 34; "Examining Your Doctor," McCall's 100(October, 1972): 22; William A. Nolen, "How You Can Pick A Good Physician," Science Digest 73(March, 1973):38; Matt Clark, "How Good Is Your Doctor?", Newsweek 84(December 23, 1974):49; "Some Credentials For The Modern Family Doctor," Consumer Reports 25(May, 1960):270.

[1]Mahoney, "How to Pick a Doctor," p. 27.

[2]"How To Pick A Doctor," Changing Times 8(September, 1954): 28-29. "How To Find A Doctor For Yourself," Consumer Reports 39(September, 1974): 684.

[3]Chevalier, "To Help Your Doctor Help You," p. 97.

[4]Susan Bacialli, "How To Choose A Family Doctor--and Get The Best," Good Housekeeping 183(August, 1976):169; "Some Credentials For The Modern Family Doctor," p. 270.

[5]Deutsch, "How To Pick A Doctor," p. 38; Clive Howard, "The Best Doctor For You," Woman's Home Companion

It is important that the consumer understand the designation "attending staff." An attending staff appointment means that the physician has been fully accepted as an equal by his colleagues and is himself eligible to serve on reviewing committees.[1] Following attending physicians, the next best are associate, and then assistant attendants.[2] Visiting or courtesy staff may mean any of several things. It may mean that he is a young man with excellent training who just has not been with the hospital long enough to be promoted yet. It may mean that the other doctors are not encouraging him to work with them. Or, it may mean that he takes most of his patients to some other hospital and has an attending staff appointment there.[3]

Once the consumer has located the best hospital in the community, visited or called the hospital, and requested the names of several attending, associates or assistant attending staff members who are willing to accept new clients, the remaining steps in the search process become quite similar, regardless of the strategy selected.

77(August, 1950): 6; Mahoney, "How To Pick A Doctor," p. 27; Cohn, "How To Pick A Doctor," p. 34; "How To Pick A Family Doctor," p. 42.

[1]Cohn, "How To Pick A Doctor," p. 34.

[2]Deutsch, "How To Pick A Doctor," p. 38.

[3]Cohn, "How To Pick A Doctor," p. 34.

Content analysis of the general public literature revealed 22 articles directed toward the general public and 12 toward people who had recently moved. Of the general public articles, seven recommended that only accredited hospitals should be approached for a list of names, four addressed securing the list from a hospital affiliated with a medical school, two from training hospitals, and three from community hospitals. Articles targeted toward the recently moved population suggested the following hospital priorities for securing lists of primary care physician names: accredited (3), affiliated with a medical school (1), training hospital (1) and community hospital (1).

The Local Medical Society Strategy

The second most frequently mentioned strategy for obtaining the names of physicians is to start by calling the local health organization[1]--the city, county,[2] and

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[1]"Get A Doctor. . .Before Illness Strikes!", Today's Health 34(June, 1956):29; Bacialli, "How To Choose A Family Doctor--and Get The Best," p:169; G. Edward Maxwell, "Frank Talk On How To Choose, Use, Abuse Your Doctor," Today's Health 44(October, 1966) p:51.

[2]Clive Howard, "The Best Doctor For You," p:6; "Too Many Wrong Ideas About Doctors," U.S. News and World Report (April 3, 1953) p:50; "How To Pick A Doctor," Changing Times, p:28; Lake, "How To Choose A Family Doctor," p:47, 102; Mahoney, "How To Pick A Doctor," p:27; "How To Find A Good Doctor In A Strange Town," p:35; "Examining Your

state[1] medical societies. The medical society will not recommend one specific doctor,[2] but they will provide a list of qualified physicians in any field[3]--general practitioners,[4] internists,[5] and so on--practicing in the consumer's neighborhood.

As previously mentioned, not all authors advocate this strategy, in fact several authors made a specific point of discouraging consumers from using the local medical society as a source of names. Generally, these authors view the medical society as being a step above the blind choice of relying on the advice of a friend with no special knowledge or the recommendation of a drug store clerk who may let personal friendship for a particular doctor get in the way

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Doctor," McCall's 100(October, 1972) p:22; Nolen, "How You Can Pick A Good Physician," p:38; "How To Pick A Family Doctor," p:42.

[1]Lake, "How To Choose A Family Doctor," p:47, 102.

[2]"Examining Your Doctor," McCall's, p:22; Nolen, "How You Can Pick A Good Physician," p:38

[3]Clive Howard, "The Best Doctor For You," p:6; "Too Many Wrong Ideas About Doctors," p:50; "Get A Doctor. . . Before Illness Strikes!", p:29; "How To Find A Good Doctor In A Strange Town," p:35; Maxwell, "Frank Talk On How To Choose, Use, Abuse Your Doctor," p:51; and "How To Pick A Family Doctor," p:42.

[4]"Too Many Wrong Ideas About Doctors," p:50; and "How To Pick A Doctor," p:28.

[5]Mahoney, "How To Pick A Doctor," p:27.

of objective selection.[1] The local medical society, according to the critics, is more official, but not much more informative, than the list in the Yellow Pages of the telephone directory.[2] If a physician does not belong, the consumer should ask searching questions about him. Hence, not all members of the local society are going to be good physicians.[3] In short, local societies are not the most selective organization, rarely do they drop a physician's membership. The method of recommending physicians from rosters varies from county to county. Some keep a rotating file of members and give inquirers the next three or four names on the list. The only certainties for consumers seeking physician names from the medical society is that prospects graduated from medical school, are licensed to practice, are considered ethical, and have paid their medical society dues.[4] This method, according to its critics, is no index to the medical skills of the physicians recommended.

Content analysis revealed 16 articles addressed to the general public which recommended contacting the medical

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[1]Deutsch, "How To Pick A Doctor," p. 106.

[2]"How To Find A Doctor For Yourself, p. 684.

[3]Cohn, "How To Pick A Doctor," p. 35.

[4]"Too Many Wrong Ideas About Doctors," p. 50.

society and two which specifically stated this was not a good source of names. Twelve articles directed toward people who had recently moved suggested contacting the medical society.

Other Initial Sources of Information

In addition to using a hospital or local medical society as an initial source of information for identifying the names of physicians, several other sources are mentioned in the literature. While each of these sources have some merit, none enjoy the popularity of the hospital or local medical society. Hence, these additional sources, according to their advocates, should only be used as supplementary sources of information in situations precluding the use of hospitals or the local medical society.

These additional sources can be classified into two groups: personal and impersonal sources of information. The first group includes medical school faculty, doctors, friends, relatives and neighbors with special knowledge of the health care system, druggists, insurance companies, and information from friends, relatives and neighbors without any special knowledge of the health care system. The second group includes medical directories, medical organizations, and the Yellow Pages of the telephone directory.

Consumers who are fortunate enough to have a medical school in their town will find this institution to be a valuable professional source of information. A telephone inquiry to the medical school may produce the names of internists or family practitioners, either on the faculty or recommended by the faculty, who practice in the community.[1] Content analysis revealed that eight general public oriented articles recommended contacting the medical school (especially its Department of Family Practice or Internal Medicine) and four of the articles for people who had recently moved advocated a medical school source.

Another valuable source of information, according to the literature, is a family's current physician. If a family is moving to a new town and they currently have a physician, either a generalist or a specialist, they ought to begin searching for a new physician before the actual move. The simplest way is to ask a physician whose judgment is trusted to recommend someone. The physician may be acquainted with others in the new town, either personally or by reputation. In the event the physician does not know of anyone, he can attempt to refer the consumer to physicians whose training and experience seem particularly suited to the consumer's medical requirements. Equipped

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[1]Cohn, "How To Pick A Doctor," p. 35.

with the name or names of several physicians, the consumer can either use their services or use them as a source of information to locate other physicians who are capable and who practice in the area close to the consumer's new home.[1]

Specific content analysis of articles indicated that 14 of the articles directed toward the general public recommended doctors. Of these, 11 suggested that the physicians should be professionally known to the seeker while the remaining seven indicated the physicians did not have to be professionally known. Nine of the articles specifically addressed people preparing to move and of these, nine indicated that the physician source should be personally known to the person while one said the physician may or may not be known. Of the five articles directed toward people who had recently moved, three said the physician should be personally known, three said it did not matter.

If a family decides to wait until after it has relocated before locating a physician, several sources of information, other than the ones previously mentioned, are available. Perhaps the family has a friend, relative or neighbor who happens to be a nurse or another member of the medical community. This person may often prove to be a

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[1]"How To Pick A Doctor," p. 28: and "How To Find A Doctor For Yourself," p. 684.

valuable lead to a family doctor.[1] From the content analysis it was noted that four articles for the general public recommended this source as did two targeted toward people who had recently moved.

Other potential sources of information, suggested in the literature, are the local druggists, a minister, the local office of a large casualty insurance company, the person in charge of group insurance and workmen's compensation, and friends, neighbors, and relatives.[1] Although many druggists may be familiar with the medical resources of the local community, the wise layman in search of a physician should not rely on the recommendation of a drug store clerk who may let personal friendship for a particular doctor interfere with objective selection.[2]

Druggists were mentioned two times in the general public articles; one article recommended them and the other

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[1]Lake, "How To Choose A Family Doctor," p. 46, 104; "How To Find A Good Doctor In A Strange Town," p. 35; Maxwell, "Frank Talk On How To Choose, Use, Abuse Your Doctor," p. 51; "How To Pick A Family Doctor," p. 42; "How To Find A doctor For Yourself," p. 97.

[1]Lake, "How To Choose A Family Doctor," American Magazine, p. 46; and Chevalier, "To Help Your Doctor Help You," p. 97.

[2]"Get A Doctor. . .Before Illness Strikes!", p. 29; and Maxwell, "Frank Talk On How To Choose, Use, Abuse Your Doctor," p. 51; Lake, "How To Choose A Family Doctor," pp. 102-103; Mahoney, "How To Find A Good Doctor In A Strange Town," p.35.

did not. Similarly, two articles for people who had recently moved suggested druggists as a source of information. Insurance and workmen's compensation were suggested as information sources in two general public articles and one article for people who had recently moved.

Likewise, the consumer may consult friends, neighbors and relatives whose judgment they trust for the names of physicians. Although this approach may be the easiest, and the one most people choose, it is not a perfect system and the consumer could wind up with a physician whose personality is far superior to his medical skills. Friends, neighbors, and relatives may have limited knowledge about a physician's capabilities.[1]

The content analysis revealed that seeking information from friends, relatives and family members who had no expert knowledge of the health care system was mentioned in nine general public articles. However, seven additional articles discouraged this source of information. Likewise, seven articles addressing people who had recently moved, suggested this source while three specifically did not recommend this source of information.

The last group of initial sources of information for the names of physicians, recommended in the literature, is

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[1]Deutsch, "How To Pick A Doctor," p. 106.

a collection of impersonal directories. The American Medical Association publishes a Directory which includes the name and other pertinent information of every licensed physician in the United States. The Directory can be found in hospitals, public libraries, medical society offices, and in the office of some doctors. Thus, a consumer could find the names of several qualified physicians who practice in the local area by consulting this document.[1]

Consumer groups in some communities have been responsible for compiling professional directories. Information which can be included in such directories include introductory facts about specific health care providers such as name, address, specialty, and type of personnel employed in the practice. Another information category relates to provider's education, certification, and appointments to either university faculties or hospitals. A third general category on such directories addresses physician availability including office hours, answering service arrangement, after hours coverage, whether (and if so when) telephone consultation and house calls are available, and general length of wait for appointments. A fourth area

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[1]"How To Pick A Doctor," p.29; Deutsch, "How To Pick A Doctor," p. 106; "Examining Your Doctor," p. 22; Nolan, "How You Can Pick A Good Physician," p. 37; "How To Pick A Family Doctor," p. 42; and "How To Find A Doctor For Yourself," p. 684.

includes fees and billing, and the final content addressed in consumer directories might be information about physician practice preferences such as whether laboratory procedures are completed in the office or sent to a control lab. The content analysis revealed that five general public articles recommended the use of medical directories as did four articles for people who had recently moved.

Two additional impersonal sources are the national headquarters of the American Academy of Family Physicians and the American Academy of General Practitioners. Each of these organizations will provide a list of its members in the consumer's area. Although these organizations will not recommend one physician, the consumer can be sure that the list of people are medically qualified.[1] Two general public and two articles for the recently moved category recommended seeking information from medical organizations.

The last impersonal source suggested in the literature, is the Yellow Pages of the telephone directory. Only two general public and two recently moved articles advocated this source of information. In addition four general

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[1]Deutsch, "How To Pick A Doctor," p. 38; Howard, "The Best Doctor For You, " 6; "How To Pick A Doctor," p. 29; Lake, "How To Choose A Family Doctor," pp. 102-103; "Get A Doctor. . .Before Illness Strikes!", p. 29; and Maxwell, "Frank Talk On How To Choose, Use, Abuse Your Doctor," p. 51.

public and one recently moved source specifically discounted the telephone directory as a source of information.

Summary of Strategies for Obtaining Names

The purpose of this section has been to review the suggestions and recommendations, as they have appeared in the layman's literature over the last 30 years, for gaining initial access to physicians' names. While many suggestions were made, two initial sources of names were mentioned more frequently than others. In fact, a hospital was suggested in the majority of articles reviewed followed by the local medical society. The remaining sources of information were usually mentioned as supplementary sources and ranged from informed personal sources within the medical system to totally uninformed impersonal sources such as the Yellow Pages in the telephone directory.

Once the consumer has collected the names of several physicians, he is ready to move to the next stage of the model, evaluation of the physicians on the list.

Evaluation of Alternatives

Once the list of physicians has been generated the consumer is faced with the task of evaluating the alternatives in order to ultimately rank the names and make a

choice. The basic question to be asked relates to whether each name on the list represents a physician who is good for an individual or the family. As can be seen in the model the process splits here depending on where the list was originally secured. If the list came from a hospital, medical school or the medical society there is less need to check the physician's credentials so the consumer can begin to rank order the names.

However, if the names were provided by less credible sources the consumer should be encouraged to seek additional information to document the physician's credentials. According to the content analysis, 21 articles recommended further determination of credentials. Seven articles concluded that that credentials were generally predetermined if the names came from hospitals (5), medical schools (2) and the medical society (1). As seen in Table 3.7 consumers can obtain specific information to verify physician credentials.

According to the content analysis fifteen categories of credentials should be verified to aid in primary care physician selection. The articles reviewed mentioned several characteristics with far greater frequently others. Table 3.8 itemizes credentials according to descending order of mention in the articles analyzed.

Once this information is obtained, the consumer should rank order the names on the list and contact the first

Table 3.7

Verification Sources of Physician Credentials

Source of Verification & Information	Number of Articles Citing This Source
American Medical Association Directory	12
Directories of Various Medical Specialties	7
Local Medical Association	9
Other types of directories	2
Asking physician or other staff member	2

Table 3.8

Characteristics to be Verified in Selecting a Primary Care Physician

Type of Credential	Number of Articles Citing this Credential
On staff at a local hospital	15
Board certified or seeking certification	15
Specific medical school attended	13
Residency training including type	11
Membership in medical society	9
Area of specialization	7
Member in other professional associations	7
Faculty of medical school	7
Age	6
Served intership	5
Year medical license granted	4
Length of time in practice	3
Honors received	3
Participation in continuing education	3
Year of graduation from medical school	2

physician on the list. Whether the physician is accepting new patients determines if the consumer goes to the next name on the list or solicits additional information necessary to make a decision from the first contact. Once the first name is generated the content analysis revealed that consumers may wish to ask a number of additional questions. These questions, according to the model, fall into five general categories: (1) education, certification and appointments, (2) availability; (3) fees and billing, (4) practice information (5) physician information.

Specific information to be secured under education, certification and appointments and the numbers of articles suggesting the procuring of this information includes: medical school attended (13), place of internship (5), residency (11), participation in continuing education (3), academy membership (1) and hospital affiliation (15).

Regarding physician availability consumers were encouraged by the articles reviewed to identify whether an appointment is needed for each visit (2), what the office hours are (3), phone policies and procedures (2), availability and arrangements for substitute coverage (4), and whether house calls are available and if so under what conditions (4).

Five of the articles recommended that consumers seek information early in the physician selection process relative to fee structure and billing process. There was

minimal emphasis on practice information and physician information with only one article each recommending that consumers inquire into: type of office equipment available, type or practice (whether group or solo) and age of physician.

If the consumer is not satisfied with the information gleaned during the initial physician analysis the next step is to contact the next physician on the list and repeat this screening process. However, if the consumer is satisfied the next step is to set up an appointment. Nineteen articles recommended this step. Of these, all nineteen suggested using the appointment for getting additional information, ten suggested securing a physical exam during the first visit and ten articles recommended both getting the exam and seeking additional information.

According to the normative model the information secured during the first visit can fall into the same five categories as were included in the initial step of ranking physicians. In the category of education, certification, and appointments the original six areas of data gathering were repeated. Specifically, one article recommended securing the name of the physician's medical school during the first visit, while six each recommended asking questions about academy membership, and nine about hospital affiliation.

Questions during the first visit regarding when the

physician would be accessible to clients included three about office hours, two about telephone policies and procedures, four about substitute coverage and eight about house calls. In addition, eleven articles recommended asking about fees during the first visit.

Just as with the pre-visit questions only a limited number of articles recommended asking about the more general categories of practice information. Two articles suggested asking about both office equipment and staff and five recommended examining office appearance. Additional practice questions not previously addressed in the pre-visit query dealt with scope of practice. That is, one article each suggested that consumers should inquire whether physicians' included obstetrics or pediatrics in their range of services, two recommended asking if the physician performed surgery, and four recommending inquiry into the physician's policy regarding the use of specialists.

Finally, some of the articles suggested asking during the first visit or subjectively assessing six additional categories of physician information. Three recommended determining the physician's age, one suggested an evaluation of personal appearance and three suggested obtaining information about the physician's personal life. Also, sixteen articles advocated assessment of the physician's personality and compatibility with the consumer. An

additional nine and seven, respectively, encouraged assessing job performance and thoroughness of the examination.

Once answers are secured to these questions and concerns, the consumer is ready to make a selection. The process may be either comparative or sequential. If it is sequential and the first physician on the list is acceptable, selection is made at this point. If the questions yielded an unfavorable response the consumer now repeats the process by going to the second name on the list. If the process is comparative, the evaluation is performed on several more names until two or three favorable candidates are identified, then one is selected.

SUMMARY

This chapter has set the stage for the development of a conceptual framework to guide the research reported in this dissertation. The complex nature of health care was reviewed and the three major components of health care consumers, health care providers and organizational mechanisms for the delivery of health care were set forth as basic parts of the system. Only the first component was addressed in this chapter.

The conceptual model served as a mechanism for organizing a variety of complex variables and processes inherent in health behavior. The view subscribed to in the model

holds that three general types of health behavior exist: pre-utilization, utilization and post-utilization. Six major components were identified as influencing and determining the utilization of health care products and services. These components are: population at risk, perceived state of health, situational analysis, types of health behavior, levels of care and search behavior.

Following the delineation of the above six components, utilization behavior was described in regard to what is unique about utilization behavior and patterns in health care. One unique feature, the physician as controller of entry into the system, was addressed.

Post-utilization behavior was of interest in that despite limited consumer control and choice once entry is made into the system, there tends to be a great deal of satisfaction with the quality of care received. Several determinants of satisfaction were reviewed including demographics, attitudes, communication, fulfillment of expectations and access to health care. Interestingly, compliance was reported as being associated with satisfaction.

The second major section set forth the normative model for selection of primary care physicians as derived from a comprehensive review of the lay literature. Of the 28 articles reviewed in the development of the normative model, all were directed toward the lay public. Fourteen

of these were directed particularly toward the mobile population and the remaining 14 addressed the needs of the general public. Although the normative model begins with the general public, for the purposes of this study major emphasis was directed toward the mobile segment of society. Once a decision to address mobility is made, the normative model speaks to two groups: those preparing to move and those who have recently moved. The normative model then followed the problem solving process and looked at when the problem of need for a new physician is dealt with, the type of physician chosen, how names of potential candidates are chosen. Personal and impersonal sources of information were used in making physician selection and selected specific strategies such as the hospital, local medical society, and other initial sources of information were discussed.

CHAPTER IV

HYPOTHESES

This study examines the similarities and differences between how health care experts say consumers should select a primary care physician and the actual selection behaviors demonstrated by a sample of health care consumers. In order to determine if consumers behave in accordance with the prescribed guidelines, a normative model was constructed to represent how experts believe consumers should select a primary care physician. This model was then compared to the actual (or "positive") behavior reported by the consumers in this study.

The research hypotheses tested in this study fall into two general categories. The first category covers five fundamental premises. The second category of hypotheses deal with the behavioral process prescribed by the model. Obviously, empirical verification of these hypotheses is crucial to establishing the validity of the model.

In the sections which follow each category will be considered and the specific research questions and hypotheses selected for testing will be described.

FUNDAMENTAL PREMISES OF THE MODEL

The fundamental premises of the model are the basic assumptions about consumer's behavior upon which the model is based. These premises specify who should have a primary care physician; the reasons for choosing or changing a physician; when to search for a physician; which types of physicians to select; and how to effectively utilize a primary care physician.

Premise: Everyone Should Have a Primary Care Physician

The normative model says everyone should have a primary care physician in order to maintain continuity of care over time. The results of previous studies indicate that while everyone will not have a primary care physician, it is plausible to assume that most people in the study population will have a primary care physician. Thus, the first research question and set of hypotheses follow.

Research Question 1. What proportion of the study population has a primary care physician?

H1.1 A majority of the respondents will have a primary care physician.

H1.2 There is no significant difference between the proportion of the study population claiming to have a primary care physician and the proportion reported for the general population.

