Economic Issues of Pharmaceutical Care: The Patient's Perspective[1]

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This paper discusses specific trends in health care financing impacting the demand for health care services, and examines the patient provider relationship from an economic perspective. Patients are paying more out-of-pocket for health care likely promoting demand for health care goods and services high in quality and value. When the patient-provider relationship is examined from an agency perspective, the importance of patient preferences for health care, especially preferences related to interpersonal aspects of health care become important. It is suggested that pharmacy researchers examine the importance of interpersonal preferences in the provision of pharmaceutical care and educators heighten students' awareness and assessment of interpersonal preferences during patient interactions.

INTRODUCTION

The title of this session, Pharmaceutical Care: The Lost Patient, suggests the patient is not being considered in the framework of pharmaceutical care. The purpose of this paper is to discuss trends in health care financing which suggest patients are and will be concerned with the quality and value of dollars spent on health care and to examine the patient provider relationship from an economic perspective, discussing a theoretical framework and deriving implications from that framework. The significance of examining this issue from an economic perspective is to provide insights for pharmacy researchers and educators for developing pharmacist-provided goods and services which are high in quality and value.

HEALTH CARE FINANCING TRENDS

The first trend in health care financing concerns health care expenditures. Aggregate and per capita personal health care expenditures in the United States have increased over the past decade. Aggregate personal health care expenditures increased from $220.1 billion in 1980 to 782.5 billion in 1993, an average annual growth rate of 19.7 percent(1). Per capita health care expenditures increased 216 percent between 1980 and 1993 or an annual increase of 16.6 percent(1). At issue is how the increase in expenditures has been financed. In the public sector, one method of financing is to increase taxes for citizens. Additionally, public programs may cut the scope of benefits provided to eligible persons or limit the number of people who are eligible for benefits under a particular program by adjusting eligibility criteria.

In the private sector, businesses pay for a majority of health care spending. In response to higher health care costs, businesses have several options: reduce health benefits; lower workers' wages or other benefits so that total compensation does not rise; reduce employment; lower returns to shareholders; reduce payments to other factors of production; reduce investment in plant and equipment or research and development; and/or raise prices to their customers(2).

Economic theory suggests that most of the increase in health care costs will be reflected in lower wages due to the tax treatment of health care benefits. The reason is that firms are indifferent toward spending a dollar on wages or on health premiums. However, since health premiums are not taxed, employees would rather receive compensation in the form of increased benefits since employees receive the full dollar value of this form of compensation. If they were to receive the compensation in the form of increased wages, they would receive a dollar value net of the marginal tax rate on the wages. Thus, compensation will be directed toward health benefits at the expense of increased wages.

The share of health benefits in total labor compensation rose from 1.8 percent in 1960 to 8.5 percent in 1992(3). Correspondingly, the share of total labor compensation allocated to cash wages decreased(3). In absolute terms, real wages and salaries have barely increased in 20 years(3). Working men and women have paid for their escalating health costs by taking home lower wages than they would have otherwise.

The second trend in health care financing is the growth in patient out-of-pocket expenditures for health care goods and services. Direct out-of-pocket payments consist of copayment and deductible amounts required by insurers, direct payments for medical goods and services not covered by insurers, and patient payments for insurance premiums above and beyond the amount paid by employers. The growth in patient out-of-pocket expenditures results as employers have attempted to control their share of spending for health care coverage. Employers can purchase policies for employees which cover fewer medical goods and services, thus resulting in lower premiums for the coverage. Additionally, employers can purchase coverage which requires increased cost-sharing by patients which reduces the amount insurers must pay for goods and services utilized, likely resulting in lower insurance premiums for the employer. Between 1980 and 1993 out-of-pocket health care expenditures have increased from $261 per capita to $588 per capita, an increase of 125 percent or 9.7 percent per year(1).

The financing trends show that consumers' wages are not growing with the rest of the economy and consumers are paying more out-of-pocket for health care. In economic

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terms, consumers' budget sets are shrinking and their allocation of utility producing goods they can purchase is changing as they have to pay more for certain goods with less(2). Thus, consumers will attempt to get the most utility from those goods and services they purchase(2).

As wages fail to grow with the economy, and health care consumes more and more of wages, one implication is there will be a point where consumers begin to question the value and quality of the health care product they consume. There likely will be increased pressure from consumers to be provided health care goods and services higher in quality and value. From an economic perspective there is a need to increase the efficiency and effectiveness of the health care system so consumers can receive more value for money spent. This possibly will result in better health care outcomes potentially decreasing overall health care costs. This in turn may reduce expenditures for health benefits subsequently resulting in an increase in real growth in wages.

AN ECONOMIC PERSPECTIVE OF THE PATIENT-PROVIDER RELATIONSHIP

In theory, pharmaceutical care is concerned with improving the efficiency and effectiveness of drug therapy by improving patient outcomes and, hopefully, saving health care resources(4). However, a logical question to ask is how can pharmaceutical care be provided to insure it will be of high quality and value and be demanded by consumers. Examining the demand for pharmaceutical care, and health care in general, from an economic perspective provides insights which may be useful for pharmacists, educators and researchers to promote the provision of pharmaceutical care high in quality and value.