Several national studies conducted between 1956 and 1978 found that a majority, varying between 78 and 90 percent, of the population has a primary care physician. Similar results have also been found by researchers studying specific communities. Consequently, the study population can be divided into two segments:

(1) those who have a primary care physician, and

(2) those who have no primary care physician.

A 1955 survey by the American Medical Association[1] of 4,000 people found that 82 percent of Americans had a family doctor, with an even higher percent (90) among residents in rural areas. In 1961, a Good Housekeeping magazine survey of 1,744 women across the United States found that 90 percent had a family doctor.[2] Likewise, in 1975-76, the Robert Wood Johnson Foundation surveying 7,787 Americans who were statistically representative of the

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[1]"Like Your Doctor?," Newsweek, 47(February 13, 1956): 58.

[2]Richard Carter, "What Women Really Think About Their Doctors," Good Housekeeping, 153(August 1961):60-61, 149-153.

U.S. population found that 76 percent had seen a doctor during the study year and more than 78 percent claimed to have a physician they saw regularly.[1] In another study, Flexner and Berkowitz surveyed 1,465 households in a metropolitan area and found that 1,213 (83.9 percent) had a personal physician.[2]

Research Question 2. What are the differences between the "have a primary care physician" and the "have no primary care physician" segments?

H2 There is a significant difference between the demographic profiles of the "have a primary care physician" and "have no primary care physician" segments of the study population.

Flexner and Berkowitz compared the demographic profiles of consumers reporting not to have a personal physician will the profiles of those consumers reporting having a personal physician. They found significantly different profiles for the two groups. In general, the "have no physician" consumers tended to be younger, single, with

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[1]"America's Health Care System: A Comprehensive Portrait," Special Report, Robert Wood Johnson Foundation, 1978.

[2]William A. Flexner and Eric N. Berkowitz, "In Search of New Hospital Markets: An Analysis of the 'Have No Physician' Segment," in 1979 Educators' Conference Proceedings, eds. Neil Beckwith et al., (Chicago: American Marketing Association, 1979), pp. 609-614.

many of them being males. They were more likely to rent rather than own their home, to have their medical expenses paid primarily through a prepaid health plan or a combination of medicaid, self-pay and other means, and be to more highly educated than the "have a physician" group. The investigators found that minority members of the sample were less likely to have a physician.

Since the Flexner and Berkowitz study documented a different consumer profile for the "have a physician" versus the "have no physician" groups there was reason to believe that the present study would reflect similar characteristics.

Whereas the first fundamental premise held that everyone should have a primary care physician, the second fundamental premise considers situational factors that necessitate the need to either select or change physicians.

Premise: Changing Circumstances in the Lives of Consumers May Create a Need to Either Select or Change Primary Care Physicians

Since life is dynamic, situations often arise that create the need to select a primary care physician for the first time, re-establish a relationship with a primary care physician, or to change primary care physicians. More

specifically, the most common types of situations that create this need are:

1. Dissatisfaction with having no source of care;
2. Dissatisfaction with the alternative sources of care to a personal, primary physician;
3. Dissatisfaction with current physician;
4. The relationship with the current physician is terminated through the doctor moving, retiring, or dying; and
5. The consumer moving to a new community.

Research Question 3. What proportion of the "have a primary care physician" segment previously had another physician?

H3 The majority of the "have a primary care physician" segment previously had another physician.

Research Question 4. What circumstances in the lives of consumers create a need to either select a primary care physician or change primary care physicians?

H4 A change in residence is the major influencing factor in the decision to either select a primary care physician or change primary physicians.

Research question three addressed whether people with a primary care physician had previously used this type of service or whether this was their first selection of a

regular physician. In the AMA study previously cited, two-thirds of the respondents had previously used the services of another physician. Thus, people who have a primary care physician tend to re-establish this type of relationship when they move. The major reasons for changing physicians were that the patient or the physician moved, or the physician died. Only five percent reported losing confidence in their physician, while a mere two percent selected what they considered a better doctor.[1] Cahal as reported in Kasteler et al.[2] found that 30 percent of the respondents in 1960 had changed doctors in the past five years. The main reasons cited for the change included relocation of the patient, retirement or death of the physician, or the patient was referred to another physician. Only eight percent claimed they had changed physicians due to dissatisfaction.

As consumers become more active in searching for and changing physicians, the timing of this behavior will become a major issue. The third fundamental premise considers timing.

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[1]"Like Your Doctor?," p. 58.

[2]Josephine Kasteler, Robert L. Kane, Donna M. Olsen, and Constance Thetford, "Issues Underlying Prevalence of 'Doctor-Shopping' Behavior," Journal of Health and Social Behavior, 17(December 1976), p. 328.

Premise: The Search For and Selection of a Primary Care Physician Should Be Conducted Before a Physician's Services are Needed, While the Consumer is Healthy and Has the Time

The timing related to physician search was discussed in detail in Chapter III. As noted there, 13 of the articles reviewed in constructing the normative model explicitly mentioned that consumers should select a physician before the actual need for health care services are required, the remaining 15 articles implied that prior to need was the most appropriate time to search for and select a new primary care physician. To test this premise the following research questions and related hypotheses were addressed.

Research Question 5. Do consumers search for a primary care physician prior to a need for a physician's services?

H5.1 There is a significant difference in the proportion of consumers who search for a primary care physician prior to a need for a physician's services and the proportion of consumers who search at the time a physician is needed.

H5.2 There is no significant difference in the proportion of consumers who previously had a physician and began searching for a new primary care physician prior to a need for a physician's services and the proportion of consumers

> who previously did not have a physician but began searching for a primary care physician prior to a need for a physician's services.

In contrast to the premise posited above, Bell found that less than one-half of the families selected a physician before they actually needed one.[1] Bell also found that they tend to select a physician fairly soon after relocating. General practitioners were selected on the average 7.3 weeks after the move, specialists were selected in 6.9 weeks, and dentists were selected 9.2 weeks after the move. Less than 50 percent of the population studied selected a provider before they actually needed medical services. In the case of the first hypothesis the focus is on a general test of the premise, whereas the second hypothesis is attempting to determine if previously having a physician affects the timing of the search and selection process.

Up to this point the term "primary care physician" has been used without any attempt to specify its meaning. The fourth fundamental premise identifies these physicians.

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[1]James E. Bell, Jr., Selection of New Suppliers by the Mobile Family, (East Lansing, Michigan: MSU Business Studies, 1969), p. 80.

Premise: Physicians Best Qualified To Provide Primary Care Include General and Family Practitioners, Internists, Osteopathic Physicians, and Pediatricians

The discussion regarding the types of physicians best qualified to provide primary care was presented in detail in Chapter III. Specifically, 26 of the 28 articles reviewed in creating the normative model mentioned one or more types of physicians qualified to provide primary care. Of these articles, nine mentioned one best type of primary care provider, five mentioned two types, seven mentioned three types, four mentioned four preferred types of primary care providers, and one article discussed five types. Specific recommendations found in the 26 articles and preference for each type of provider are shown in Table 4.1. To further examine choices of primary care physicians the following research question and related hypotheses were raised.

Table 4.1

Types of Physicians Recommended for Primary Care

Type Physician	Number of Mentions
General Practitioner	20
Internist	16
Family Practitioner	14

(Continued)

Table 4.1 (Continued)

Type Physician	Number of Mentions
Pediatrician for Children	8
Osteopaths in General Practice	2

Research Question 6. What types of physicians do consumers choose to provide their primary care?

H6.1 There is no significant difference in the types of physicians selected for primary care by consumers and the types of physicians defined as primary care physicians by health professionals.

H6.2 For single adult consumers, there is no significant difference in the proportion who choose general or family practitioners and the proportion who choose internists as their primary care physicians.

H6.3 For families with no children living at home, there is no significant difference in the proportion who choose general or family practitioners and the proportion who choose internists as their primary care physician.

H6.4 For families with children living at home, there is no significant difference in the proportion who choose general or family practitioners and the proportion who choose internists as the primary care physician for the entire family.

H6.5 For families with children living at home there is a significant difference in the proportion who choose a pediatrician for the children and a general or family practitioner or internist for the adults and the proportion who choose a general or family practitioner or internist for the entire family.

The preceding premise addressed the types of physicians best suited for providing primary care. The final fundamental premise deals with how consumers should utilize their primary care physicians.

Premise: Consumers Should Use Their Primary Care Physician As A Guide in Determining the Need for and the Selection of Other Health Care Providers

The belief that consumers should use their primary care physician as a guide in determining the need for and in choosing other health care providers was documented in 21 of the 28 articles used to construct the normative model. In support of this belief several articles emphasized that it is generally considered an unwise practice to see a specialist before first consulting a generalist who may be able to treat the ailment or, who is best qualified to make an appropriate referral. The normative model specifies that primary care physicians are the starting point for entry into the health care system; the model assumes they will take responsibility for only treating ailments within their range of capability and will refer whenever the need arises.[1] The family physician is

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[1]Jane Brody, "How To Find A Good Doctor," Parents' Magazine, 51 (August 1976):36-37,73; Lois R. Chevalier, "To

considered much more knowledgeable regarding specialists the patient can be referred to than are the actual consumers of specialized health care services.[1] Since primary care physicians can treat between 85 and 90 percent of all health problems, it is usually more economical to start with this general source of care.[2] Also, such centralization of care allows for better coordination of

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Help Your Doctor Help You," The Reader's Digest, 80(March 1962):96-99; Matt Clark, "How Good Is Your Doctor?" Newsweek, 84(December 1974):46-50,53; Victor Cohn, "How To Pick A Doctor," Ladies Home Journal, 83(January 1966):34-35; Albert Deutsch, "How To Pick A Doctor," Woman's Home Companion, 74(November 1947): 38,106,109; William Flanagan, "How To Choose A Doctor" Business Week, 2388(July 1975): 59-60; Mark Lipkin, "The Right Doctor For You," McCall's, 104(January 1977):72,74, 76-79,136; Michael Scott, "How To Choose A Doctor," Better Homes and Gardens, 56(February 1978);83-84; "Some Credentials For The Modern Family Doctor," Consumer Reports, 25(May 1960):268-270; Ellen Switzer, "How To Get The Best Medical Advice For Life," Vogue, 174(August 1974):144-145.

[1]"Get A Doctor. . . Before Illiness Strikes!", Today's Health, 34(June 1956):29; Clive Howard, "The Best Doctor For You," Woman's Home Companion, 77(August 1950): 4,6; "How To Find A Doctor For Yourself," Consumer Reports, 39(September 1974): 681-684; "How To Seek Out A Good Doctor," Changing Times, 30(February 1976):35-37; Alice Lake, "How To Choose A Family Doctor," American Magazine, 158(November 1954):46-48, 101-103; Tom Mahoney, "How To Pick A Doctor," Science Digest, 37(January 1955):25-29; Margaret Markham, "How To Choose Your Doctor," Harper's Bazaar, 110(February 1977):126-127, 157-158; and "Too Many Wrong Ideas About Doctors," U.S. News and World Report, 34(April 1953):43-51.

[2]"How To Pick A Doctor," Changing Times, 8(September 1954):27-31; and "How To Pick A Family Doctor," U.S. News and World Report, 75 (September 1973):41-45.

services.[1]

The specific research question and hypotheses used to test the premise that primary care physicians should be used as the entry point to the health care system are as follows:

Research Question 7. Do consumers select a primary care physician before selecting other types of physicians?

H7 There is a significant difference in the proportion of consumers who select a primary care physician first and the proportion of consumers who select other types of physicians before selecting a primary care physician.

Research Question 8. Do consumers use their physicians as guides in the selection of other physicians?

H8 There is a significant difference in the proportion of consumers who use their physicians to assist in the selection of other physicians and the proportion of consumers who do not use their physicians to assist in the selection of other physicians.

Research question eight represents the final question raised dealing with the fundamental premises of the model. The remainder of this chapter addresses the process, or flow, of the model. In the next section, research questions and hypotheses about each stage of the

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[1]Edward Maxwell, "Frank Talk On How To Choose-Use-Abuse Your Doctor," Today's Health, 44(October 1966):50-55, 81-82,87-90.

model are presented. As described in both Chapter II and Chapter III, the problem solving process was used as the organizing paradigm for the model. Hence, the research questions and hypotheses are ordered to follow the stages of that framework. The purpose of this section is to identify a series of hypotheses that will be used to establish the validity of the normative model.

PROCESS OF THE MODEL

Stage 1: Problem Recognition

The first stage in the model is problem recognition, defined in this study as recognizing the need for a primary care physician. It is assumed that there will be various patterns of problem recognition, some of which will be influenced by mobility. More specifically, new residents tend to differ in the time at which they recognize their need for a primary care physician. Some geographically mobile people recognize this need prior to their actual move while others recognize the need for a primary care physician after they move. New residents can also be categorized according to whether they did or did not have a physician prior to their move as well as when they actually recognized the need for a physician in the new residence. That is, of the new residents who have a physician prior to

their move, some recognize the need for changing physicians prior to the actual move while others who previously had a physician recognize this need only after they relocate. Likewise, people without a physician prior to moving may recognize the need for a physician in the new location either prior to or after the move.

Regarding problem recognition, there are two characteristic groups: One group recognizes the need for a primary care physician before services are actually required, whereas, the other recognizes the need for a physician only when actual need arises. Similarly, new residents can also be categorized according to whether they recognize the need for a primary care physician before or after they move. The following research question and hypothesis specify these two general categories of problem recognition: before need versus at the time of need and before versus after the move.

Research Question 9. Do consumers vary in their patterns of problem recognition?

H9.1 There is a significant difference in the proportion of consumers who recognize the need for a primary care physician before a physician's services are needed regardless of whether or not the consumer previously had a physician or whether the event takes place prior to or after a move and the proportion of consumers who recognize the need for a primary care physician at the time a physician's services are needed regardless of whether or not the consumer previously had a physician or whether the event takes place prior to or after a move.

H9.2 There is no significant difference in the proportion of consumers who recognize the need for a primary care physician prior to moving and before a physician's services are needed regardless of whether or not the consumer previously had a physician and the proportion of consumers who recognize the need for a primary care physician after moving but before a physician's services are needed regardless of whether or not the consumer previously had a physician.

Stage 2: Situation Analysis

Stage two of the model deals with the conditions under which the search for a primary care physician is begun by consumers. The normative model advocates selecting a physician while people are still healthy and perceive no urgency in making a choice. Of those consumers who search for and select a primary care physician while they are still healthy, three categories emerge. First, consumers who had a physician prior to their move actually search for a new physician before they relocate. A second group of consumers who also had a physician prior to moving wait until they relocate to search for a new physician. The third category of consumers anticipated by the model did not have a physician at their previous location and they begin the search soon after moving. A key question to be raised deals with whether consumers who had physician before moving tend to begin the search prior to or following the move. Similarly, do consumers who had no regular physician prior to their move begin the search

process before or after the actual move? The following research questions and hypotheses address these queries:

Research Question 10. Do consumers who previously had a physician begin searching prior to or after moving?

H10 There is no significant difference in the proportion of consumers who previously had a physician and began searching for a new primary care physician prior to moving and the proportion of consumers who previously had a physician but waits to begin the search for a new primary care physician until after moving.

Research Question 11. Do consumers who previously did not have a physician begin searching prior to or after moving?

H11 There is a significant difference in the proportion of consumers who previously did not have a physician but started searching for a primary care physician prior to moving and the proportion of consumers who previously did not have a physician but waited to begin the search for a primary care physician until after moving.

Stage 3: Search Phase One: Obtaining Names

During stage three of the process modeled for this study, the actual search for the names of potential primary care physicians begins. The starting point of the search process, according to the model, begins with a collection of names of candidates who are either general (family) practitioners, internists, or pediatricians. Consumers

will vary in the number of names of potential physician candidates secured. Some will be content to secure only two or three names while other consumers will prefer a more extensive list from which to choose a physician.

In the search phase the model predicts consumers will rely primarily on personal and impersonal health care professional sources of information for identifying potential physician candidates.

Essentially, the use of these sources falls into three patterns. Consumers can rely on personal health care information as primary sources of names. This type of information is sought from health care providers whom consumers know personally. Examples of these sources would include physicians and other health care providers known personally by the consumer. Alternatively, consumers can rely on secondary sources for physician names such as hospitals, medical schools or the medical society. Finally, consumers who fall in the third pattern would use tertiary sources of names such as personal, nonprofessional information sources. Examples would include information secured from friends, family or neighbors who were not health care professionals.

The following research questions and hypotheses specify whether consumers choose one versus more than one name of a physician candidate; whether professional health care sources are utilized versus reliance on non-health

care sources; whether of those who had a physician prior to their move use a physician source and finally other health care sources are used as frequently as are physicians.

Research Question 12. Do consumers identify more than one physician candidate?

H12 There is a significant difference in the proportion of consumers who obtain the names of more than one physician candidate and the proportion of consumers who obtain the name of only one physician candidate.

Research Question 13. Do consumers rely primarily on personal and impersonal health care professional sources of information for identifying potential physician candidates?

H13 There is a significant difference in the proportion of consumers who use personal and impersonal health care professional sources of information for identifying potential physician candidates and the proportion of consumers who use personal and impersonal nonprofessional information sources for identifying potential physician candidates.

Research Question 14. What information sources do consumers use to identify physician candidates?

H14.1 There is a significant difference in the proportion of consumers who previously had a physician and use physicians as a source of information for obtaining the names of new physician candidates and the proportion of consumers who previously had a physician but did not use physicians as a source of information for obtaining the names of new physician candidates.

H14.2 For consumers who use personal health care professional sources other than physicians, there is no significant difference in the proportions of consumers who use different types of sources for obtaining the names of physician candidates.

Stage 4: Search Phase Two: Obtaining Credentials

During stage four, which entails the second phase of the search process, consumers will seek information related to the credentials of the physician candidates. It is anticipated that consumers vary their efforts in collecting information depending on the source from which their list of physician candidates was derived. That is, consumers who gain information from personal health care professional sources of information may spend less time checking credentials than those who secure the names of physician candidates from impersonal health care professional sources.

Additionally, consumers will tend to collect information according to variety and quantity of information sought as well as according to when they seek the information. That is, do consumers collect the same variety or type of information about physicians as were specified in the model? Also, do consumers who collect information prior to contacting the physician collect the same type and quantity of information as people who conduct their search

after they have contacted the physician. The following research questions and hypotheses address these issues:

Research Question 15. Do consumers seek information about physician candidate's education, certification, and appointments?

H15.1 There is a significant difference in the proportion of consumers who collect education, certification, and appointments information for each physician candidate and the proportion of consumers who do not collect any information about the physician candidate's education, certification, and appointments.

H15.2 For consumers who obtain the names of physician candidates from either a hospital, medical school, or medical society, there is no significant difference in the proportion who collect education, certification, and appointments information for each physician candidate and the proportion of consumers who do not collect any information about the physician candidate's education, certification, and appointments.

Research Question 16. What types of education, certification, and appointments information do consumers seek about physician candidates?

H16 There is no significant difference in the types of education, certification, and appointments information sought by consumers and the types of education, certification, and appointments information identified by health professionals.

Research Question 17. How much information do consumers collect about physician candidates' education, certification, and appointments.

H17 There is no significant difference in the amount of education, certification, and appointments information collected by consumers and the amount of education, certification, and appointments information suggested by health professionals.

Research Question 18. When do consumers collect education, certification, and appointments information about physician candidates?

H18 There is a significant difference in the proportion of consumers who collect education, certification, and appointments information prior to contacting physician candidates and the proportion of consumers who collect this information after contacting physician candidates.

Stage 5: Evaluation Phase

During stage five, the physician candidates should be compared on the basis of the information generated during the search. Consumers will differ in the extent to which information is used to compare physicians. In addition, of those consumers who do collect evaluation information some, will use the information to rank order physicians while others will not become quite so involved in this process. Research questions 19 and 20 and the accompanying hypotheses reflect these consumer differences in the use of physician evaluation.

Research Question 19. Do consumers evaluate physician candidates on the basis of education, certification, and appointments information?

H19 There is a significant difference in the proportion of consumers who compare physicians candidates on the basis of education, certification, and appointments information and the proportion of consumers who do not use education, certification, and appointments information to evaluate physician candidates.

Research Question 20. Do consumers who collect information about physician candidates' education, certification, and appointments compare the physician candidates on the basis of this information.

H20 For consumers who collect education, certification, and appointments information about physician candidates, there is a significant difference in the proportion of consumers who use this information to compare physician candidates and the proportion of consumers who do not compare physician candidates on the basis of this information.

Stage 6: Search Phase Three: Test Shopping

After contacting and eliminating physician candidates not accepting new patients, consumers should test shop physician candidates, according to the model. Research question 21 and the accompanying hypotheses address whether consumers use their first physician visit for this purpose.

Research Question 21. Do consumers test shop physician candidate(s) by using their first visit for the purpose of collecting additional information and/or getting a physical examination?

H21 There is a significant difference in the proportion of consumers who use their first visit for the purpose of collecting additional information and/or getting a physical examination and the proportion of consumers who use their first visit for other medically related reasons.

Stage 7: Selection

During this phase, a primary care physician is chosen. Each of the research questions and related hypotheses discussed thus far in this section has focused on individual stages in the normative model. The next research question and hypothesis focuses on the entire process and is based on the premise that the search for and selection of a primary care physician should be a rational, analytical process.

Research Question 22. Do consumers follow a primary care physician search and selection strategy that consists of:

1. Obtaining a list of physician candidates names;
2. Collecting education, certification, and appointment information for each name;

3. Compare physician candidates on the basis of the education, certification, and appointment information;
4. Contacting and eliminating physician candidates not accepting new patients;
5. Test shopping; and
6. Selecting a primary care physician.

H22 There is a significant difference in the proportion of consumers who follow the extensive primary care physician search and selection strategy that consists of (1) obtaining a list of physician candidates names; (2) collecting education, certification, and appointment information for each name; (3) comparing physician candidates on the basis of the education, certification, and appointments information; (4) contacting and eliminating physician candidates not accepting new patients; (5) test shopping; and (6) selecting a primary care physician and the proportion of consumers who follow a less rigorous approach.

The final stage of the process deals with the issue of post-selection evaluation, which includes assessing the primary care physician and the selection process as well. Although these issues are not specifically addressed in the model they do provide for a feedback network similar to those identified and discussed in both Chapter II and Chapter III.

Stage 8: Post-Selection Evaluation

The purpose of stage eight, post-selection evaluation, is to assess both the primary care physician and the selection process. Assessment is made regarding the consumer's satisfaction with the physician chosen, the information sources used as well as with the specific types of information. Research question 23 and the accompanying two hypotheses address consumer satisfaction with physician selection.

Research Question 23. How satisfied are consumers with their present primary care physician?

- H23.1 The majority of consumers are satisfied with their primary care physician.
- H23.2 There is no significant difference between the proportion of the study population claiming to be satisfied with their primary care physician and the proportion reported for the general population.

As previously discussed, three national and one local study looked at consumer satisfaction with physician selection. In the AMA study of 1955-56 in which 4,000 respondents were queried, 99 percent claimed to be satisfied.[1] Similarly, in 1961 Good Housekeeping magazine surveyed 1,744 readers and found that 78 percent were very

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[1]"Like Your Doctor?," p. 58.

satisfied with their physician and 19 percent were fairly satisfied.[1] Consistent with the two earlier studies, in 1978 the Robert Wood Johnson Foundation surveyed 7,787 people and found 80 percent of consumers with a physician were satisfied with the choice.[2] Bell,[3] in a regional study completed in 1969, found that 90 percent of those with physicians were satisfied.

The following two research questions and hypotheses address consumer satisfaction with the sources of information used to assist with the selection process.

Research Question 24. How satisfied are consumers with the information sources used to identify physician candidates?

H24.1 There is a significant difference in the proportion of consumers who found personal and impersonal health care professional sources of information to be helpful in indentifying physician candidates and the proportion of consumers who found personal and impersonal nonprofessional sources of information to be helpful in identifying physician candidates.

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[1]Carter, "What Women Really Think About Their Doctors," pp. 60-61, 149-153.

[2]"America's Health Care System: A Comprehensive Portrait."

[3]James E. Bell, Jr., "Mobiles--A Neglected Market Segment," Journal of Marketing, 33(April 1969):37-44.

Research Question 25. How satisfied are consumers with the types of information used in the selection of a primary care physician?

H25.1 There is a significant difference in the proportion of consumers who found education, certification and appointments information to be important in the selection of a primary care physician and the proportion of consumers who found education, certification, and appointments information to be unimportant in the selection of a primary care physician.

SUMMARY

This chapter has discussed the research questions and hypotheses for the study. Hypotheses were divided into two general categories: Fundamental premises of the model and the process of the model. The fundamental premises-category was further divided into five areas dealing with questions of who should have a primary care physician, what circumstances create a need to select or change physicians, when and what type of physician should be selected, and lastly, how should the physician be utilized.

The second category of hypotheses dealt with the process of the model and consisted of eight stages. Problem recognition comprised the first stage followed by situation analysis, two phases of search, evaluation, search phase three, selection, and finally post-selection.

The model begins with recognition of need and ends with an evaluation of consumer satisfaction with the process utilized.

CHAPTER V

METHODOLOGY

A thirty-eight item questionnaire was developed based on the normative model to collect information from new residents about the process they followed and the information they used in selecting a primary care physician. This questionnaire was sent to new residents whose names appeared on a list provided by a local utility company. New residents to Fort Worth, Texas during the first nine months of 1976 were divided into four groups, according to information included with the list of names. The four groups were: (1) homeowners who moved into the area from out of state; (2) renters who moved into the area from out of state; (3) homeowners who moved from within the state; and (4) renters who moved from within the state. These groups were proportionally sampled to provide the subjects of the study.

Data collected were analyzed by calculating summary statistics such as measures of central tendency including the arithmetic mean and standard deviation for interval

data, the median for ordinal data, and the mode as well as frequency counts for nominal data. In addition, measures of difference, such as the Chi-Square and tests for differences between two proportions were used.

This chapter contains a discussion of the methods used in conducting the study. The discussion includes research setting, sample, instrumentation, protection of human rights, data collection procedures and methods of data analysis. Because of the complexity of the study, the section on data collection procedure also includes the pre-survey procedures.

RESEARCH SETTING

The study was conducted during the period 1976-1977 in Fort Worth, Texas. As the fourth largest population center in Texas, Fort Worth is known as a transportation, distribution and manufacturing center for aerospace and mobile-modular homes and headquarters for wholesale, retail and oil firms. During this period of time the local economy was healthy and Fort Worth was experiencing a population growth. Several factors account for this phenomenon, such as a fertility rate that began increasing in the late 1960s, a death rate that was not only declining but that was also lower than the national average, and a rapidly growing in-migration of young adults.

SAMPLE

In order to obtain an accurate sample of new residents entering the Fort Worth area, the researcher sought the support of one of the utility companies. This source was chosen because, with few exceptions, all new residents would subscribe to this service and because of the nature of the service provided it could be anticipated that the list would be reasonably accurate. In the Fall of 1976 approval was received from the utility company to utilize their lists of new residents. The lists provided by the utility company were compiled on a weekly basis, hence, a total of 36 lists covering a nine month period from January, 1976 to September, 1976 were made available to the researcher.

To verify the accuracy of these lists, another institution who requested to remain anonymous also provided the investigator with weekly lists of new residents. By combining the two lists of new residents, a total population of 2,857 was obtained for the 36 week period from December 29, 1975 through September 5, 1976.

This research effort was designed to be accomplished in two phases. In the first phase an exploratory study was undertaken with the objective of developing a phenomenological model. The purpose of this type of model is to describe the problem as it appears to the consumer not the

investigator. A consumer buying protocol can be used in the development of a phenomenological model. By sampling a number of people who recently dealt with the process under investigation, the researcher can map the consumer's buying process. Such a model is developed by asking buyers to recall the sequence of thoughts and feelings that went through their minds at the time they first thought about the problem, how they gathered information, what problems were encountered and the methods used to resolve them, how they made their final choice, and how they felt afterward.

From the total population of new residents, 24 were sampled to participate in the pilot or first phase of the study. An additional 100 residents were randomly selected for a second pre-survey procedure that was initiated in April, 1977. The purpose of this second procedure was to test the response rate to a health care questionnaire and to assess the adequacy of the survey technique to be used in the study. Both pre-survey procedures will be fully explained in a later section entitled data collection procedure.

Once the pre-survey procedures were completed the population consisted of 2,733 new residents. From this adjusted population a sample of 2,000 new residents was randomly selected in a systematic manner. The sample was selected randomly but in direct proportion to the four sub-groups of the population: new residents from outside

the state who (1) own or (2) rent their homes and new residents from within the state who (3) own or (4) rent their homes.

PROTECTION OF HUMAN RIGHTS

During the period when data were collected the investigator was a full-time faculty member at Texas Christian University. Nearly simultaneous with the onset of this study the University developed a systematic mechanism for the protection of human subjects. The University had previously adhered to a policy on "Research Involving Human Subjects" which had endorsed voluntary participation as a guiding precept, but no systematic procedure was utilized to approve or disapprove of faculty research involving human subjects.

However, in November, 1976, the Committee on Safeguards in Human Research devised a procedure whereby all faculty proposals would be reviewed to determine whether subjects were "at risk." The proposal is provided in Appendix B. Approval was received on December 9, 1976 to conduct the study as outlined in the proposal.

INSTRUMENTATION

As previously discussed, the purpose of this study was to examine the relationship between how consumers actually selected a primary care physician as compared to how the normative model, derived from a thorough review of the literature, prescribed this process. In order to carry out this research goal, the investigator developed a questionnaire based on the normative model to elicit information about each stage of the physician selection process. The research questionnaire can be found in Appendix A.

In addition to the questions generated by the normative model, the investigator developed further questions based on the information derived from the protocol interviews. A third set of questions served to elicit information about the study sample that would be comparable to questions asked in earlier related studies including demographics and psychographics.

The instrument entitled "Health Care Consumer Survey" shown in Appendix A contains 38 items and requires approximately 20 minutes to complete. As can be seen on the questionnaire if respondents answered "no" to either questions one or two they were instructed to proceed immediately to question nineteen. Questions one and two asked respondents if they had a family physician and if the

family physician was selected in the last three years, respectively. If respondents did not have a physician then they were unable to answer questions related to when and how they selected a health care provider or the title and specialty area of the physician. Question nineteen asked respondents to select characteristics of physicians that would be important to them if they were to select a family physician in the future. Questions 20 and 21 asked who in the family tended to use a physician's services and how often. Questions 22 to 25 dealt with the respondent's moving history, housing arrangements, and familiarity with Fort Worth. The final series of questions requested demographic information about the respondents and their family's.

DATA COLLECTION PROCEDURE

Data for this study were collected from the sample population through personal and telephone interviews as well as by mail-out questionnaires. Two major tasks were completed prior to initiation of actual data collection. First, information was obtained from a small sample (n = 24) of new residents to assist in the development of the study questionnaire. Secondly, the investigator sampled another group of new residents (n = 100) in the study population to determine not only what rate of response

could be expected from a health care questionnaire but also which survey techniques elicited the best response relative to the inside address on the cover letter, the address and type of postage on the outside envelope, and type of postage on the return envelope. The procedures utilized prior to the actual data collection are more fully described below as pre-survey procedures one and two.

Pre-Survey Procedure One

Pre-survey procedure one consisted of the use of a research developed protocol consisting of five introductory comments, six questions relative to physician selection following a move, and a closing statement of appreciation for responding to the questions. The purpose of this procedure was to further develop the research questionnaire being developed from a review of the literature on physician selection by new residents.

Two interviewing techniques were employed in using the protocol. Of the 24 subjects participating in this procedure one-half were randomly assigned to a telephone group and the remaining one-half to a personal interview group. The same questions were asked by the investigator to participants in both groups. The specific questions are shown in Appendix C. The responses to this pre-survey procedure

provided valuable information for generation of the study questionnaire.

For example, based on the interviews, the researcher gained some understanding of the type of referral sources used by new residents (i.e., previous physicians, nurses, realtors, friends, and telephone directories). These interviews also provided the researcher with some idea about the characteristics selected consumers desire in a physician, such as good personality, desirable location of office, competence, participation in a group practice, availability, and willingness both to listen and explain medical care in understandable terms.

In most of the 24 interviews the female adult in the family made the physician selection with limited or no imput from the male adult in the household. Most new residents in pre-survey procedure one selected a family physician after they moved to Fort Worth with several waiting until someone in the family actually needed medical care. Interestingly, the majority of participants in the personal and telephone interviews were satisfied with the decision they had made.

Pre-Survey Procedure Two

A mail-out questionnaire was selected as the data collection method since it provided the advantage of

allowing the researcher to gather information from a large number of people over a relatively short period of time. In order to accomplish the objectives of the study, it was determined that this particular research design required approximately 500 valid responses. In view of the time limits associated with the study and the need to contain costs as well as provide anonymity for the respondents, a mail survey was identified as the most suitable technique.

In order to determine how many new residents to survey, an estimate of the response rate was needed. Therefore, in the second pre-survey procedure 100 questionnaires, on a related health care subject, were mailed to randomly selected subjects from the study population. Appendix A contains a copy of the questionnaire used in pre-survey procedure two. The pre-survey sample was selected in direct proportion to the total population studied with the lists divided into four groups as previously discussed. For the purposes of this step the questionnaires were mailed as follows:

	Group	Number Mailed
One:	New residents moved within Texas/homeowners	20
Two:	New residents moved from outside Texas/homeowners	14
Three:	New residents moved within Texas/renters	33
Four:	New residents moved from outside Texas/renters	33

The results of the pre-test survey yielded 24 incorrect addresses, 17 responses, and 59 non-responses. Based on this response rate, the investigator determined that a second mailing was indicated. Since questionnaires were not coded to differentiate respondents from nonrespondents an entire second mailing was required, including the 17 who had previously returned the original questionnaire. The number of incorrect addresses is somewhat misleading in explaining the second mailing of the pre-test questionnaires. At the time of the second mailing 22 questionnaires had been returned due to an incorrect address. However, soon after the second mailing two additional questionnaires were returned due to incorrect addresses.

Hence, 78 questionnaires were sent in the second mailing. For this mailing two additional questions were addressed. Is the response rate better with a stamped reply envelope than with a business reply envelope? Secondly, is there a difference in the number of responses when the cover letter includes a personalized inside address versus a cover letter with no personalized inside address?

The first mailing of the pre-test included 100 questionnaires accompanied by a personalized cover letter and a business reply return envelope. In contrast, the second mailing consisted of 39 questionnaires accompanied by a stamped reply envelope and a cover letter addressed to

"Dear Reader." The remaining 39 questionnaires were mailed with a stamped reply envelope and a personalized cover letter. In order to identify responses to the various treatments, the investigator had his name typed in all capital letters on the stamped reply envelope sent to the group that received the impersonal cover letter. The group receiving the personalized cover letter were sent a reply envelope with the investigators name typed in upper and lower case letters.

Of the 78 questionnaires sent in the second mailing of the pre-test, 18 were returned, 2 had incorrect addresses, and 58 did not respond. Of the 18 responses, 8 came from subjects who received cover letters having no inside address. The total response rate for the two mailings of the pre-test was 47.23 percent. Sample cover letters used in the pre-test can be found in Appendix D. It should be mentioned that when the initial lists of names were compiled they were entered into a computer so that all cover letters and envelopes could be individually printed.

Survey

Based on the results of the pre-survey procedures it was determined that the most effective way to mail the questionnaires was to send cover letters that were

personalized in the first wave and follow-up with less personalized cover letters. It was also determined that a stamped reply envelope was preferable to business reply envelopes. Appendix E contains the sample cover letter and follow-up letter used in the study.

Consequently, two thousand questionnaires were mailed with the sample randomly selected in direct proportion to the four sub-groups previously described. That is, selection within each cell was proportional to the number of new residents. Table 5:1 shows the exact proportion of subjects in each category.

In addition, based on the results of the pre-test, it was decided to have two entire mailings of the questionnaire. Of course, the second mailing excluded mailings of the questionnaire. Of course, the second mailing excluded those names that had previously been associated with incorrect addresses. There was a two week interval between the original and follow-up mailings.

A total of 2,000 questionnaires were mailed to new residents who re-located to Fort Worth, Texas between January and September, 1976. Of these, 428 were returned, due to incorrect addresses, before the follow-up letter and questionnaire was mailed. This yielded a net pre-follow-up sample of 1,572 new residents. Of these, a response was received from 320, yielding a response rate of 20.36 percent of the first mailing.

	Owns Home	Rents Home	Total
Moved From Outside of Texas	391 (13.69%) (Group One)	947 (33.14%) (Group Two)	1,338 (46.83%)
Moved From Within Texas	567 (19.85%) (Group Three)	952 (33.32%) (Group Four)	1,519 (53.17%)
Total	958 (33.54%)	1,899 (66.46%)	2,857

Table 5:1 Number of subjects in each category.

Two weeks after the original mailing, a follow-up mailing was sent to all 1,572 new residents for whom the researcher's address list appeared to be valid. Following the second mailing, 87 additional incorrect addresses were identified, yielding a sample of 1,485 correct addresses from the original total of 2,000. The response to the second mailing was 261 questionnaires reflecting a rate of 17.58 percent. Further, after the follow-up mailing, 73 additional responses to the first mailing were received, yielding a total response rate to the first mailing of 26.46 percent. When the response rates to both mailings were combined, an overall response rate of 44.37 was achieved. Table 5.2 shows the number of responses in each study group.

DATA ANALYSIS PROCEDURE

The final phase of the methodology component of this study includes the analysis of the data collected through the mailing of the "Health Care Consumer Survey." However, prior to the actual data analysis, the data was edited, coded, and entered on IBM cards for further processing. Even with coding of responses, the data collected from each respondent utilized four IBM cards for each questionnaire. Because of the large sample size and the number of questions asked each participant, prewritten statistical packages as developed by Statistical Package for the Social Sciences (SPSS) were utilized.

	Owns Home	Rents Home	Total
Moved From Outside of Texas	137 (20.95%) (Group One)	211 (32.26%) (Group Two)	348 (53.21%)
Moved From Within Texas	135 (20.64%) (Group Three)	171 (26.15%) (Group Four)	306 (46.79%)
Total	272 (41.59%)	383 (50.41%)	654

Table 5:2 Number of respondents in each category.

Data were analyzed by calculating summary statistics including the arithmetic mean and standard deviation for interval data, the median for ordinal data, the mode and frequencies for nominal data. Primarily, the data were treated by using the chi-square tests of differences (X^2 test). The results of testing the study hypotheses are presented in Chapter XI along with a restatement of each of the hypotheses tested in this study. All hypotheses were tested at the .05 level of significance. Additionally, where more stringent levels of analysis were required, they are reported. Also, in the data analysis, alpha was adjusted in any situation where a series of tests were run on the same sample or group of data. The reason for this adjustment is that it is expected on the basis of chance alone that some of the statistical tests would indicate significance.

In addition to the hypothesis testing procedures, the responding sample was analyzed for response bias. More specifically, the demographic profile of the responding sample was compared to the demographic profile of the original sample using the chi-square test of differences. The results of these tests showed no significant differences between the demographic profiles of the two samples. Consequently, nonresponse bias does not appear to be a major concern with regard to the interpretation of the data analyzed.

Finally, the responding sample was analyzed for response bias by comparing the first-third of the respondents with the second and third-thirds, respectively. The results of this set of chi-square tests showed no significant differences in the demographic profiles of the three sub-sets of respondents. Therefore, bias within the responding sample does not appear to be an issue of concern when interpreting the data collected.

SUMMARY

This chapter has described the methodology used in a descriptive study to determine physician selection practices of new residents. As discussed, a 38 item questionnaire was developed based on the normative model of physician selection patterns of new residents to gather information about the actual process used in selecting a primary care physician. Data were gathered on new residents entering a metropolitan area in the Southwest over a nine month period. The sample was obtained from a list provided by one of the utility companies. Since most residents were obliged to utilize the services of this company the list was deemed to be reasonably comprehensive. However, a second agency having access to the names and addresses of

new residents, although wishing to remain anonymous, agreed to verify the accuracy of the original list.

An initial pilot study was completed on 24 new residents, followed by a second pilot study comprised of 100 residents. Following the two pilot studies, a survey population of 2,733 new residents remained from which a sample of 2,000 was selected in a systemic random fashion consistent with the four sub-groups of the population.

Protection of human rights, it should be noted, was demonstrated to the University Committee on Safeguards in Human Research, and approval was received to carry out the study as designed. As described in this chapter two pre-survey procedures were completed. The first used an interviewing approach while the second was a mail survey. Following both pre-survey procedures the study questionnaire was mailed to 2,000 subjects on two occasions to yield an adequate number of completed questionnaires.

CHAPTER VI

RESULTS OF DATA ANALYSIS

This section of the dissertation presents the results of the analysis of data collected from 654 new residents in Fort Worth, Texas, in 1977. For the purposes of this study 25 research questions were raised and 35 hypotheses were tested to answer these questions. Chapter VII discusses these results in depth and considers both their significance for this study as well as the anticipated usefulness for marketing and health care. As described in Chapter IV, the research hypotheses in this study fall into two general categories. The first group deals with five fundmental premises of the normative model. The second category of hypotheses deal with the process of the model.

TESTS OF THE FUNDAMENTAL PREMISES OF THE MODEL

This section presents the test results of the hypotheses related to the fundamental premises which dealt

with who should have a primary care physician; the circumstances creating a need to select or change physicians, the actual search process and subsequent utilization of primary care physicians.

Tests of Premise One

A fundamental premise of the normative model is that everyone should have a primary care physician. Between 1956 and 1978 several national and regional studies were completed which indicated that between 78 to 90 percent of the population actually had a primary care physician. Hence, the first research question posed by this study dealt with determining the proportion of the population having a primary care physician, and ascertaining if the findings of the study were comparable to those found in previous studies.

Results Related to Research Question One. A preliminary analysis of the data found that of the 654 survey respondents only 632 indicated whether they had a primary care physician. Of this group, 476 (75.32 percent) acknowledged having a primary care physician, while 156 (24.68 percent) claimed having no physician. Although 476 (75.32 percent) represents a majority and suggests accepting hypothesis 1.1, the chi-square statistic was

computed to determine whether the results were significantly different from those expected by chance. As shown in Table 6.1, the results are statistically significant, thereby supporting the hypothesis.

The second issue posed by this research question was to determine how the proportion of consumers claiming to have a primary care physician found by this study compared to the results reported by five other independent studies, as discussed in Chapter IV. Hypothesis 1.2 was tested by using the chi-square statistic to compare the findings of this study with three national studies conducted by the American Medical Association, Good Housekeeping magazine, and the Robert Wood Johnson Foundation, as well as two regional studies conducted by Bell, and Flexner and Berkowitz. This hypothesis was rejected because the results of the chi-square test, as shown in Table 6.1, indicated a significant difference between the studies.

In an attempt to determine in which studies the differences occurred, seven additional chi-square tests were made. The results of these tests are presented in Table 6.2. As can be seen, significant differences were found in all but two of the tests. More specifically, no significant differences were found between this study and the nationwide Robert Wood Johnson study, nor were there any significant differences between this study and the regional study of geographical mobiles conducted by Bell.

Table 6.1

Research Hypotheses and Statistical Results Related to Fundamental Premise One: Research Question One

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistics	d.f.	Significance Level
H1.1	The majority of the respondents have a primary care physician.	$X^2 = 162.02$	1	$p<.001$
H1.2	There is no significant difference between the proportion of the study population claiming to have a primary care physician and the proportion reported for the general population.	$X^2 = 165.38$	5	$p<.001$

Table 6.2

Statistical Results for Tests Related to Hypothesis 1.2*

Test	Study	N	Have A Physician	Have No Physician
There is no difference between the current study and the three national studies	Current	632	476 (75%)	156 (25%)
	AMA	4000	3280 (82%)	720 (18%)
	Good Housekeeping	1744	1570 (90%)	174 (10%)
	Robert Wood Johnson	7787	6074 (78%)	1713 (22%)
$X^2 = 148.18$ d.f. = 3 $p < .001$**				
There is no difference between the current study and the AMA study.	Current	632	476 (75%)	156 (25%)
	AMA	4000	3280 (82%)	720 (18%)
$X^2 = 15.46$ d.f. = 1 $p < .001$**				
There is no difference between the current study Good Housekeeping study.	Current	632	476 (75%)	156 (25%)
	Good Housekeeping	1744	1570 (90%)	174 (10%)
$X^2 = 29.80$ d.f. = 1 $p < .001$**				

(Continued)

Table 6.2 (Continued)

Test	Study	N	Have A Physician	Have No Physician
There is no difference between the current study and the Robert Wood Johnson study.	Current	632	476 (75%)	156 (25%)
	Robert Wood Johnson	7787	6074 (78%)	1713 (22%)
	X^2 = 2.29 d.f. = 1 .2 > p > .1			
There is no difference between the current study and the two regional studies	Current	632	476 (75%)	156 (25%)
	Bell	147	107 (73%)	40 (27%)
	Flexner & Berkowitz	1446	1213 (84%)	233 (16%)
	X^2 = 27.13 d.f. = 2 p < .001**			
There is no difference between the current study and the Bell study.	Current	632	476 (75%)	156 (25%)
	Bell	147	107 (73%)	40 (27%)
	X^2 = .28146 d.f. = 1 .7 > p > .5			

(Continued)

Table 6.2 (Continued)

There is no difference between the current study and the Flexner & Berkowitz study.	Current	632	476 (75%)	156 (25%)
	Flexner & Berkowitz	1446	1213 (84%)	233 (16%)

X^2 = 20.67 d.f. = 1 p < .001

*For all tests related to H1.2 alpha (α) was adjusted as follows: $\alpha_{adjusted} = 1 - (1 - \alpha)^{1/k}$; where α = original alpha; k = number of related tests; therefore $\alpha_a = 1 - (1 - .05)^{1/8} = .006$

**Significant

Results Related to Research Question Two. The second research question addressed the differences between the respondents who have a primary care physician (the haves) and those without a primary care physician (the have nots). Chi-square tests were completed to determine if differences existed on several demographic variables: marital status, age, sex, number of children, age of both oldest and youngest child, number of adults in the household, income, occupation, home ownership, moving history, familiarity with Fort Worth, region of prior residence, member of household who routinely sees a physician, and number of physician contacts last year.

Comparison of the demographic and socioeconomic characteristics of the "have a physician" and the "have no physician" respondents is presented in Table 6.3. Findings reveal similarities as well as selected differences between these groups on a variety of dimensions, and a unique profile emerges for each group.

Both groups were found to be similar in terms of family structure. More specifically, a large majority of the respondents from both groups are married, with families consisting of two adults and either one or two children. In the majority of cases the oldest child is over six years and the youngest child is under six years.

Although there were some similarities in the family structures of these two groups, they differ significantly

Table 6.3

Research Hypothesis and Statistical Results Related to
Fundamental Premise One: Research Question Two

Hypothesis Number	Research Hypothesis Tested						
H.2	There is a significant difference between the demographic profiles of the "have a primary care physician" and "have no primary care physician" segments of the study population.						
Demographic Variable	Have A Physician N	%	Have No Physician N	%	Chi-Square Statistic	d.f.	Significance Level*
Marital Status							
Married	411	86.0	127	84.0	X^2 = .6097	1	p = .4349
Not Married	64	14.0	25	16.0			
	475	100.0	152	100.0			
Age							
0-19	11	2.3	9	5.8			
20-29	211	44.3	80	51.2			
30-39	150	31.5	43	27.6			
40-49	39	8.2	16	10.3	X^2 = 15.36	5	p = .0089
50-59	31	6.5	6	3.8			
60+	34	7.2	2	1.3			
	476	100.0	156	100.0			

(Continued)

Table 6.3 (Continued)

Demographic Variable	Have A Physician N	Have A Physician %	Have No Physician N	Have No Physician %	Chi-Square Statistic	d.f.	Significance Level*
Sex							
Male	297	64.6	120	81.6	$X^2 = 14.307$	1	p = .0002**
Female	163	35.4	27	18.4			
	460	100.0	147	100.0			
Number of Children							
1	117	41.5	25	32.0	$X^2 = 3.263$	3	p = .3528
2	117	41.5	34	43.6			
3	29	10.3	12	15.4			
4+	19	6.7	7	9.0			
	282	100.0	78	100.0			
Age of Oldest Child							
Under 6	111	39.0	27	34.6	$X^2 = 2.036$	2	p = .3613
6-18	158	55.4	49	62.8			
Over 18	16	5.6	2	2.6			
	285	100.0	78	100.0			

(Continued)

Table 6.3 (Continued)

Demographic Variable	Have A Physician N	Have A Physician %	Have No Physician N	Have No Physician %	Chi-Square Statistic	d.f.	Significance Level*
Age of Youngest Child							
Under 6	172	63.7	45	60.0			
6-18	91	33.7	30	40.0			
Over 18	7	2.6	0	0.0	$X^2 = 2.736$	2	p = .2546
	270	100.0	75	100.0			
Number of Adults In Household							
1	48	10.3	17	11.3			
2	405	86.7	130	86.7	$X^2 = .53$	2	p = .7671
3 or more	14	3.0	3	2.0			
	467	100.0	150	100.0			
Income							
Under 5,000	17	3.7	14	9.4			
5,000-7,499	72	15.5	27	18.1			
7,500-9,999	71	15.3	21	14.1			
10,000-14,999	131	28.2	45	30.2	$X^2 = 10.84$	5	p = .0546
15,000-20,000	81	17.5	21	14.1			
Over 20,000	92	19.8	21	14.1			
	464	100.0	149	100.0			

(Continued)

Table 6.3 (Continued)

Demographic Variable	Have A Physician N	%	Have No Physician N	%	Chi-Square Statistic	d.f.	Significance Level*
Occupation							
Professional, Technical	93	20.2	37	24.2			
Manager, Administration	81	17.6	20	13.1			
Sales	27	5.9	10	6.5			
Clerical & Kindred Workers	22	4.8	3	2.0			
Craftsmen & Kindred Workers	74	16.1	28	18.3			
Operatives, except Transportation	17	3.7	7	4.6	$X^2 = 18.956$	12	p = .0896
Transport Equipment Operatives	14	3.0	1	.6			
Laborers, except farm	8	1.7	1	.6			
Farmers & Farm Managers	1	.2	0	0			
Service Workers except Private Household	12	2.6	7	4.6			
Retired	41	8.9	5	3.3			
Student	67	14.5	33	21.6			
Unemployed	4	.8	1	.6			
	461	100.0	153	100.0			

(Continued)

Table 6.3 (Continued)

Demographic Variable	Have A Physician N	%	Have No Physician N	%	Chi-Square Statistic	d.f.	Significance Level*
Home Ownership							
Own	253	53.9	67	44.4	X^2 = 4.33	2	p = .1146
Rent	203	43.3	78	51.7			
Other	13	2.8	6	3.9			
	469	100.0	151	100.0			
Total Moves In Last 5 Years							
0	20	4.7	4	2.7			
1	194	45.4	44	29.7			
2	106	24.8	27	18.2	X^2 = 33.07	4	p = .0000**
3	54	12.6	45	30.4			
4 or more	53	12.4	28	18.9			
	427	100.0	148	100.0			
Familiarity With Fort Worth							
Unfamiliar	126	27.0	60	39.5			
Vaguely Familiar	107	23.0	31	20.4			
Familiar	84	18.0	28	18.4	X^2 = 10.336	3	p = .0159
Very Familiar	149	32.0	33	21.7			
	466	100.0	152	100.0			

(Continued)

Table 6.3 (Continued)

Demographic Variable	Have A Physician N	%	Have No Physician N	%	Chi-Square Statistic	d.f.	Significance Level*
Previously Lived in this SMSA							
Yes	252	69.4	76	63.9	$X^2 = 1.029$	1	p = .3102
No	111	30.6	43	36.1			
	363	100.0	119	100.0			
Region of Previous Residence							
New England	5	1.2	1	.7			
Middle Atlantic	17	4.0	4	2.8			
South Atlantic	37	8.7	18	12.7			
East North Central	24	5.6	8	5.6			
West North Central	23	5.4	6	4.2			
East South Central	29	6.8	11	7.7			
West South Central	226	52.8	63	44.5			
Mountain	22	5.2	11	7.7			
Pacific	33	7.7	8	5.6			
Foreign Country	11	2.6	12	8.5			
	427	100.0	142	100.0			

(Continued)

Table 6.3 (Continued)

Demographic Variable	Have A Physician N	%	Have No Physician N	%	Chi-Square Statistic	d.f.	Significance Level*
Region of Previous Residence (Without Texas Region Included							
New England	5	2.5	1	1.3			
Middle Atlantic	17	8.5	4	5.1			
South Atlantic	37	18.5	18	22.8			
East North Central	24	11.9	8	10.1			
West North Central	23	11.4	6	7.6	$X^2 = 11.28$	8	p = .1862
East South Central	29	14.4	11	13.9			
Mountain	22	10.9	11	13.9			
Pacific	33	16.4	8	10.1			
Foreign Country	11	5.5	12	15.2			
	201	100.0	79	100.0			
Member of Household Who Regularly Sees Physician							
Yes	395	84.8	104	68.0			
No	71	15.2	49	32.0	$X^2 = 19.717$	1	p = .0000**
	466	100.0	153	100.0			

(Continued)

Table 6.3 (Continued)

Demographic Variable	Have A Physician N	%	Have No Physician N	%	Chi-Square Statistic	d.f.	Significance Level*
Number of Physician Contacts Last Year							
0	1	.2	6	3.8			
1	10	2.1	11	7.1			
2	21	4.4	20	12.8			
3	32	6.7	21	13.5			
4	36	7.6	11	7.1			
5	40	8.4	9	5.8			
6	33	6.9	6	3.8			
7	8	1.7	0	0.0			
8	22	4.6	5	3.2			
9	3	.6	0	0.0	$X^2 = 59.265$	15	p = .0000**
10	60	12.6	14	9.0			
11-15	55	11.6	20	12.8			
16-20	44	9.2	8	5.1			
21-25	28	5.9	2	1.3			
26-50	41	8.6	9	5.8			
50+	42	8.8	14	9.0			
	476	100.0	156	100.0			

*For all tests related to H.2 alpha (α) was adjusted as follows: $\alpha_{adjusted} = 1 - (1 - \alpha)^{1/k}$; where α = original alpha, k = number of related tests; therefore $\alpha a = 1 - (1 - .05)^{1/15} = .003$

**Significant

in terms of the sex of the respondent, moving history, and routine contact with a physician. In contrast to the "have no physician" group, which had an overwhelming proportion of male respondents, the "have a physician" group was represented by a large proportion of females. And, this group tended to have moved fewer times in the last five years. The vast majority of the respondents in the "have a physician" group claimed that at least one member of the household sees a physician regularly and the number of physician contacts during the previous year were significantly greater than for the "have no physician" group.

Additional differences, which are not statistically significant, are found in areas such as age, income, occupation, home ownership, region of previous residence, and familiarity with Fort Worth. Respondents in the "have a physician" group tended to be older, earn higher incomes, and be employed primarily as professionals, managers, and craftsman. This group has more homeowners than renters. Over half of this group lived in the Central Southwest prior to moving to Fort Worth, with many of these people having lived in the Fort Worth SMSA. Consequently, the "have a physician" group claimed to be more familiar with Fort Worth than the "have no physician" group.

As previously mentioned, the "have no physician" group contained a small proportion of female respondents. Unlike the "have a physician" respondents, the "have no

physician" group claimed to be more mobile, to have fewer contacts with physicians, and to visit physicians with less regularity. In addition, this group tends to be younger, and earn less income than the "have a physician" group. Although many of the respondents in this group are employed as either professionals, craftsmen, or managers, the second largest occupational category was students. In contrast to the "have a physician" group, this group has more renters than homeowners. However, similar to the "have a physician" group, the largest proportion of this group moved to Fort Worth from within the Central Southwest, with over half having lived in the Fort Worth SMSA. As a result, sixty percent of the "have no physician" group claimed to have some degree of familiarity with Fort Worth, while the remainder were previously strangers, unfamiliar with the area.

Tests of Premise Two

The second fundamental premise of the normative model is that changing situational factors in the lives of consumers may necessitate the need to select a primary care physician for the first time, to re-establish a relationship with a primary care physician, or to change primary care physicians.

To investigate this aspect of primary care physician selection two related research questions were raised. Research question three focused on determining how many consumers in this study were changing physicians rather than selecting one for the first time or re-establishing access to primary care. Ascertaining the major circumstances underlying the need to change or select a primary care physician was the focus of research question four.

Results Related to Research Question Three. Of the 476 respondents who indicated they had a primary care physician, 364 (76.47 percent) previously had a physician. The chi-square statistic was computed to determine whether the results were significantly different from those expected by chance. As shown in Table 6.4, the results are statistically significant and support the decision to accept the hypothesis.

Results Related to Research Question Four. A preliminary analysis of the circumstances cited as reasons for changing or selecting a primary care physician revealed that moving was mentioned more frequently than all of the other reasons combined. More specifically, of 476 respondents, 331 (70 percent) indicated that relocating was the major factor influencing their decision to either select or change physicians. Among the other reasons cited for changing physicians, 32 (7 percent) of the respondents indicated dissatisfaction with their previous physician,

and 19 (4 percent) noted physician retirement as their reason. Interestingly, 27 (6 percent) did not previously have a physician, and 61 (13 percent) had little choice in the selection and indicated that they must use a designated physician.

To determine whether the number of respondents mentioning relocation was significantly different from the other reasons cited the chi-square statistic was computed. The results, as shown in Table 6.4, are statistically significant. Therefore, the hypothesis that moving is a major influencing factor in the decision to either select a primary care physician or change primary care physicians should be accepted.

Tests of Premise Three

The third premise of the normative model is that search for and selection of a primary care physician should take place prior to the need for health care services. Research question five addressed this issue with two related hypotheses. The first focused on a general test of the premise and the second attempted to determine the influence of previously having a physician on the timing of search and selection. Table 6.5 shows the specific hypotheses tested to address these questions and the results obtained.

Table 6.4

Research Hypotheses and Statistical Results Related to Fundamental Premise Two

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level
H3	The majority of the "have a primary care physician" segment previously had another physician.	$X^2 = 133.41$	1	$p<.001$*
H4	A change in residence is the major influencing factor in the decision to either select a primary care physician or change primary care physicians.	$X^2 = 72.68$	1	$p<.001$*

*Significant

Table 6.5

Research Hypotheses and Statistical Results Related to Fundamental Premise Three

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level*
H5.1	There is a significant difference in the proportion of consumers who search for a primary care physician prior to a need for a physician's services and the proportion of consumers who search at the time a physician is needed.	$X^2 = 6.18$	1	.020>p>.010**
H5.2	There is no significant difference in the proportion of consumers who previously had a physician and began searching for a new primary care physician prior to a need for a physician's services and the proportion of consumers who previously did not have a physician but began searching for a primary care physician prior to a need for a physician's services.	$X^2 = 4.12$	1	.05>p>.025

*For all tests related to H5.1 and H5.2 alpha (α) was adjusted as follows: $\alpha_{adjusted} = 1 - (1 - \alpha)^{1/k}$; where: α = original alpha; k = number of related tests; therefore $\alpha_a = 1 - (1 - .05)^{1/2} = .025$

**Significant

Results Related to Research Question Five. Of the 404 consumers who provided information about this question, 227 selected a physician prior to the time of need compared to 177 who waited until the actual need for service arose. As seen in Table 6.5 the difference between these two groups is significant and Hypothesis 5.1 was accepted. On the other hand, for Hypothesis 5.2 there were no statistically significant differences between the proportions of consumers who previously had a physician and those who did not in regard to whether they searched for a physician prior to a need for health services. Of the 372 respondents who had a physician prior to their move, 216 (58 percent) searched prior to a need. In contrast, of the 20 respondents who did not previously have a physician only 7 (35 percent) searched prior to a need. As can be seen in Table 6.5, the computed chi-square is not statistically significant because the p-value is greater than the adjusted alpha. Therefore, the hypothesis was accepted.

Tests of Premise Four

The fourth fundamental premise of the normative model is that some types of physicians are better qualified than others to provide primary care and consumers should restrict their selection to physicians who fall within these categories. Research question six focused on

determining the types of physicians consumers choose to provide their primary care. To answer this question five hypotheses were posited. The first hypothesis compared the types of physicians selected by all of the respondents with the norms established by the model. The remaining four hypotheses focused on comparing the types of physicians selected by various consumer groups, categorized according to family structure. Table 6.6 presents these hypotheses and the results of the statistical tests.

Results Related to Research Question Six. A preliminary analysis of the data found that of the 385 respondents who provided information about the type physician selected for primary care, 352 (91 percent) chose from the categories suggested by the normative model. In some cases, respondents mentioned combinations of physicians which included physicians from the recommended list as well as some not on the list; those indicating such combinations were treated as not conforming to the model. Although the number of consumers who selected their primary care physicians from categories other than those recommended by the model appear to be insignificant, the results of a chi-square test for equality of proportions, as shown in Table 6.6, revealed the data do not support the hypothesis.

Data related to Hypothesis 6.2 showed that of the single adults, 26 chose a general practitioner as their physician while nine selected an internist. As can be seen

Table 6.6

Research Hypotheses and Statistical Results Related to Fundamental Premise Four

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level*
H6.1	There is no significant difference in the types of physicians selected for primary care by consumers and the types of primary care physicians defined by health professionals.	$X^2 = 34.37$	1	$p<.001$**
H6.2	For single adult consumers, there is no significant difference in the proportion who choose general or family practitioners and the proportion who choose internists as their primary care physicians.	$X^2 = 8.26$	1	$.005>p>.001$**
H6.3	For families with no children living at home, there is no significant difference in the proportion who choose general or family practitioners and the proportion who choose internists as their primary care physician.	$X^2 = 14.08$	1	$p<.001$**
H6.4	For families with children living at home, there is no significant difference in the proportion who choose general or family practitioners and the proportion who choose internists as the primary care physician for the entire family.	$X^2 = 107.2$	1	$p<.001$**

(Continued)

Table 6.6 (Continued)

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level*
H6.5	For families with children living at home there is a significant difference in the proportion who choose a pediatrician for the children and a general or family practitioner or internists for the adults and the proportion who choose a general or family practitioner or internist for the entire family.	$X^2 = 136.18$	1	$p<.001$**

*For all tests related to Fundamental Premise Four, alpha (α) was adjusted as follows:
αadjusted = $1 - (1 - \alpha)^{1/k}$; where: $_1\alpha_5$ = original alpha; k = number of related tests; therefore $\alpha_a = 1 - (1 - .05)^{1/5} = .01$

**Significant

in Table 6.6 there was a significant difference between the two proportions of single adult consumers. Thus, the research hypothesis of no difference is rejected.

For Hypothesis 6.3, it was found that 37 families with no children at home selected a general practitioner as their primary care physician in contrast to 11 who chose an internist. The research hypothesis was not accepted indicating that there was a significant difference in the proportion choosing each of the two identified types of practitioners.

In contrast, Hypothesis 6.4 dealt with choice of practitioner in families with children living at home. Of 165 families in this category, 149 selected a general practitioner compared to only 16 families who initially sought out an internist. Based on this proportion of choices, the research hypothesis as seen in Table 6.6 was rejected because a significant difference was noted.

Hypothesis 6.5 was concerned with whether families with children living at home selected a pediatrician for the children and a general practitioner or internist for the adults or if the latter two types of providers were utilized for the entire family. Interestingly, of the 188 respondents, 14 selected the first option and 174 chose option two. As seen in Table 6.6 there was a significant difference; hence, the research hypothesis was accepted.

In order to examine the data from a different perspective the three consumer groups were combined into one group to see if single adult families, families with no children at home, and families with children at home, selected as their primary care physician a general practitioner or an internist. The chi-square test performed on this combination reflected a significant difference (i.e., $X^2 = 9.37$ for 2 degrees of freedom). For the combination, 212 selected a general practitioner while only 36 selected an internist.

Tests of Premise Five

The final fundamental premise of the normative model deals with how consumers should utilize their primary care physician. More specifically, the model advocates the use of the primary care physician as a guide to determining the need for and choice of other health care providers. To investigate this issue two related research questions were posited. Since primary care physicians are considered the entry point of the health care system in that they should be the providers with whom consumers make their initial contact when anything goes awry with their health condition, research question seven dealt with determining if consumers select a primary care physician before selecting other types of physicians. Ascertaining whether consumers

use their primary care physicians as guides to ther health care providers was the focus of research question eight.

Results Related to Research Question Seven. As seen in Table 6.7, Hypothesis 7 was concerned with whether the number of consumers who used the primary care physician as a point of entry to the health care system was different from the number who select other types of physicians prior to selecting a primary care physician. Of 292 respondents, 192 first selected a primary care practitioner while 100 selected another type of physician first. The chi-square obtained for this comparison documented that a significant difference existed and the research hypothesis was accepted.

Results Related to Research Question Eight. Hypothesis 8 focused on whether consumers tended to use their primary care physician as an entry point and referral source for the health care system. Specifically, of 361 respondents having a previous physician other than their current one, 117 used that physician to assist in the selection of other physicians, while 244 claimed not to use their physician in such a manner. As can be seen in Table 6.7 a chi-square of 44.68 led to an acceptance of the research hypothesis; however, the observed difference was not in the direction suggested by the normative model but instead showed a non-use of a physician to select other physicians.

Table 6.7

Research Hypotheses and Statistical Results Related to Fundamental Premise Five

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level
H7	There is a significant difference in the proportion of consumers who select a primary care physician first and the proportion of consumers who select other types of physicians before selecting a primary care physician.	$X^2 = 29.00$	1	$p<.001$*
H8	There is a significant difference in the proportion of consumers who use their physicians to assist in the selection of other physicians and the proportion of consumers who do not use their physicians to assist in the selection of other physicians.	$X^2 = 44.68$	1	$p<.001$*

*Significant

TESTS OF THE PROCESS OF THE MODEL

This section presents the test results of the hypotheses related to the process of the model. Through a stage by stage examination, the validity of the normative model will be established in the sections which follow.

Tests of Stage One of the Model

In the first stage of the model, problem recognition was assumed to vary along two different time dimensions, that is, time relative to need for health care services, and time relative to moving. Research queston nine addressed the issue of problem recognition patterns with two related hypotheses. The first focused on timing relative to the need for health care services, and the second examined the timing relative to a move for those who recognized a need prior to actually requiring the services.

Results Related to Research Question Nine. Of 410 respondents, 227 recognized the need for a physician before they actually needed such services as compared to 183 consumers who recognized such a need when services were required. Although there was a difference between the proportions selecting a physician relevant to the time frame described above, as seen in Table 6.8 the difference is not statistically significant. Therefore, Hypothesis

Table 6.8

Research Hypotheses and Statistical Results Related to
Stage 1: Problem Recognition

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level*
H9.1	There is a significant difference in the proportion of consumers who recognize the need for a primary care physician before a physician's services are needed regardless of whether or not the consumer previously had a physician or whether the event takes place prior to or after a move and the proportion of consumers who recognize the need for a primary care physician at the time a physician's services are needed regardless of whether or not the consumer previously had a physician or whether the event takes place prior to or after a move.	$X^2 = 4.72$	1	.05>p>.025

(Continued)

Table 6.8 (Continued)

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level*
H9.2	There is no significant difference in the proportion of consumers who recognize the need for a primary care physician prior to moving and before a physician's services are needed regardless of whether or not the consumer previously had a physician and the proportion of consumers who recognize the need for a primary care physician after moving but before a physician's services are needed regardless of whether or not the consumer previously had a physician	$X^2 = 1.424$	1	.25>p>.20

*For all tests related to Stage One alpha (α) was adjusted as follows: $\alpha_{adjusted} = 1 - (1 - \alpha)^{1/k}$; where: α = original alpha; k = number of related tests; therefore $\alpha_a = 1 - (1 - .05)^{1/2} = .025$

9.1 cannot be accepted.

Similarly, no significant difference was found between those who recognized their need to select a new physician prior to the move versus those who made this determination after the move. Of 203 consumers, 93 recognized the need for a new physician prior to moving while 110 recognized such a need after their move. Hence, as shown in Table 6.8 Hypothesis 9.2 was accepted.

Tests of Stage Two of the Model

Stage two of the model, situational analysis, is similar to stage one in that it is also concerned with timing. However, in this case the focus is on when the search process begins. The model assumes that search patterns will not only vary but that they will be affected by whether the consumer previously had a physician. Research question ten deals with the timing of search for consumers who previously had physicians, while research question eleven focuses on the commencement of search for consumers who did not previously have physicians.

Results Related to Research Question Ten. The test of Hypothesis 10 dealt with whether differences existed between the proportion of consumers with a physician prior to their move began to search before or after their move. Of 319 consumers who had a physician before their move, 54

began searching prior to the move while 265 waited until after the move to begin their search for a physician. As can be seen in Table 6.9, since a significant difference was found, the hypothesis was rejected.

Results Related to Research Question Eleven. For consumers who did not previously have physicians, Hypothesis 11 posited a difference in the proportion who began searching prior to moving and the proportion who waited until after moving. Of 14 consumers having no physician prior to their move, three began the search before they actually moved, while 11 waited until they moved to begin the search process. At the .05 level of significance the hypothesis was accepted, and it was concluded that a difference did exist.

Tests of Stage Three of the Model

Stage three of the model is the stage in which physician candidates names are collected. The model assumes that more than one name will be obtained and that the sources of information for candidates names will be concentrated within the health care system. Research question twelve was concerned with the number of names identified. The issue of whether consumers sought candidates names from the health care system was the focus of research question thirteen. Finally, research question

Table 6.9

Research Hypotheses and Statistical Results Related to Stage 2: Situational Analysis

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level
H10	There is no significant difference in the proportion of consumers who previously had a physician and began searching for a new primary care physician prior to moving and the proportion of consumers who previously had a physician but waited to begin the search for a new primary care physician until after moving.	$X^2 = 139.56$	1	p<.001**
H11	There is a significant difference in the proportion of consumers who previously did not have a physician but started searching for a primary care physician prior to moving and the proportion of consumers who previously did not have a physician but waited to begin the search for a primary care physician until after moving.	$X^2 = 4.58$	1	.05>p>.025**

**Significant

fourteen examined the types of information sources used with two related hypotheses. The first focused on the use of previous physicians as a source of information. The second hypothesis was directed toward identifying non-physician health care system information sources used by consumers.

Results Related to Research Question Twelve. In testing Hypothesis 12, as seen in Table 6.10, of 367 consumers, 185 obtained the names of more than one physican while 182 obtained only one physician's name prior to making a selection. As expected, statistically there were no differences between the proportions in each category. Thus, the hypothesis postulating a difference is rejected.

Results Related to Research Question Thirteen. The use of personal and impersonal health professional sources were compared to the use of personal and impersonal non-health professional sources in Hypothesis 13. Of 231 respondents, 112 used nonprofessional sources while nearly an equal number, 119, used professional sources. The small chi-square, as seen in Table 6.10, led to a conclusion of no significant difference and a rejection of the hypothesis.

Results Related to Research Question Fourteen. For Hypothesis 14.1, of the 412 consumers who previously had a physician only 156 used a physician as an information source for identifying a new physician, leaving 256

Table 6.10

Research Hypotheses and Statistical Results Related to
Stage 3: Search Phase One: Obtaining Names

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level
H12	There is a significant difference in the proportion of consumers who obtain the names of more than one physician candidate and the proportion of consumers who obtain the name of only one physician candidate.	X^2 = .0246	1	.90>p>.80
H13	There is a significant difference in the proportion of consumers who use personal and impersonal health care professional sources of information for identifying potential physician candidates and the proportion of consumers who use personal and impersonal nonprofessional information sources for identifying potential physician candidates.	X^2 = .212	1	.70>p>.50
H14.1	There is a significant difference in the proportion of consumers who previously had a physician and use physicians as a source of information for obtaining the names of new physician candidates and the proportion of consumers who previously had a physician but did not use physicians as a source of information for obtaining the names of new physician candidates.	X^2 = 24.272	1	p<.001**

(Continued)

Table 6.10 (Continued)

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level
H14.2	For consumers who use personal health care professional sources other than physicians, there is no significant difference in the proportions of consumers who use different types of sources for obtaining the names of physician candidates.	$X^2 = 279.763$	7	$p<.001$**

**Significant

consumers who did not use a physician for this purpose. As seen in Table 6.10 there is a significant difference, consequently, the hypothesis was accepted.

To further specify the sources of information sought in obtaining physician names, Hypothesis 14.2 posited that consumers using personal health care professional sources other than physicians would not use one source significantly more than other sources of names. The data do not support this hypothesis; as Table 6.10 shows, there is significant difference in the sources used. Table 6.11 arrays the sources used in rank order. The most frequently mentioned source for the names of physician candidates is friends, neighbors, and co-workers who are employed in the health field. Less frequently mentioned were sources such as hospitals, relatives working in health care, and the local medical society.

Tests of Stage Four of the Model

Stage four of the model is the stage in which the credentials of the candidates should be established. The model assumes that the variety and quantity of credential information sought will not only vary but that the sources used to obtain the names of physician candidates will also affect behavior in this phase of information seeking. Research question fifteen focused on ascertaining whether

Table 6.11

Sources of Physician Names

Source	Number of Mentions	Percentage	Rank
Friends, Neighbors, Co-workers in Health Care Field	125	43.11	1
Hospital	44	15.17	2
Relative in Health Care Field	35	12.07	3
Medical Society (Local)	27	9.31	4
Druggist	15	5.17	5
Medical School	9	3.10	6
Medical Society (National	7	2.41	7
Other	28	9.31	8
	290	100.00	

consumers, in fact, collect credential information. Two related hypotheses investigate this issue. The first was concerned with whether consumers collected three types of credential information, without regard to the source of the candidate's name. In contrast, the second hypothesis focused on the influence of the name source on credential seeking behavior. Research question sixteen dealt with the similarity between the types of credential information outlined by the model and the types of information consumers actually obtained. Similarly, research question seventeen focused on the similarity between the amount of information collected as opposed to the amount suggested. Finally, research question eighteen was concerned with whether consumers collected credential information before contacting the physician candidate or waited until later in the search process.

Results Related to Research Question Fifteen. As shown in Table 6.12, the calculated chi-square for Hypothesis 15.1 is quite large, indicating a significant difference between the proportion who collected credential information and those who did not. Obviously, the data support accepting the hypothesis. However, accepting the hypothesis does not support the model, instead it indicates that a substantial proportion of consumers do not tend to collect information prior to selecting a physician. Of 375 consumers, 357 stated they had not collected physician

Table 6.12

Research Hypotheses and Statistical Results Related to
Stage 4: Search Phase Two: Obtaining Credentials

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level*
H15.1	There is a significant difference in the proportion of consumers who collect education, certification, and appointments information for each physician candidate and the proportion of consumers who do not collect any information about the physician candidate's education, certification, and appointments.	$X^2 = 306.456$	1	$p<.001$**
H15.2	For consumers who obtain the names of physician candidates from either a hospital, medical school, or medical society, there is no significant difference in the proportion who collect education, certification, and appointments information for each physician candidate and the proportion of consumers who do not collect any information about the physician appointments.	$X^2 = 23.17$	1	$p<.001$**

(Continued)

Table 6.12 (Continued)

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level*
H16	There is no significant difference in the types of education, certification, and appointments information sought by consumers and the types of education, certification, and appointments information identified by health professionals.	$X^2 = 64.666$	1	p<.001**
H17	There is no significant difference in the amount of education, certification, and appointments information collected by consumers and the amount of education, certification, and appointments information suggested by health professionals.	$X^2 = 103.538$	1	p<.001**
H18	There is a significant difference in the proportion of consumers who collect education, certification, and appointments information prior to contacting physician candidates and the proportion of consumers who collect this information after contacting physician candidates.	$X^2 = 6.82$	1	.01>p>.001**

*For all tests related to Stage Four, Search Phase Two alpha (α) was adjusted as follows:
αadjusted = $1 - (1 - \alpha)^{1/k}$; where: $_1\alpha_5$ = original alpha; k = number of related tests; therefore $\alpha_a = 1 - (1 - .05)^{1/5} = .01$
**Significant

information from each of the credential categories (education, certification and appointments) while only 18 did so.

To further investigate credential seeking Hypothesis 15.2 queried whether there was a difference in information seeking prior to selection among consumers who obtained their list of names from either a hospital, medical school, or medical society. Of the 47 consumers who obtained physician names from these sources 40 did not seek information about education, certification and appointment while seven sought such information. Based on the calculated chi-square shown in Table 6.12 the hypothesis is rejected since a difference was found.

Results Related to Research Question Sixteen.

Hypothesis 16, (Table 6.12) dealt with whether consumers sought the same types of information that health care professionals believed was essential to the selection process. Of 119 consumers who sought any information about certification, education, and appointments, 81 selected only one type of information (68 percent) while 20 (17 percent) selected two types and 18 (15 percent) selected information from all three categories. The hypothesis of difference was therefore rejected.

Results Related to Research Question Seventeen.

Similarly, Hypothesis 17 (Table 6.12) dealt with whether differences existed between the amount of information

collected by consumers and that which health care professionals recommended. Of 119 respondents who collected any education, credentialing, and appointment information, only four collected the amount suggested by the model. Hence, the hypothesis holding that no difference would be found was rejected.

Results Related to Research Question Eighteen. In Hypothesis 18, (Table 6.12), the question was raised as to whether differences existed between consumers who collect physician information prior to seeking services versus those who collect such information following the initial contact with the physician. This hypothesis of a difference was accepted. However, analysis of data indicated that of 132 respondents, 81 (61 percent) wait until after contact with the physician to collect this information; therefore, they do not use this data in their initial screening of candidates. Consequently, accepting the hypothesized difference does not support this stage of the model.

Tests of Stage Five of the Model

The fifth stage of the model is the stage in which physician candidates should be compared on the basis of the credential information collected. The model assumes that consumers will vary in the manner to which the information

is used. Research question nineteen focused on the issue of whether consumers evaluated physician candidates on the basis of credential information. Similarly, research question twenty was concerned with whether consumers used credential information to compare physicians.

Results Related to Research Question Nineteen. Hypothesis 19 dealt with determining if differences existed in the proportion of consumers who used credential information to evaluate potential physician candidates and those who did not use this information. As shown in Table 6.13, the hypothesis of a difference was rejected. Of those who had more than one name and used candidate credential information 51 respondents (61 percent) of 83 people used education, certification, and appointment information as a basis for evaluation. Therefore, the comparison idea is partially supported.

Results Related to Research Question Twenty. To further the line of questioning about consumer use of background information about physicians, Hypothesis 20 inquired as to whether consumers who gather such information use it to compare physician candidates. Of 74 respondents who collected some education, certification, and appointment information, 51 (69 percent) used it to compare candidates. Since this was found to be statistically significant (Table 6.13), the hypothesis was accepted.

Table 6.13

Research Hypotheses and Statistical Results Related to Stage 5: Evaluation Phase

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level
H19	There is a significant difference in the proportion of consumers who compare physician candidates on the basis of education, certification, and appointments information and the proportion of consumers who do not use education, certification, and appointments information to evaluate physician candidates.	$X^2 = 4.35$	1	.05>p>.025
H20	For consumers who collect education, certification, and appointments information about physician candidates, there is a significant difference in the proportion of consumers who use this information to compare physician candidates and the proportion of consumers who do not compare physician candidates on the basis of this information.	$X^2 = 10.594$	1	.005>p>.001**

*For all tests related to Stage Five: Evaluation Phase alpha (α) was adjusted as follows:
αadjusted = $1 - (1 - \alpha)^{1/k}$; where: $_1\alpha_2$ = original alpha; k = number of related tests; therefore $\alpha_a = 1 - (1 - .05)^{1/2} = .025$
**Significant

Tests of Stage Six of the Model

The sixth stage of the model is the stage in which consumers should "test shop" the leading physician candidates. Research question twenty-one addresses this issue.

Results Related to Research Question Twenty-One. As seen in Table 6.14, Hypothesis 21 posited a difference in the proportion of consumers who used their first visit to "test shop" instead of for other medically related purposes. Of 485 consumers, 180 said they used the first visit to obtain additional information about the physician while 305 pursued other medically related goals and needs. Based on this response, the hypothesis of a difference in proportion was accepted. However, the difference identified was in the opposite direction from that prescribed by the model.

Tests of Stage Seven of the Model

During the seventh stage of the model selection of a primary care physician takes place. The model assumes that this decision is the result of a rational, analytical process. Research question twenty-two focuses on this process.

Results Related to Research Question Twenty-Two. To test the notion that search for and selection of a primary

Table 6.14

Research Hypothesis and Statistical Results Related to
Stage 6: Search Phase Three: Test Shop

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level
H21	There is a significant difference in the proportion of consumers who use their first visit for the purpose of collecting additional information and/or getting a physical examination and the proportion of consumers who use their first visit for other medically related reasons.	$X^2 = 32.22$	1	$p<.001$**

**Significant

care physician should be a rational, analytical process, Hypothesis 22 focused on whether differences existed in the extent and rigor of the physician search process. Of 476 responses, only one indicated that a rigorous approach had been used, hence, the hypothesis calling for a significant difference was accepted as seen in Table 6.15. However, it should be noted that the difference does not support the model since the difference was in the opposite direction.

Tests of Stage Eight of the Model

In the final stage of the model, some form of post-selection evaluation is assumed. This assessment should focus on the physician selected as well as the selection process itself. Although the model did not specifically address these issues, three research questions were developed to investigate satisfaction with the physician chosen, information sources used, and types of information obtained. Research question twenty-three focused on satisfaction with the physician selected. This issue was addressed with two related hypotheses. The first dealt with the proportions of consumers reporting satisfaction in this study, whereas the second compared the results found by other studies with those found by this study. Research question twenty-four dealt with satisfaction with the sources used to obtain physician names.

Table 6.15

Process Premise: Search for and Selection of a Primary Care Physician Should Be a Rational, Analytical Process

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level
H22	There is a significant difference in the proportion of consumers who follow the extensive primary care physician search and selection strategy that consists of: (1) Obtaining a list of physician candidates names; (2) Collecting education, certification, and appointment information for each name; (3) Comparing physician candidates on the basis of the education, certification, and appointments information; (4) Contacting and eliminating physician candidates not accepting new patients; (5) test shopping; and (6) Selecting a primary care physician and the proportion of consumers who follow a less rigorous approach.	X^2 = 476	1	p <.001**

**Significant

And, research question twenty-five focused on satisfaction with the types of information used to make the selection decision.

Results Related to Research Question Twenty-Three. Hypothesis 23.1, as seen in Table 6.16, evaluated the extent of consumer satisfaction with the selected physician; and, 346 of 375 respondents were found to be satisfied while only 29 were dissatisfied. The research hypothesis predicting satisfaction was accepted and a conclusion of no difference was reached.

To compare the level of satisfaction found in this study with that for the general population, the present study was compared to four other major studies in a cumulative fashion as well as this study compared individually to each other study. When the present study was compared to the AMA, Good Housekeeping, Robert Wood Johnson, and Bell studies, of a total of 11,406 responses on all studies, 10,557 said they were satisfied with their physician while only 849 claimed to be dissatisfied. Computation of the chi square indicated a significant difference leading to rejection of the hypothesis of no difference. Further analysis of the present study in comparison to each of the other studies yielded significant differences between this study and the AMA, Good Housekeeping and Robert Wood Johnson studies and no significant difference between the present study and the Bell study.

Table 6.16

Research Hypotheses and Statistical Results Related to Post-Selection Evaluation

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level*
H23.1	The majority of consumers are satisfied with their primary care physician.	$X^2 = 267.98$	1	p<.001**
H23.2	There is no significant difference between the proportion of the study population claiming to be satisfied with their primary care physician and the proportion reported for the general population.	$X^2 = 426.74$	4	p<.001**
H24	There is a significant difference in the proportion of consumers who found personal and impersonal health care professional sources of information to be helpful in identifying physician candidates and the proportion of consumers who found personal and impersonal nonprofessional sources of information to be helpful in identifying physician candidates.	$X^2 = 1.596$	1	.30>p>.25

(Continued)

Table 6.16 (Continued)

Hypothesis Number	Research Hypothesis Tested	Chi-Square Statistic	d.f.	Significance Level*
H25	There is a significant difference in the proportion of consumers who found education, certification and appointments information to be important in the selection of a primary care physician and the proportion of consumers who found education, certification, and appointments information to be unimportant in the selection of a primary care physician.	X^2 = 278.92	1	p<.001**

*For all tests related to Research Question 23 alpha (α) was adjusted as follows: $\alpha_{adjusted} = 1 - (1 - \alpha)^{1/k}$; where: α = original alpha; k = number of related tests; therefore $\alpha_a = 1 - (1 - .05)^{1/2} = .025$

**Significant

Results Related to Research Question Twenty-Four.

Hypothesis 24 dealt with whether significant differences would be obtained when the usefulness of nonprofessional versus professional sources for physician names were compared. For the purposes of this study professional sources included: Hospitals, medical societies (local), friends in health care, relatives in health care, other physicians, medical directors, medical schools, druggist, and medical societies (national). In contrast, nonprofessional sources in this study included the yellow pages of the telephone book, ministers, real estate agents, friends not in health care, relatives not in health care, insurance companies, insurance agent at work and other nonprofessional sources. Of 564 responses of helpfulness, 297 chose professional versus 267 nonprofessional sources. As shown in Table 6.16, the hypothesis of a difference was rejected.

Results Related to Research Question Twenty-Five.

The final hypothesis, as seen in Table 6.16, tested in this study dealt with the perceived importance of physician qualification information in the evaluation of the choice. Each of the following specific qualifications were examined to determine their perceived importance: Medical and other schooling, year of graduation, year of initial license to practice medicine, site of internship, location and type of residency, board eligibility or academy fellow, whether the physician is on the staff of an accredited hospital and

whether the physician holds a faculty post at a medical school. In all but one of the criteria above, as shown in Table 6.17, chi square scores reflected a significant difference thereby leading to acceptance of Hypothesis 25 on all categories.

SUMMARY OF DATA ANALYSIS

Data were collected from 654 new residents about the problem solving process used in physician selection via 25 research questions and 35 hypotheses. The fundamental premise that everyone should have a primary care physician was confirmed. A variety of demographic differences were noted between those having a physician and those who did not. The profile of the "have a physician" group as being married, older, female with one or two children and to have an above average annual income and be or live with a head of household who held a technical or managerial position was consistent with the demographic profile of other physician utilization studies.

This study also determined that most respondents had a physician prior to their move, changed a physician primarily because of the move and a slight majority selected a physician prior to the actual time services were being sought. Of those with a physician prior to their move, the vast majority searched for a new physician soon after their

Table 6.17

Statistical Results Related to H25

Type Information	Chi-Square Statistic	d.f.	Significance Level*
Medical and other schooling	$X^2 = 4.63$	1	.05>p>.025
Year of graduation	$X^2 = 16.2$	1	p<.001**
Year of initial licensor to to practice medicine	$X^2 = 20.6$	1	p<.001**
Site of internship	$X^2 = 17.19$	1	p<.001**
Location and type of residency	$X^2 = 34.1$	1	p<.001**
Board eligibility or academy fellow	$X^2 = 17.19$	1	p<.001**
On staff of accredited hospital	$X^2 = 66$	1	p<.001**
Holds a faculty post at a medical school	$X^2 = 10.286$	1	.005>p>.001**

*For all tests related to H25 alpha (α) was adjusted as follows: $\alpha_{adjusted} = 1 - (1 - \alpha)^{1/k}$; where: α = original alpha; k = number of related tests; therefore $\alpha_a = 1 - (1 - .05)^{1/8} = .006$

**Significant

relocation and before services were required. This, of course, led to more careful and thoughtful selection compared to those few respondents who choose a physician in an emergency period.

Also, most consumers selected their primary care physician from among those on a list of recommended physicians specializing in general or family practice, pediatrics or internal medicine. Most respondents, both those with and those without children selected a general or family practice physician for all members of the family. Although respondents tended to select their primary care physician first, this person was not considered by them as being instrumental in the later selection of other physicians such as specialists.

Regardless of whether a person had a primary care physician prior to their move, they tended to make their selection after they relocated but, as noted, before the need for services arose. There was nearly an even split between those choosing one versus those obtaining more than one physician's name prior to selection. Respondents also tended to rely on personal, informal sources of information rather than on their previous physician or other health related sources to gather candidate names.

While most consumers in this study did not collect information about physician education, certification, and appointments, those who did found this information helpful.

Similarly, respondents tended to use their first visit to seek care rather than information about physician qualifications. When the total process of actual physician selection was compared to the model, it was determined that only one single respondent followed all stages of the model. Most respondents only followed parts of the model in a random fashion, with the majority relying on personal sources of information and claiming to be satisfied with their choice.

CHAPTER VII

SUMMARY AND CONCLUSIONS

This chapter summarizes and draws conclusions on a study dealing with the selection process used by new residents to locate a primary care physician. To do this, the overall purpose and procedures of this study are summarized, the principal findings are addressed in terms of what conclusions and interpretions can be drawn from comparing the normative model to the behavior of respondents, recommendations for further study are suggested, and finally, a concluding statement is made.

SUMMARY OF PURPOSE AND PROCEDURES

A change in residence creates a number of problems and challenges for the mobile family. Long distance moves are particularly complex in that selection of new suppliers of both goods and services must often be made. Because marketing has for many years been a well-established part of the distribution of goods, the complexity of making such

choices is often reduced by comprehensive and creative marketing approaches.

In contrast, the selection of services is not always aided by sophisticated marketing approaches. Only in recent years has marketing thought been directed toward the selection and distribution of services. Indeed, the most difficult and complex decision area for consumers often lies in the area of professional services where advertising is often prohibited by professional ethics. This is especially true in health care where advertising continues to be somewhat limited. Many consumers seemingly devote more time, energy and critical inquiry to the selection of a car, home or appliance than they do to the selection of health care, particularly the services of a primary care physician.

As previously mentioned, the health delivery system is generally described as a "nonsystem" or a disorganized, uncoordinated assemblage of component parts. The most common entry points include the office-based physician, general hospitals and extended care facilities.[1] The physician serves as the point of entry and navigator through the health care system. They generally determine

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[1]Stuart O. Schweitzer, "Incentives and the Consumption of Preventive Health Care Services," in Consumer Incentives for Health Care, ed. Selma J. Mushkin (New York: Prodist, 1974), p. 48.

what facilities will be used and what services will be provided. Thus, the selection of a primary care physician would seem to be of crucial importance to consumers.

The purpose of this study was to collect information from new residents about the process used in selecting a primary care physician and to compare that information with what would be anticipated from the development of a normative model derived from the literature about how physicians should be selected. Two thousand new residents entering Fort Worth, Texas over a period of nine months were surveyed as to their process of physician selection. Although, the area of physician selection is crucial to well-being, few studies have dealt with this topic. This study compared its findings to those of five previous studies dealing with various aspects of physician selection or related health care behavior in order to test the fundamental premises of the model.

In all, 25 research questions were raised and 35 hypotheses were tested to answer these questions. The research hypotheses were divided into two general categories with the first covering five fundamental premises about who should have a primary care physician, the circumstances creating a need to select a physician, when to search, what type of physician to select and how to utilize the primary care physician once selected. The second category of hypotheses dealt with the process of the

model including problem recognition, situation analysis, search, evaluation, solution, and post-selection evaluation.

Data gathered from the respondents were analyzed in order to test the hypotheses formulated in the study. Summary statistics such as measures of central tendency including the arithmetic mean and standard deviation for interval data, the median for ordinal data and the mode and frequency counts for nominal data were used as were measures of difference including the chi square as a test of difference between two proportions.

FINDINGS, INTERPRETATIONS AND CONCLUSIONS

The data collected allow several types of conclusions to be drawn. Specifically, conclusions can be drawn regarding the two general categories of research hypotheses addressed in this study as well as about how closely the normative model reflects reality as determined by this study. Additionally, some speculations can be offered about ways to revise the normative model as originally conceived in this study so it will more closely approximate reality. In the first category, fundamental premises, the question "Does everyone have a primary care physician" was asked. When the current study was compared to five other major studies positing a similar question

similarities were found with two studies while differences were observed between this study and three of the other studies. Of the three studies in which differences occurred, one was completed in 1955, one in 1961, and a third in the late 1970s. In regard to the difference between this study and the two completed in the 1950s and '60s, it is likely that consumer decision making has changed in the last 20 to 25 years. Likewise, the third study in which a difference was found was conducted in an entirely different region of the country (the midwest versus the southwest) and focused on attitudes toward hospitals and health care for a "have a physician" versus "have no physician" group rather than on the decision making of consumers relative to the selection of a primary care physician.

In contrast, of the two studies reporting findings similar to this one, the study by the Robert Wood Johnson Foundation was completed in the same year, was representative of the U.S. population, and queried consumers about how they obtained medical care and how they evaluated the care received. The Bell study, although completed in the late 1960s was quite similar to the present study in that it dealt only with a mobile population. One general difference in studying physician selection in the total population versus only among mobiles is that moves, especially long distance moves disrupt

family patterns and call for the need to select an entirely new set of service providers. The selection of a physician usually occurs in a relatively short time after a newcomer arrives in a community.[1] However, newcomers are less likely to have a regular physician than are established members of the community.

The fundamental premise of the normative model held that everyone should have a primary care physician. As seen on Table 7.1 several national and regional studies completed between 1956 and 1978 demonstrated that between 78 and 90 percent of respondents had a primary care physician. This study demonstrated a similar tendency in that 75 percent of the new residents acknowledged having a primary care physician. Undoubtedly, the percentage of new residents having a primary care physician would increase with longevity in the community. As reflected in Chapter VI, some newcomers do not select a physician until they actually need one. Although each of the five studies used for comparison purposes purported that all people should have a primary care physician, when the findings of the present study were compared to each of the others significant differences were found between this

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[1]Sidney P. Feldman and Merlin C. Spencer, "The Effect of Personal Influence in the Selection of Consumer Services," in Marketing and Economic Development, ed. Peter D. Bennett (Chicago: American Marketing Association, 1965), pp. 440-452.

Table 7.1

Comparison of Variables Found Significant in this Study with Similar Variables Found in Normative Model: Tests of the Fundamental Premises of Model

Variable	Significant Result Found in this Study	Model
Everyone should have a primary care physician (PCP)	Positive Correlation 75% of respondents said "yes"	Yes: Between 78 and 90% do in regional and national studies
Proportion claiming to have a physician	Negative correlation with three (*) of five studies. 75% do have physician	*AMA 82% *Good Housekeeping 90% *Flexner & Berkowitz 84% Robert Wood Johnson 78% Bell 73%
Those with a physician previously had a physician	Positive correlation 76.47% previously had physician	Yes
Moving is frequent reason to select physician	Positive correlation 70% changed due to move	Priority of change: move, physician death, relocation, retirement or dissatisfaction

(Continued)

Table 7.1 (Continued)

Variable	Significant Result Found in this Study	Model
Timing of physician selection	Positive correlation 227 selected prior to need 177 selected at time of need	Search prior to need
Timing of physician selection: relative to previously having physician	Negative correlation Those with physician chose physician earlier	No difference
Type of primary care physician	Positive correlation 91% chose from those recommended by model	3 recommended types of primary care physicians
Use of primary care physician	Positive correlation 192 selected PCP first while 100 selected another type; however, respondents did not tend to use PCP to assist in the selection of other physicians.	As guide to determining the need for and choice of other health care providers.

study and the AMA, Good Housekeeping, and Flexner and Berkowitz studies, while no significant differences were found between this study and either the Bell or Robert Wood Johnson studies. No factors seem to explain this. The first two studies dealt with all residents in a community and were completed some years prior to the present study, and the Flexner and Berkowitz study was carried out in an entirely different region of the country. While the Robert Wood Johnson study included all residents it was completed in the same year as the present study. The Bell study was the only major study dealing specifically with a mobile population.

As described in Chapter VI, there were some interesting differences in the demographic profiles of consumers having versus those not having a physician. This study was conducted at approximately the same time as the one by Flexner and Berkowitz[1] and several similarities were noted in the demographic profiles of the two groups. In the present study respondents with a physician tended to be married, older, female with one or two children under 18 years, to earn over $10,000 annually with the head of the

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[1]William A. Flexner and Eric N. Berkowitz, "In Search of New Hospital Markets: An Analysis of the 'Have No Physician' Segment," in 1979 Educators' Conference Proceedings, eds. Neil Beckwith et al., (Chicago: American Marketing Association, 1979): 609-614.

household holding a managerial or technical job. Likewise, Flexner and Berkowitz found the "have a physician" group to be older, married, own their own homes and to have their health care expenses paid through a prepaid health plan or a mixture of medicaid, self-pay and other. The present study was carried out in a metropolitan area with no known prepaid health plan, hence, eliminating this possibility for the consumer.

As seen in Table 7.1, research questions three and four dealt with the situations necessitating the selection of a physician. As hypothesized an overwhelming majority (94 percent) of respondents previously had a primary care physician. The major circumstance cited as leading to the need to select a physician was a geographic move. This is not surprising since an estimated 20 percent of the population move annually. In this study 70 percent of the respondents changed physicians because they moved followed by 30 percent who changed due to relocation, retirement or death of the physician and seven percent because of dissatisfaction. Likewise in the Cahal study cited in Kasteler et al.[1] the following reasons were cited in

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[1]Josephine Kasteler, Robert L. Kane, Donna M. Olsen, and Constance Thetford," Issues Underlying Prevalence of Doctor-Shopping' Behavior," Journal of Health and Social Behavior 17(December 1976), p. 328.

descending priority: relocation of the patient, retirement or death of the physician, or referral to another physician. It is of interest to note that in the present study 13 percent made their selection because they had to use a particular provider. The large number of respondents who perceived little if any choice in physician selection is likely due to the presence of a large military installation, two major religious seminaries and several colleges and universities. These facilities tend to provide health care services totally or in part to their employees and students.

The fifth research question addressed consumer search: When to search and under what conditions. The model predicted that consumers would search prior to their actual need for health care. This hypothesis was accepted since more people said they searched under non-need conditions. Of the respondents, 22 percent actually began looking prior to the time of actual need because they knew that in the future some family members would need a physician. This finding was consistent with what Feldman and Spencer, and Bell found in surveying newcomers.[1]

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[1]Feldman and Spencer, "The Effect of Personal Influence in the Selection of Consumer Services," pp. 440-452; James E. Bell, Jr., "Mobiles--A Neglected Market Segment, Journal of Marketing 33 (April 1969): 37-44 and James E. Bell, Jr., Selection of New Suppliers by the Mobile Family, (East Lansing, MI: MSU Business Studies, 1969).

In the present study, 144 or approximately 36 percent searched under a condition characterized by their need to see a physician although not for emergency treatment. Thirty-two respondents (8 percent) waited until an emergency arose to seek medical services.

To further investigate the search process, hypothesis 5.2 posited there was no difference in time of search regardless of whether the consumer previously had a physician or not. According to the model, previously having a physician is not a factor in selection after a move. This study did not support this premise. Those who previously had a physician were more likely to search prior to the need. In this study, 58 percent of the people with a previous physician began searching prior to their move while 35 percent of those not previously having a physician searched prior to the move. One should be cautious in interpreting this since only 20 respondents indicated they did not previously have a physician compared to 372 with one. In any regard, while the results of this study are consistent with that of previous studies, it is not consistent with what the model suggested.

The sixth research question addressed whether consumers choose primary care physicians according to recommended types. Ninety-one percent of the study population indicated that they restricted their source to those advocated by the model. Hypothesis 6.2 postulated that

single adults would not differ in proportion in their choice of general practitioner (family practitioner) or internist. The model suggested that either choice was acceptable. Findings led to the rejection of the hypothesis since there was a difference. Single adults at a 3:1 ratio chose general practitioners (or family practice physicians) versus internists. This, however, in no way violates the prescription made by the model.

Similarly, families with no children living at home were not expected to make a difference in their choice of general (family) practitioners (G.P.) versus internists. Like single adults, they chose on a 4:1 ratio general practitioners over internists. This, again does not violate the provisions of the model since the consumers are still using the recommended types of providers.

Of the families with children living at home, the model predicted an equal distribution of families using general practitioners and those choosing an internist for the entire family. The findings led to a rejection of the hypothesis when approximately 90 percent of the respondents chose a G.P., over an internist. Likewise, of families with children at home the model predicted a significant difference in those choosing a pediatrician for the children and a G.P. for the rest of the family versus those choosing a G.P. for the entire family. A significant difference was found, however, it was in the direction

anticipated by the model. Only eight percent selected a pediatrician for their children. When all groups were clustered together and compared, an overwhelming choice was in favor of the G.P. Economic considerations may have influenced this decision in that G.P.s tend to charge lower fees than either internists or pediatricians. Also, for students and military personnel, G.P.s rather than specialists tend to provide primary care services in their clinics.

Research question seven dealt with whether primary care physicians were chosen before other types of physicians. The model purported that a primary care physician would be chosen first. This hypothesis was accepted and in the direction suggested by the model. Of 292 respondents, 192 or approximately 65 percent said that they chose the primary care physician first. This supports the hunch that the primary care physician is, indeed, the single most influential point of entry into the contemporary health care system. This is the person of first contact between consumers and the health care system and for many is the single or predominant health care provider utilized. Also, as noted earlier the majority of the respondents chose G.P.s versus internists or pediatricians which may indicate a tendency to select for oneself a provider commonly known as a primary care physician. However, respondents did not use their primary care physician as a source of referral to

other physicians. This may have been because many respondents had not needed or desired the services of any other physician.

The next series of research questions involved actual testing of the model. During the first stage, two hypotheses investigated problem recognition patterns. As shown in Table 7.2, the model predicted a difference between people recognizing a need prior to need versus those who did not recognize their need until care was required. The determination of recognition of need could, according to the model, take place prior to or after the move but before the need for care arose. Findings allowed the acceptance of the hypothesis of a difference since 55 percent recognized their need prior to the actual time of care.

Additionally, when controlling for whether a person had versus had no previous physician, the data indicated no significant difference. An almost even split was found in those who recognized the need for a physician's service prior to moving but before care was needed and those who recognized the need after moving but again before services were needed. Specifically, 46 percent recognized the need prior to moving and 54 percent following the move but before the actual need for services.

The next stage looked at situation analysis or timing of the search; before or after the move. As seen in

Table 7.2

Comparison of Variables Found Significant in this Study with Similar Variables Found in the Normative Model: Tests of the Process of the Model

Variable	Significant Result Found in this Study	Model
Problem Recognition: Timing	Negative correlation 227 recognized need for physician before services needed. 182 recognized need at time of service. 93 recognized need prior to move; 110 recognized need after move.	Selection prior to need and prior to moving
Situational Analysis: Timing related to having a physician prior to move	Negative correlation Consumers tend to wait until they move even when they have a pcp	People with a pcp will start selection before move
Seeking candidate names	Negative correlation 185 obtained one name 182 obtained more than one name	Consumer will solicit more than one name
Source of candidate names	Negative correlation 112 used nonprofessional sources; 119 used professional sources	Use of professional sources hospitals, medical societies

(Continued)

Table 7.2 (Continued)

Variable	Significant Result Found in this Study	Model
	Most frequent professional sources were people known to consumer	
Credential evaluation	Negative correlation Significant number did not collect credential information; only a limited number collected information about education, certification and appointment and usually only one type of information. Consumers who do collect such information tend to do so after contacting physician. Of those who collect more than one name, 61% use credentials as a basis of evaluation.	Careful evaluation of candidate's credentials according to education, credentialing and appointment
"Test shop" physician	Negative correlation 305 used first visit to pursue other goals compared to 180 who used it to "test shop"	Consumers use first visit to "test shop"

(Continued)

Table 7.2 (Continued)

Variable	Significant Result Found in this Study	Model
Rigorous physician selection decision	Negative correlation Only one respondent claimed to use a rigorous analytical process	Use rigorous, analytical process
Satisfaction with physician	Positive correlation 346 of 375 respondents were satisfied	Consumer should be satisfied
Usefulness of Sources of Names	Negative correlation 297 chose professional vs. 267 nonprofessional sources	Professional sources should be more useful.
Physician qualifications as a Source of Evaluation	Negative correlation Only medical education and other schooling influenced physician evaluation	Qualifications should be a useful source for evaluating physicians

Table 7.2, the model hypothesized no difference in time of search and made no strong recommendation in either direction as long as the process took place before the need actually arose. This hypothesis was rejected in that an overwhelming number of new residents wait until after they move to select a primary care physician. Specifically, 83 percent of those with a previous physician wait until they relocate to make a new choice. This finding does not invalidate the model but leads one to question how much help previous physicians can be after a move. An issue arises as to when consumers without a physician prior to their move begin their search? The model hypothesized that there would be a difference between consumers with versus those without a physician in the timing of their search. This hypothesis was accepted, but it reflected a weak difference. While statistically significant at the .05 level, the results became insignificant at the .025 level. This may be accounted for due to the small number of respondents to this question (14) since most consumers in this study previously had a physician.

During the search phase, three research questions were raised. The model suggested getting the names of several physician candidates. The research hypothesis anticipated that a difference would be found between

consumers obtaining several versus only one physician candidate's name. Of 376 respondents only 50.4 percent secured the name of more than one physician, hence, the model was not supported. People do not seem to go to great lengths to secure a variety of possible candidate names. This may be due to the lack of objective criteria available to consumers to use in evaluating the names.

Although consumers do not necessarily secure several names from which to select a physician, they do get at least one name since the majority of consumers eventually locate a physician. The model hypothesized that differences would be found between consumers using the health care system and those using less formal sources. Of the 231 respondents, only 52 percent acknowledged using professional health care sources, hence, no difference was concluded, thereby invalidating this part of the model. People do not tend to rely on the health care system as a data source. These findings are consistent with what Feldman[1] found in a study of information flow into consumer decisions. About 20 percent of his sample used a previous doctor or the medical society, whereas, 18 percent relied on parents and relatives and 40 percent queried friends, neighbors and co-workers. Similarly, in a study of 182

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[1]Sidney P. Feldman, "Some Dyadic Relationships Associated with Consumer Choice," in Science; Technology and

newcomers to a community, Feldman and Spencer[1] found that the majority (60 percent) relied on information sources such as friends, neighbors and co-workers, whereas, 15 percent used personal professional sources and 20 percent used nonpersonal sources. Likewise, Bell[2] found that when mobiles chose medical services, personal information was of prime importance and used in over 50 percent of the selection decisions.

Hypothesis 14.1 anticipated a difference in the use of physicians as information sources between those who had a physician prior to moving and those who did not. Although the hypothesis was accepted, the difference was not in the direction to support the model. Of 412 people answering this question, 256 did not use their previous physician as a source of information.

Consumers use multiple sources of information in physician selection. In this study sixteen different sources emerged. Hospitals ranked first in the model, while in the study they ranked sixth and received 44 (6.4%)

Marketing, ed. Raymond M. Haas, (Chicago: American Marketing Association, 1966), pp. 758-775.

[1]Feldman and Spencer, "The Effect of Personal Influence in the Selection of Consumer Services," pp. 440-452.

[2]Bell, "Selection of New Suppliers by the Mobile Family."

of the mentions. Similarly, medical societies ranked second in the model and eighth in the study. Of all sources, friends, neighbors and co-workers ranked second and physicians ranked third. Only 32 percent of the mentions were related to health sources.

Consumers seem to prefer to rely on information sources known to and trusted by the consumer. Hospitals, medical societies and schools may provide objective, accurate knowledge, however, friends, neighbors and co-workers seem to be most influential categories regardless of whether they work in health care.

During the search process the hypothesis was raised about whether to collect credential-type information. The model posited that a difference would be found between those who do collect such information versus those who do not. As seen in Table 7.2 a difference was found but not in the direction expected by the model. Of the 375 people answering this question, 95 percent indicated that they did not collect this type of information. One part of the model said that if you got information from an informed source such as the medical society, a hospital or medical school, there is no need to collect additional information. However, 47 people got information from these sources and 40 (85 percent) did not bother to collect additional information. This, however, does not invalidate the model.

Regarding people who collect credentialing type information the model suggests there would be no difference in the types of information sought. Data analysis, however, indicated that respondents did not consistently collect information in all three categories specified. They were most likely to collect information on the medical school attended and the physician candidate's appointment to a hospital. As discussed in Chapter VI, consumers do not tend to collect information in all three categories, nor do they collect the amount recommended by model.

As seen in Table 7.2, the model recommends that consumers secure information about physician education, credentials, and appointments to various health care establishments. This information is not readily available unless the consumer is willing to make the needed inquiries of either the physician or the physician's staff. Consumers may hesitate to ask for such information. Further, if they were to secure this data they may be unable to evaluate its worth. That is, not all consumers can differentiate the quality of one medical school from another nor do they know what types of certification are held in high esteem among various physician specialty groups. Likewise, consumers generally cannot objectively evaluate the merits of various health care facilities and determine what appointments are more esteemed than others.

Many consumers derive greater comfort in physician selection from relying on the recommendations of people whom they trust, such as friends, family, neighbors, and co-workers. These personal information sources may not be able to evaluate physician credentials but will have an opinion about subjective qualities such as friendliness, interest in and concern for clients.

The next area investigated by the model dealt with when data was collected: Before or after the first contact with the physician. A difference was found in the direction of waiting until after the first contact to collect this information. While this information is not used in screening of candidates, the model is not invalidated at this point since consumers do tend to gather this information soon after making physician contact.

However, just because consumers eventually gather information about the physician does not mean that they change physicians based on the information secured. This information may be used by consumers to verify that they made an appropriate decision. When objective information is obtained, consumers do use it to make better informed decisions about physician selection.

The fifth stage of the model dealt with evaluation of physician candidates based on information collected by the consumer. The model predicted there would be a difference in the users versus the nonusers of this

information. This study found that the overwhelming majority of consumers do not evaluate on the basis of this information. The model proposes this stage as the first phase of screening, however, consumers tend not to take full advantage of this opportunity. However, of those who do collect this information, the majority do use it.

The sixth stage of the model suggests consumers "test shop" or use their first visit for physician evaluation. However, the majority of the study respondents used the first visit for care rather for data collection.

As seen in Table 7.2, the majority of consumers used their first visit for purposes other than "test shopping." This may imply at least two things. First, consumers may be unwilling to pay for a physician visit to gain further data about physician selection; instead, they may desire to receive some medical services for their fee. Also, some consumers while seeking services during their first visit may simultaneously be evaluating the physician and deciding whether to return for future services or seek medical care elsewhere.

Although the hypothesis expecting a difference was supported, it was not in the direction of the model. Of 485 respondents to this question, 63 percent used the first visit for medically related reasons while only 37 percent used this visit in accordance with the model's suggestion.

It seems likely that the high cost of medical care especially physician visits may account for the way consumers use the first visit.

In an attempt to evaluate the model, the entire process was assessed. According to the model, the selection should consist of a rational, analytical series of steps following the problem-solving process. Questions were raised as to whether consumers used what the model prescribed. Findings revealed that one single person followed the process as outlined by the model. Everyone else, however, followed a somewhat less rigorous subset of the process.

The lack of adherence to a rigorous, analytical approach to physician selection may indicate that revisions in the normative model are warranted. Perhaps the normative model reflects an idealistic, academic approach to physician selection rather than realistic gathering of information and the making of carefully thought-out choices. Based on the findings of this study, a more usable normative model might include the variables listed in Table 7.3.

Following selection of a physician the final stage of model evaluation dealt with consumer satisfaction of the selection. The model proposed that this study as well as those reviewed for comparison would reflect that respondents are satisfied with their physician. When all

Table 7.3

Recommended Variables for a "New" Normative Model

1. Everyone should have a primary care physician.
2. Most people do have a primary care physician.
3. New residents currently having a primary care physician previously had one.
4. Moving is the chief reason for selection of a new primary care physician.
5. New residents should search for a primary care physician soon after they relocate and before they need such services.
6. New residents who had a physician previously search earlier than those who did not have a physician.
7. New residents should choose in order of priority: general practitioners, internists, pediatricians.
8. New residents should select a primary care physician before they select a specialist, and attempt to involve the primary care physician in that search.
9. Consumers should use personal sources of information as frequently as professional sources; they should search rigorously but not necessarily seek more than one name nor evaluate the candidate(s) only on objective data such as education, credentials, and appointments. Nor should they use the first visit only to "test shop."
10. Most consumers are satisfied with their physician.

studies were compared a significant difference in satisfaction was found among them. Further analyses indicated that differences existed between this study and the AMA, Good Housekeeping and Robert Wood Johnson studies. However, no significant difference was found between this study and Bell's study of mobiles.

In addition, no significant differences in satisfaction were found among respondents using personal versus data from health care sources as aids in the selection process. Of those indicating their sources were helpful, 53 percent had used professional sources while 47 percent had used nonprofessional sources. As mentioned, nonprofessional sources including the yellow pages of the telephone directory, ministers, real estate agents, friends and relatives not in health care, and representatives of insurance agents are often trusted more than unknown, professional sources.

RECOMMENDATIONS FOR FURTHER RESEARCH

This study compared how consumers actually select a primary care physician versus how the lay and health care literature recommends that such a selection be made. Although this area of research has received limited attention, the findings from this study indicate that consumers do not behave in the manner expected relative to

physician selection. Based on the findings of this study it can be seen that marketers have skills and services to offer in helping consumers make informed decisions about the important quality of health. Suggestions for future research essentially encompass two general areas: acknowledgement of possible limitations of this study and recommendations to strengthen the study design for future replication and usefulness of normative models in marketing and/or health care research. The primary source of information for this study consisted of responses to questions from a sample of the population. Responses to any questionnaire, especially on subjects related to attitudes or highly ego-involved topics, are subject to a variety of limitations. Of key importance is the relatively low response rate, in general, to mailed questionnaires. Although expensive and time-consuming telephone or personal interviewing generally yields a much high response rate than mailed surveys. Often it is not that people dislike answering the questions on the survey, but rather, they fail to assume responsibility for completing and returning the questionnaire. A future study could be completed in a representative metropolitan area by selecting from the population of new residents during a designated interval of time a sample of 200-250 families. These families could then be surveyed by telephone to determine their physician selection behaviors.

Additionally, some respondents may answer questions the way they think they "ought" to answer them rather than according to their own physician selection behaviors. Future studies could explore the use of projective techniques such as by using tools like the semantic differential or open-ended questioning which might provide more data about selection of a primary care physician.

A second major consideration for future research deals with the somewhat unusual features of the health care community and choice of primary care physicians in the study city. Fort Worth, while having many features one would expect to find nationally does have a major military installation, two religious seminaries, and several colleges and universities. Each of these places of employment and higher education provides their own health care services thereby limiting the choices available to some study respondents. Also, selected portions of the Fort Worth population may be younger than found nationally.

One suggestion for further research would be to conduct a similar study or studies in one or more other sections of the country. For example, a study could be completed in a metropolitan area similar in size to Fort Worth which does not contain the same number of employment sites and educational institutions providing health care services. Also, the study could be replicated in cities either smaller or larger than Fort Worth as well as in

different regions of the country to determine if the model is more closely approximated in other geographic locations. Subsequent studies might even focus on segments within a community determined by level of income, education, or occupation. Some categories of community residents may more closely follow the prescriptions of the model than do other groups. For example, more highly educated people may recognize the desirability of gathering objective information about health care providers rather than relying on informal sources.

Another method for evaluating the normative model would be to explore its postulates from the health care providers point of view. According to this study respondents do not tend to look for a physician before they move. Hence, they tend not to rely on former physicians as sources of data about physicians and health care providers and resources in the new area of residence. Yet the model suggests that physicians are and should be called upon for this assistance. An investigation could explore the reality of this aspect of the model. If such a survey were to reflect a current belief on the part of physicians that they do and should serve as reference sources for physician selection in a new location for their current patients then physicians would need to be encouraged to integrate this behavior into their interactions with clients preparing to re-locate.

An array of future research studies could be developed to evaluate each stage of the health care consumer decision process. For example, this study determined consistent with previous research, that the majority of new residents seek a primary care physician prior to actually needing such services. In contrast, a smaller percentage of respondents waited until they actually needed physician services to begin the search process while an even smaller percentage waited until an emergency arose to search for a physician. These tendencies among some consumers can be considered from two divergent perspectives. First, if health is viewed as a valuable state, then it would seem that consumers would choose to maximize their ability to make informed decisions relative to the selection of a primary care physician. If this were the case, then marketers could play a vital role in informing both consumers and health care providers of the type of information useful in physician selection and also how to secure such information.

However, the delivery system for health care services is changing dramatically. These changes may herald an era in which consumers do not need to make advance plans and secure information about physician selection but rather can select a physician at the time of need. For example, the recent advent and rapid growth of for-profit, free-standing primary care clinics and

emergency rooms may indicate that these easily accessible and, in many instances, cost-effective delivery patterns may replace,for many consumers, the primary care physician. Trends such as these may reflect a recognition by health care professionals that people do not actually follow the normative model but rather are currently looking for more efficient and less expensive modes of adequate health care services. These trends within the health care system may herald the beginning of a new, less systematic and rigorous normative model for the selection of a primary care physician. The results of this study would be useful both to entrepeneurs in health care who are introducing new models of service delivery as well as to more conventional types of providers. Each group would be well-advised to be aware of the information consumers use in selecting a physician as well as the timing generally followed by new residents.

This study found most respondents to be satisfied with their choice of physician yet the majority failed to follow the systematic search recommended by the model. This finding leads to a variety of areas for further study. As has been alluded to throughout this study, a primary area for future research is to determine if the normative model has validity in the current era of rapid changes in the health care system. It can be argued based on the findings of this study that the normative model may reflect

the wishes of health care philosophers who are not currently aware of consumer desires and practices. Further testing of the model could lead to considerable revisions and no-doubt streamlining of the decision-making process of health care consumers.

This study calls attention to the need for future research on physician choice and consumer satisfaction. Specifically, two questions arise: are consumers satisfied with their physician choice because they made a wise decision or because they have such limited data upon which to evaluate the quality of a physician? It seems likely that health care consumers do not study the qualifications of the physician they use as carefully as they research choices and options regarding the purchase of a major product. The data gathered from this study indicate that few consumers devote attention to researching physician qualifications. Should information be made readily accessible to consumers of health services about what their options are? Few people would buy a new automobile without reviewing the characteristics of a selected number and making comparisons according to cost, expected performance and durability. What sources are available to consumers to provide similar information pertaining to physician selection?

These and many other questions could be addressed in future research. As another example, it was found in this

study that all families, even those with children tend to use general practitioners, rather than pediatricians, as providers of primary care. Numerous questions arise. Is this choice the most suitable one? Were such selections made based on unique qualifications of this sample or is this a national trend?

Normative models do have a place in marketing and health care research. However, the assumptions underlying the model must be carefully tested and based on realistic not idealistic beliefs. Based on this study a revised normative model for selection of a primary care physician can be postulated. While many of the findings did not reflect the ideal in health care decision-making, i.e. that consumers make informed choices based on multiple sources of objective data, it seems that the findings reflect what a sizable portion of new residents actually do.

If normative models are to be useful both providers and consumers need to be knowledgeable about their content. Physicians need to be aware of when, how and under what general conditions, consumers make health care decisions. Moreover, objective data about physicians and other health care sources needs to be more accessible; and, consumers need to be educated about how to use it in order to more effectively select physicians.

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APPENDICES

Appendix A

Health Care Consumer Survey

and

Pre-survey Procedure Two Questionnaire

TEXAS CHRISTIAN UNIVERSITY

HEALTH CARE CONSUMER SURVEY

1. Do you have a family physician. That is, one you or another member of your family would go to most of the time when medical attention is required? (12)

( ) Yes ( ) No (PLEASE SKIP TO QUESTION 19) ( ) Don't know

2. Did you select this physician within the last three (3) years? (13)

( ) Yes ( ) No (PLEASE SKIP TO QUESTION 19) ( ) Don't remember

3. Thinking back now, can you remember the circumstances that prompted your decision to select this physician? (CHECK MORE THAN ONE ANSWER IF APPROPRIATE) (14-21)

( ) Moved to Fort Worth from another city
( ) Moved from one part of Fort Worth to another
( ) Previous physician retired, died, or discontinued practice
( ) Dissatisfied with previous physician
( ) Have to go to this physician (physician provided by military, school, etc.)
( ) Didn't previously have a physician (was in military, school, etc.)
( ) Can't remember
( ) Other (please specify) _____

4a. Which member of your family first thought about finding a new family physician? (23)

( ) Husband ( ) Wife ( ) Myself (I'm single)

( ) Other (please specify) _____

4b. If you have moved within the last 3 years, did you or the person checked in question 4a begin thinking about finding a new family physician: (24)

( ) Before you moved ( ) After you moved ( ) Haven't moved in the last 3 years

4c. Which member of your family had the major responsibility for looking for a new family physician? (25)

( ) Husband ( ) Wife ( ) Equally divided between husband and wife
( ) Myself (I'm single) ( ) Other (please specify) _____

4d. If you have moved in the last 3 years, when did you or the person checked in question 4c actually begin to look for a new family physician? (26)

( ) Before you moved ( ) After you moved ( ) Haven't moved in last 3 years

5. Now, in terms of your search for a new family physician, under what conditions did you actually begin to look for a new family physician? (CHECK EACH APPROPRIATE ANSWER) (28-31)

( ) Knew that some member of the family would need a doctor in the near future (either for treatment, physical examination, or to renew a prescription)
( ) Needed to see a doctor immediately but not for emergency treatment
( ) At the time of an emergency (illness or an accident)
( ) Other (please specify) _____

6. What is the title of your present family physician? (32)

( ) M.D. (Medical Doctor) ( ) D.O. (Doctor of Osteopathy) ( ) Chiropractor
( ) Other (please specify) _____ ( ) Don't know

7. Is your present family physician the same type (M.D., D.O., Chiropractor, etc.) you had previously? (34)

( ) Yes ( ) No ( ) Didn't have a previous physician ( ) Don't know

8. Which statement below best describes the person you think of as your present "family physician?" (35-36)

( ) General Practitioner ( ) Ob-Gyn ( ) Internal Medicine ( ) Pediatrician
( ) Other (please specify) _____ ( ) Don't know

9. Regarding the question above, did you use any other type of doctor in Fort Worth before choosing your present family physician? (37-38)

( ) Yes (please specify) _____
( ) No

PLEASE GO TO THE QUESTIONS ON BACK OF PAGE

10. Did this doctor help you select the other doctors you use? (39)

( ) Yes ( ) No ( ) Don't remember

11. When you started looking for a new family physician, which of the following information sources did you use to obtain the names of doctors (CHECK AS MANY AS APPROPRIATE)?

	Sources Used	I Found This Source To Be: Very Helpful	Fairly Helpful	Not Helpful	
Local hospital (attending physician, nurse, intern or some other staff member	( )	( )	( )	( )	(41-48)
Local medical society	( )	( )	( )	( )	
Advice of a friend, neighbor or co-worker with special training in health care	( )	( )	( )	( )	
Advice of a relative with special training in health care	( )	( )	( )	( )	
Another doctor	( )	( )	( )	( )	(50-65)
Medical directory	( )	( )	( )	( )	
Medical school	( )	( )	( )	( )	
Druggist	( )	( )	( )	( )	
Yellow pages	( )	( )	( )	( )	
Minister	( )	( )	( )	( )	
Real estate agent	( )	( )	( )	( )	
Friend, neighbor, or co-worker without any special training in health care	( )	( )	( )	( )	
Relative without any special training in health care	( )	( )	( )	( )	(67-76)
Local office of insurance company	( )	( )	( )	( )	
Head of group insurance at place of employment	( )	( )	( )	( )	
National headquarters of medical society	( )	( )	( )	( )	
Other, (please specify) _____	( )	( )	( )	( )	

12. Did you obtain the names of more than one physician? (7)

( ) Yes ( ) No ( ) Don't remember

13. After obtaining the name or names of physicians, which statements describe what you did next. (CHECK AS MANY AS APPROPRIATE) (8-10)

( ) Called or visited office to see if doctor was accepting new patients
( ) Obtained additional information
( ) Can't remember

14. If you obtained additional information about the physician(s), which of the following types of information did you collect? Also, which of these were important to you in selecting a physician?

	Information Obtained	This Information was: Very Important	Fairly Important	Unimportant	
Medical and other schooling	( )	( )	( )	( )	(12-19)
Year graduated	( )	( )	( )	( )	
Year of license	( )	( )	( )	( )	
Internship, where	( )	( )	( )	( )	
Residency, where and what area	( )	( )	( )	( )	(21-28)
Specialty, if any	( )	( )	( )	( )	
Board eligible/Academy Fellow	( )	( )	( )	( )	
On staff of accredited hospital	( )	( )	( )	( )	
Faculty post at medical school	( )	( )	( )	( )	(30-37)
Age	( )	( )	( )	( )	
Length of time in practice	( )	( )	( )	( )	
Other _____	( )	( )	( )	( )	

15a. If you obtained the names of more than one physician, did you compare them based on the information you had obtained? (39)

( ) Yes ( ) No ( ) Didn't obtain more than one name ( ) Don't remember

PLEASE GO TO QUESTIONS ON NEXT PAGE

15b. Which member of your family had the major responsibility for comparing the physicians? (40)

( ) Husband ( ) Wife ( ) Equally divided between husband and wife
( ) Myself (I'm single) ( ) Other (please specify) _____

15c. Who finally made the decision on which physician to select? (41)

( ) Husband ( ) Wife ( ) Equally divided between husband and wife
( ) Myself (I'm single) ( ) Other (please specify) _____

16. When you first visited your present family physician, what was the purpose of that visit? (CHECK AS MANY AS APPROPRIATE) (43-48)

( ) To get additional information about the doctor
( ) Physical examination ( ) Treatment for a minor ailment or illness
( ) To receive an innoculation ( )To have a prescription renewed
( ) Other (please specify) _____

17. Which of the following statements best describes your present family physician? (50-69)

Yes	No		Yes	No	
( )	( )	Explains details of fee structure	( )	( )	Performs surgery
( )	( )	Good personality, attitude, and appearance	( )	( )	Delivers babies
( )	( )	Makes house calls	( )	( )	Uses specialists as needed
( )	( )	Makes night calls	( )	( )	Has access to the hospital you like
( )	( )	Makes emergency calls	( )	( )	Neat, clean office
( )	( )	Takes good notes, and listens to you	( )	( )	Has modern, well-equipped office
( )	( )	Gives thorough examination	( )	( )	Has adequate office help
( )	( )	Provides substitute coverage (has another physician fill-in on days off and vacation)	( )	( )	Has adequate office hours
			( )	( )	Need an appointment prior to office visit
			( )	( )	Office is conveniently located

18. How satisfied are you with your present family physician? (71)

( ) Very satisfied ( ) Satisfied ( ) Dissatisfied ( ) Very dissatisfied

19. Suppose for the moment that you had to select a (new) physician. How important would each of the following factors be to you?

	Very Important	Fairly Important	Unimportant	
Medical and other schooling	( )	( )	( )	(7-11)
Year graduated/year of license	( )	( )	( )	
Internship, where	( )	( )	( )	
Residency, where and what area	( )	( )	( )	
Specialty, if any	( )	( )	( )	
Board eligible or Academy Fellow	( )	( )	( )	(13-17)
On staff of accredited hospital	( )	( )	( )	
Faculty post at a medical school	( )	( )	( )	
Age	( )	( )	( )	
Length of time in practice	( )	( )	( )	
Fee structure	( )	( )	( )	(19-23)
Personality, attitude, and appearance	( )	( )	( )	
Willing to discuss your medical problems	( )	( )	( )	
Listens to you and takes good notes	( )	( )	( )	
Makes house calls	( )	( )	( )	
Makes night calls	( )	( )	( )	(25-29)
Makes emergency calls	( )	( )	( )	
Will talk to you and prescribe on the phone	( )	( )	( )	
Gives thorough examinations, doesn't rush	( )	( )	( )	
Provides substitute coverage	( )	( )	( )	
Performs surgery	( )	( )	( )	(31-35)
Delivers babies	( )	( )	( )	
Uses specialists when required	( )	( )	( )	
Has access to the hospital you like	( )	( )	( )	
Has neat, well-equipped modern office	( )	( )	( )	
Has adequate office help	( )	( )	( )	(37-41)
Has adequate office hours	( )	( )	( )	
Office visits by appointment only	( )	( )	( )	
Office is located close to your home	( )	( )	( )	
Doctor is concerned about you as a person	( )	( )	( )	

PLEASE GO TO THE QUESTIONS ON BACK OF PAGE

20. Does any member of your household routinely (once or more a year) see a doctor? (43)

( ) Yes ( ) No

21. What are the approximate total number of physician contacts (office visits, phone calls, etc.) that your family had during the last year? _____ (44-47)

22. During the past five years, about how many times have you moved from one city to another city? _____ times (48-49)

23. In what city and state did you live before moving to this dwelling? _____. (51-56)

24. Do you own or rent your home? ( ) Own ( ) Rent ( ) Other (58)

25. Before you moved to your present home were you familiar with Fort Worth? (59)

( ) Very Familiar ( ) Familiar ( ) Vaguely Familiar ( ) Unfamiliar

---

WE HAVE JUST A FEW FINAL QUESTIONS ABOUT YOU AND YOUR FAMILY.

26. How many children are living at home? _____ (60-61)

27. What is the age of the oldest? _____ years (62-63)

28. What is the age of the youngest? _____ years (64-65)

29. How many adults live in your home? _____ adults (66)

30. What are tha ages of these adults? _____ Yourself _____ Spouse _____ Others (67-76)

31. In order to know if we have a representative sample of Fort Worth families, we need to know the income groups in the sample. Please check the category that best describes the total income of your household this year. (7-12)

( ) Under $2,500
( ) $5,000 to $7,499
( ) $7,500 to $9,999
( ) $10,000 to $14,999
( ) $15,000 to $20,000
( ) Over $20,000

32. Are you: ( ) Male ( ) Female (14)

33. And one last question, what exactly does the head of the household do for a living? (15-16)

THANK YOU VERY MUCH FOR YOUR TIME AND TROUBLE. YOU'VE BEEN A GREAT HELP IN OUR SURVEY. PLEASE USE THE SPACE BELOW, IF YOU HAVE ANY ADDITIONAL COMMENTS. (17-20)

TEXAS CHRISTIAN UNIVERSITY

MEDICAL PRACTICES SURVEY

Do you have a family doctor? That is, one you would go to most of the time when someone is sick?

C1
1. ____ yes
2. ____ no (skip to *) GO TO PAGE 2--question #C31
3. ____ don't know

Is he a medical doctor, or does he have another title such as doctor of osteopathy or chiropractor or some other title?

C2
1. ____ MD
2. ____ DO
3. ____ Chiropractor
4. ____ Other
5. ____ Don't Know

Thinking back now, can you remember how you happened to choose this doctor in the first place?

C3
1. ____ Recommended by friend or relative
2. ____ Recommended by another doctor
3. ____ Looked in yellow pages or directory
4. ____ Heard of him as civic leader, in an organization or newspaper
5. ____ Met him socially
6. ____ He treated me as member of hospital staff (emergency, etc.) and I later went back to him
7. ____ I have to go to him (clinics provided by military, school, etc.)
8. ____ Can't remember or always been our family doctor
9. ____ Other _____(fill in)

Is your family doctor a general practitioner or does he specialize in one area of practice? (If spececialist) What does he specialize in?

C4
1. ____ General practitioner
2. ____ Don't know
3. ____ Ob-Gyn
4. ____ Pediatrician (Children)
5. ____ Heart Specialist (Cardiology)
6. ____ Back Specialist (Orthopod)
7. ____ Skin problems or a allergy (Dermotologist, Allergist)
8. ____ Internal Medicine
9. ____ Other _____

Comparing your doctor to others you have heard about, would you rate his ability as a doctor as above average, about average, or below average?

C5
1. ____ Above average
2. ____ Average
3. ____ Below average
4. ____ Haven't thought about it, don't know

During the past five years or so have you had an occasion to go to a(nother) specialist of any kind?

C6 1. ____ yes
2. ____ no
3. ____ can't remember, don't know

If yes to above what specialists have you gone to?

C7 ____ Opthalmologist, Optometrist (eyes, glasses)
C8 ____ Surgeon (General, or neuro)
C9 ____ Obstetrician-Gyn
C10 ____ Pediatrician (take children)
C11 ____ Heart (Cardiologists)
C12 ____ Back (Orthopedic)
C13 ____ Skin, Allergy (Dermatologist, Allergist)
C14 ____ Internal Medicine
C15 ____ Other _____
C16 ____ Osteopath

Here's an imaginary question. Suppose your present doctor were to move away suddenly and you had to choose a new one. I have a list of several factors and I would like you to tell me if they would be very important, fairly important, or unimportant. (Write # in space)

	1 Very Import	2 Fairly Import	3 Unim-portant	4 Don't know	
C17	_____	_____	_____	_____	His office is near you
C18	_____	_____	_____	_____	He has access to the hospital you want
C19	_____	_____	_____	_____	He has good personality and appearance
C20	_____	_____	_____	_____	The medical school he attended
C21	_____	_____	_____	_____	How much he charges
C22	_____	_____	_____	_____	What you hear your friends say about him
C23	_____	_____	_____	_____	The appearance of his office
C24	_____	_____	_____	_____	He has had many years of practice
C25	_____	_____	_____	_____	He participates in research or teaching in his field
C26	_____	_____	_____	_____	He has a specialty
C27	_____	_____	_____	_____	He is willing to talk with you about your illness
C28	_____	_____	_____	_____	He is a civic minded leader in community
C29	_____	_____	_____	_____	He makes house calls
C30	_____	_____	_____	_____	He is recommended by other doctors

*Have you or any member of your family had occasion to use a doctor within the last few months--say since the beginning of summer?

C31 1. _____ yes
2. _____ no (Skip to next *) GO TO PAGE 3--question #C33
_____

Was this doctor a:

C32 1. _____ Medical doctor
2. _____ Doctor of osteopathy
3. _____ Chiropractor
4. _____ Other type of doctor

*In a few words, would you describe what is meant when people use the term Doctor of Osteopathy or osteopath?

C33 _____

_____

_____

_____

_____

Have you or any member of your family ever had occasion to use the services of a doctor of osteopathy?

C34
1. ____ yes
2. ____ no
3. ____ don't know

In this last part of the questionnaire, I am going to ask several questions comparing medical doctors or MD's with doctors of osteopathy or as they are often called, osteopaths.

Would you say that a doctor of osteopathy has more education and training than a medical doctor, about the same, or less?

C35
1. ____ more
2. ____ same
3. ____ less
4. ____ don't know

Is it true or false that the State of Texas requires both medical doctors and doctors of osteopathy to take the exact same state examinations before receiving a license to practice?

C36
1. ____ true
2. ____ false
3. ____ don't know

Would you say that a <u>medical</u> doctor would normally charge more, about the same, or less for his services than a doctor of osteopathy?

C37
1. ____ more
2. ____ same
3. ____ less
4. ____ don't know

Do osteopathic doctors and medical doctors in Texas practice at the same hospitals?

C38
1. ____ yes
2. ____ no
3. ____ don't know

Is there a hospital in Fort Worth primarily for osteopaths?

C39
1. ____ yes
2. ____ no (if NO, SKIP NEXT QUESTION)
3. ____ don't know (SKIP)

(If yes to preceding question) Which hospital?

C40
1. _____
2. ____ can't remember, don't know

In our area, would you say that the hospital facilities available to the doctor of osteopathy are better than those available to the medical doctor, about the same, or worse?

C41
1. ____ better
2. ____ same
3. ____ worse
4. ____ don't know

Are Osteopaths accepted as members of the American Medical Association?

C42
1. ____ yes
2. ____ no
3. ____ don't know

Is there a separate professional association for Osteopaths?

C43
1. ____ yes
2. ____ no
3. ____ don't know

Would you expect patients of Osteopaths, in general, to be from the:

C44
1. ____ lower income bracket
2. ____ middle income bracket
3. ____ higher income bracket
4. ____ no opinion or don't know

Would you say that the Medical Doctor is more competent than a Doctor of Osteopathy to treat most ailments, about equally competent, or less competent?

C45
1. ____ more
2. ____ same
3. ____ less
4. ____ don't know

Do Doctors of Osteopathy have the same specialties as Medical Doctors?

C46
1. ____ same specialties
2. ____ no specialties
3. ____ some specialties but not as many
4. ____ don't know

When you read something about medical doctors in the newspaper, would you say it is:

C47
1. ____ usually favorable
2. ____ usually unfavorable
3. ____ about half and half
4. ____ don't know

When you read something about Osteopaths in the newspaper, would you say it is:

C48
1. ____ usually favorable
2. ____ usually unfavorable
3. ____ about half and half
4. ____ don't know

Just two more questions about doctors. Let's assume you were visiting in another city and had no information about the doctors there.

If you were to get a severe, continuing pain in your back and neck, which of the following types of doctors would you be most likely to call?

C49
1. ____ MD
2. ____ Osteopath
3. ____ Chiropractor
4. ____ some other type
5. ____ don't know

Lets assume that you have had a stomach pain for several days which is not getting better. Which of the following types of doctor would you be most likely to call?

C50
1. ____ MD
2. ____ Osteopath
3. ____ Chiropractor
4. ____ some other type
5. ____ no preference
6. ____ don't know

We have just a few final questions about you and your family. How many children are living at home?

C51
0. ____ none
1. ____ one
2. ____ two
3. ____ three
4. ____ four
5. ____ five or more

Which of these categories does your age fall in?

C52
1. ____ under 25
2. ____ 25-34
3. ____ 35-44
4. ____ 45-54
5. ____ 55-64
6. ____ over 65

In order to know if we have a representative sample of the Metropolitan Area, we need to know the income groups in the sample. Please check the category that best describes the total income of your household, this year.

C53
1. ____ under $5,000
2. ____ $5,000 to 7,499
3. ____ $7,500 to 9,999
4. ____ $10,000 to 14,999
5. ____ $15,000 to 20,000
6. ____ over $20,000

During the past five years, about how many times have you moved from one city to another city?

C54
0. ____ none
1. ____ once
2. ____ twice
3. ____ three times
4. ____ four times
5. ____ five times or more
6. ____ no answer

6

Are you:

C55 1. ____ male
2. ____ female

And our last question, what exactly does the head of the household do for a living?

C56 _____

THANK YOU VERY MUCH FOR YOUR TIME AND TROUBLE. YOU'VE BEEN A GREAT HELP IN OUR SURVEY.

Appendix B

Proposal to Protect Human Rights

TEXAS CHRISTIAN UNIVERSITY
Fort Worth, Texas 76129
817-926-2461

Associate Dean of the University and
Dean of the Graduate School

November 2, 1976

To: Faculty and University Staff
From: John C. Hitt
Subject: Research Involving Human Subjects

The University policy on Research Involving Human Subjects was adopted some years ago and is stated on page 43 of the Faculty/University Staff Handbook 1976-1977. It reads in part,

> "Human research is defined as any investigating activity involving interviews, questionnaires, or treatments of any kind requiring the participation of human subjects or respondents, whether conducted on or off campus, as a classroom or research exercise, with or without the intent to publish."

Although the policy has not been substantively altered since its adoption, some aspects may need clarification.

First, the intent of the policy is to protect the individual human subject regardless of the setting or circumstance in which research takes place. Therefore the policy applies whether the research is funded or nonfunded, on or off campus, in a classroom or laboratory.

Secondly, the participation must be voluntary. According to the TCU policy the investigator must demonstrate that:

> "...the methods and procedures reflect respect for the feelings and dignity of respondents or subjects and avoid unwarranted invasion of privacy or disregard for anonymity in any way;
>
> the participation is informed and completely voluntary, and procedures for obtaining such consent are adequate and appropriate."

If students are to be used as subjects, their participation must be voluntary and equitable alternatives for nonparticipants must be available.

The Committee on Safeguards in Human Research has been assigned the responsibility of reviewing all research involving

human subjects. To assure that TCU complies with governmental regulations, to implement TCU policy, and to ease the burden on the investigator the Committee has adopted the following procedures:

1. The Committee will meet regularly on the third Tuesday of each month.
2. Proposals must be submitted to the Chairman of the Committee at least one week before the Committee meets.
3. Twelve (12) copies of the proposal must be submitted on the standard form. The form can be obtained in the Office of Research Coordination, Room 208, Sadler Hall.
4. The principal investigator should plan to be present when the committee meets.
5. A two-tier evaluation process will be used by the Committee. If the subjects are deemed "not at risk", the principal investigator has fulfilled his responsibility and will be so informed by the Chairman of the Committee. If the subjects are "at risk" additional information and documentation will be requested by the Committee.

I am sure we share concern for the safeguard of the rights, dignity and well-being of human subjects in research carried out by TCU faculty, staff and students. The Committee has adopted policy and procedures which will protect the subject with minimal burden of compliance on the principal investigator. Your cooperation in this area is greatly appreciated.

RESEARCH INVOLVING HUMAN SUBJECTS

REQUEST FOR APPROVAL OF RESEARCH PROPOSAL

TO: University Committee on Safeguards in Human Research

(Please Type)

Date November 24, 1976

1. Tentative Research title:

   A Study of the Family Decision-Making Process in the Selection of A Primary Care Physician by New Residents of Fort Worth, Texas

---

2. List the name and the Faculty/Student/Staff status of those persons conducting the research:

   a. Principal investigator - Ivie Wade Lancaster, III
      Instructor of Marketing

   b. Others -

---

3. Proposed time-span of research:

   December 1, 1976--May 31, 1977

---

4. Funding - If funding is to be requested, indicate the funding agency to which the proposal will be sent, the amount of the request, and the due date of the application.

   a. Agency - Self funded at this time

   b. Amount to be requested -

   c. Due date for application -

To principal investigator: The Committee on Safeguards in Human Research will need 12 copies of this form for distribution to members of the Committee. If the proposal is to be submitted to a funding agency, please include one copy of the complete proposal.

Return the completed approval forms (and the complete proposal, if appropriate) to the office of Research Coordination, Sadler Hall, Room 208.

Research Proposal, p. 2

5. In a paragraph or two, summarize the focus of the research proposal:

In recent years there has been an increasing emphasis placed on the application of marketing to widely-divergent institutions, organizations, and social ideas. It has been suggested that marketing concepts can be applied to the delivery of health care and that anticipated future changes in the health care delivery system will require effective marketing. The proper design of a future health care delivery system requires a detailed understanding of consumer decision-making. Compared to the attention given to consumer behavior for durable and nondurable goods, relatively little study has been made of consumer behavior in the health care setting. In view of this fact, the focus of the proposed research project is to examine the behavior of new residents as they attempt to gain access into the contemporary health care system.

The general research question of this project is: How do new residents identify, evaluate, and select purveyors of primary health care services? This general research question will be investigated by examining several components of the problem: (1) information-seeking and information-processing behavior, (2) evaluation behavior, (3) selection behavior, and (4) decision responsibility.

6. Describe the ways in which human subjects will be used:

Human subjects will be used in two different phases of this study. In the first phase, an exploratory study will be undertaken with the objective of developing a phenomenological model. This type of model will describe the problem as it appears to the consumer not the investigator. The phenomenological model will be developed by using a consumer buying protocol. By sampling a number of people who recently moved through the process under study, the investigator can map the consumer's buying process. The model is developed by asking the buyer to recall the sequence of thoughts and feelings that went through his mind from the time he was first aroused, how he gathered information, what problems he tried to resolve, how he made his final decision or choice, and how he felt afterward.

Based on the information gathered from the buyer protocols, a model will be developed with objective of delineating factors involved in the decision-making process. In the second phase of the study, human subjects will be asked to respond to a mail questionnaire for the purpose of testing the model.

7. Attendant risk - indicate any physical, psychological, or social risks, which may be reasonably expected, to human subjects.

As it appears to this investigator, there should not be any attendant risks to human subjects who participate in this project because participation will be voluntary.

Research Proposal, p. 3

8. Describe the means through which human subjects will be informed of their right to participate, not to participate, or withdraw at any time. Where students are used as subjects, indicate alternatives available to the student in lieu of participation:

In the buying protocol phase, potential participants will be contacted by telephone and invited to participate in the study. At that time they will be informed of the nature and purpose of the project. In addition, they will be informed that participation is strictly voluntary. In the second phase, the cover letter accompanying the questionnaire will provide participants with similar information.

9. Describe how the procedures reflect respect for the privacy, feelings and dignity of subjects, and avoid unwarranted invasion of privacy, or disregard anonymity in any way:

While the nature of this research project does not appear to represent any real invasion of privacy, the procedures outlined above will safeguard and ensure respect for privacy, feelings and dignity of subjects. As previously noted, the procedure for collecting data for the buyer protocols will be telephone interviews conducted by the investigator. Potential respondents will be informed that participation is voluntary. Moreover, they will be advised that the information they provide will only be used to develop the model and questionnaire. With respect to the second phase of data collection, potential participants will also be informed that completing the questionnaire is voluntary. Thus, any potential respondent who feels that participation in the project would represent an invasion of privacy has the right and the freedom not to participate.

10. Describe the procedures to assure confidentiality in the use, storage, and disposal of the primary data:

Data gathered from participants in the first phase of this research project will only be used to develop the model and questionnaire. Therefore, no attempt will be made to code or otherwise identify respondents. Likewise, date gathered in the second phase, the mail questionnaire, will be aggregated. Thus, no attempt to code or identify respondents will be made because data will be collected in one wave with no follow-up.

Since this data is being collected for my doctoral dissertation it will be held until I have successfully completed my oral defense.

TEXAS CHRISTIAN UNIVERSITY
Fort Worth, Texas 76129
817-926-2461

Department of Sociology

December 9, 1976

Mr. Ivie W. Lancaster
School of Business
Texas Christian University

I am pleased to inform you that your research proposal, A Study of the Family Decision-making Process in the Selection of a Primary Care Physican by New Residents of Fort Worth, Texas was approved by the Committee on Safeguards in Human Research at its regular monthly meeting on December 7, 1976.

Sincerely yours,

Robert H. Talbert

Robert H. Talbert, Chairman

You will recall ve requested copies of your cover letter when available.

Appendix C

Protocol Questions

GUIDELINES AND

QUESTIONS USED IN PROTOCOL INTERVIEWS

1. Dial number (5rings)
2. Good morning (afternoon, evening) is this the _____ residence?
3. My name is Wade Lancaster, I am an Instructor at Texas Christian University
4. I am doing some preliminary work on a major study that will investigate the health care system in Fort Worth.
5. As a consumer and a relatively new resident of Fort Worth--I would like to ask you a few questions
6. Since moving to Fort Worth, have you had an opportunity to select a physician?
7. When did you start trying to locate one-- before you moved or after you arrived in Fort Worth?
8. Do you have a preference for M.D.'s or D.O.'s?
9. Do you have a preference for General Practitioners or specialists?
10. How did you first learn the name of your doctor?
11. Did you obtain the names of more than one physician, and then select from those names?
12. Did you check their credentials?
13. Why did you select your doctor?
14. Have you been satisfied?
15. Who in your household shared in your decision making?
16. Thank you for your time --our discussion has been most beneficial.

Appendix D

Pre-test Cover Letters

TEXAS CHRISTIAN UNIVERSITY
Fort Worth, Texas 76129
817-926-2461

M. J. Neeley School of Business

Date

Name
Street Address
Fort Worth, Texas 761--

Dear:

Will you do us a favor?

We are conducting a city-wide survey among Fort Worth families. The purpose of this research is to find out how you and others like yourself select physicians. Your answers will enable us to be aware of the information needs of health care consumers and this in turn will help us to provide improved information to families searching for a physician.

It will take but a few moments of your time to answer the simple questions on the enclosed form and you might find it a pleasant experience. Your answers are very important to the accuracy of our research.

Your answers will be kept confidential and used only in combination with others to get a composite picture. We have enclosed a postage paid reply envelope for your convenience.

Thank you for your valuable assistance.

Sincerely,

Wade Lancaster
Project Director

wl

Enclosures

TEXAS CHRISTIAN UNIVERSITY
Fort Worth, Texas 76129
817-926-2461

M. J. Neeley School of Business

May 9, 1977

Dear Reader:

Recently we sent you a questionnaire asking how you, and others like yourself, feel about our health care system and how you use it on a regular basis. As we sent out only a limited number of these, your answer is very important to the accuracy of our research.

To guarantee accuracy in our research, we followed a very specific procedure in selecting the people who received our questionnaire. If you have already returned the form, this is our way of saying, "Thank You." If you have not had a chance to answer, we should be most grateful if you would do so now. Even if you feel that some, perhaps most, of the questions don't really apply to you or your family, please answer only those which do. We need your questionnaire even if not completely filled out. Your answers will be held in strict confidence and will be used only in combination with the other answers we receive to build a composite picture.

Your help in making our research effort a success is appreciated.

Sincerely,

Wade Lancaster
Project Director

wl

Enclosures

P.S. Possibly our original request went astray in the mails. Therefore we enclose another form, together with a postage paid reply envelope for your convenience.

Appendix E

Survey Cover Letters

TEXAS CHRISTIAN UNIVERSITY
Fort Worth, Texas 76129
817-926-2461

M. J. Neeley School of Business

May, 1977

Kenneth Johnson
4913 Kessler
Fort Worth, Texas 76114

Kenneth Johnson:

It seems as if hardly a week goes by without some newspaper, magazine, or television news program running a special feature or report on the problems surrounding health care in the United States. Few, however, of these reports look at health care from the viewpoint of the American consumer. A research team at Texas Christian University is conducting a city-wide survey among Fort Worth families to find out how you, and others like yourself, feel about our health care system and how you use it on a regular basis.

Will you do us a favor?

Will you take the time to answer the questions on the enclosed form and return it to us? To guarantee accuracy in our research, we follow very specific procedures in selecting the people who are receiving this questionnaire. As a consequence, your answers are very important to us. Even if you feel that some, perhaps most, of the questions don't really apply to you or your family, we need your answers so that we can build a complete picture of what health care consumers in the Fort Worth area believe.

The answers you provide will be kept confidential and will be used only in combination with the other answers we receive to build a composite picture. We are enclosing a postage paid reply envelope for your convenience.

Your help in making our research effort a success is appreciated.

Sincerely,

Wade Lancaster
Project Director

wl

Enclosures

TCU
TEXAS CHRISTIAN UNIVERSITY
Fort Worth, Texas 76129
817-926-2461

M. J. Neeley School of Business
Department of Business Management

June 10, 1977

Dear Reader:

Recently we sent you a questionnaire asking how you, and others like yourself, feel about our health care system and how you use it on a regular basis. As we sent out only a limited number of these, your answer is very important to the accuracy of our research.

To guarantee accuracy in our research, we followed a very specific procedure in selecting the people who received our questionnaire. If you have already returned the form, this is our way of saying, "Thank you." Your cooperation makes it possible for us to develop a more accurate understanding of how residents of Fort Worth view and utilize our health care system. If you have not had a chance to answer, we should be most grateful if you would do so now. Even if you feel that some, perhaps most, of the questions don't really apply to you or your family, please answer only those which do. We need your questionnaire even if not completely filled out. Your answers will be held in strict confidence and will be used only in combination with the other answers we receive to build a composite picture.

Your help in making our research effort a success is appreciated.

Sincerely,

Wade Lancaster

Wade Lancaster
Project Director

wjl

Enclosures

P.S. Possibly our original request went astray in the mails. Therefore, we enclose another form, together with a postage paid reply envelop for your convenience.