Typically, economic analysis of demand focuses on a market characterized by among other things, perfect information(2). Health care markets, however, suffer from information problems(5). Most patients do not have the expertise to make medical care decisions on their own. Thus, patients are dependent on other parties (*i.e.*, physicians, pharmacists) to make decisions for them. Dependency between parties is important in the health care system due to the requisite specialized knowledge of parties to make decisions concerning the use of health care resources(6).

Various arrangements have evolved to handle information problems in health care markets. Primary among them is the manner in which medical decisions are made. Basically, medical care decisions are made by a provider on behalf of a patient using the preferences and decisions of both providers (as suppliers) and patients (as consumers). The provider thus acts as an agent of the patient providing the medical goods and services the patient would have chosen had he or she had knowledge and medical authority to make decisions(5,7).

Whenever one individual depends on another, an agency relationship arises(8). An agency relationship is defined as a contract under which one or more persons(principals) engage one or more other persons (agents) to perform some service on their behalf which involves delegating some decision making authority to the agents(9). The motive behind this delegation of authority is that the principal recognizes he/she is relatively uninformed about the most appropriate decisions to be made and that the deficiency is best resolved by having an informed agent. A patient (principal) asking a pharmacist (agent) about the choice of an over-the-counter (OTC) drug product is one of many examples of an agency relationship in health care markets.

Once the service is provided by the agent, the outcome of the service falls on a continuum between perfect agency (the service is congruent with what the principal would have done) and imperfect agency (the service is not congruent with what the principal would have done). The possibility of imperfect agency results from assumptions surrounding the agency relationship. The first assumption is that agents are motivated by self-interest which likely results in conflicting goals between principals and agents(10). One factor related to self-interest is the amount of effort a provider(agent) puts forth to accomplish a task(10). Effort is a disutility to a provider, but has value to patients since the chances of a favorable outcome increase as the provider puts forth more effort(11). For example, a pharmacist (agent) may not take the time (effort) to call a patient and inform them of a prescription which has been at the pharmacy for a few days, assuming, instead, that the patient does not want to take the prescription. The lack of effort by the pharmacist may result in an illness progressing, possibly leading to another physician office visit for the patient.

The second assumption is that parties in an agency relationship suffer from information problems(10). There basically are two types of information problems in health care markets, providers and patients having inadequate amounts of information and providers and patients having the wrong type of information(6,12). An illustration of inadequate amounts of information is a pharmacist knowing that a patient must pay a copayment for a prescription but not knowing what is the dollar amount of the copayment. In terms of inadequate types of information, a patient likely is poorly informed, compared to the provider, about his or her condition, the treatment available, expected outcomes, and prices charged by other providers. However, a patient may know, for example, the amount of treatment they want or in what form they want treatment. Conversely, although the provider may know what inputs and the quantity of those inputs to employ to treat a condition, the provider may not know how much of an input a patient wants, or in what form a patient wants treatment.

Contrary to other markets, in health care markets there are strong incentives for providers (agents) to consider patients' (principals') interests and gather appropriate amounts and types of information(13). The first incentive is a sense of ethics. For example, general ethical principals may cause providers to limit the degree to which patients are treated differently on the basis of income or insurance coverage.

Second, the economic incentive of a good reputation encourages providers to consider patients' interests. A good reputation prevents agency problems especially since many health care services are purchased repeatedly(6). For example, if a pharmacist has a reputation for not taking time to explain medication problems with patients, it is possible that patients will not want to return to the pharmacy where the pharmacist practices. If a large amount of a pharmacy's business is due to repeat purchases, patients' refusals to purchase services from the pharmacy in the future may be an effective means of changing behavior of the pharmacist. Thus, a pharmacy with a negative reputation may have a limited business. Conversely, a pharmacy with a positive reputation may be able to create a brand identity and capitalize on reputational effects(14).

An additional advantage of a good reputation is the

increased likelihood of long term relationships with patients. Long term relationships increase the likelihood of an agent performing actions congruent with a principal's interests since the longer an agent performs tasks for a principal the greater the likelihood that the agent gathers information relative to the principal's preferences(10). Thus, as the relationship develops the agent can tailor the provision of goods and services to the principal's desires, assuming that effort is expended by the agent to gather the information and consider the preferences of the principal when providing goods and services.

The final incentive is the enhanced ability of a provider to inform patients that the provider has qualities patients prefer via signaling. Signals inform patients(principals) of the characteristics of a good or service or the characteristics of a provider(agent)(11,12). Providers who spend time and effort considering patients' best interests and gathering appropriate amounts and types of information likely will learn what factors or characteristics of care are important to patients. Armed with this knowledge, providers may be able to develop more effective signals to patients(15,16). The effectiveness of signals is enhanced when the signals focus on factors which patients are seeking from a provider. It is logical to conclude that providers who signal that their goods and services possess a characteristic that patients want will experience increased demand for their goods and services.

IMPLICATIONS OF AN ECONOMIC PERSPECTIVE FOR PHARMACEUTICAL CARE

Economics suggests that an efficient outcome in health care agency relationships can only be determined if there is knowledge about the nature of the provider's and patient's utility functions(13). Utility functions describe the set of parameters a consumer evaluates when making consumption decisions(2). Parameter evaluations help establish a consumer's preferences for various goods and services. A key question for pharmacy and pharmacists is which patient preferences are important for the provision of pharmaceutical care. The economic perspective suggests patients' preferences with the process of health care are very important toward achieving efficiency in health care markets(17). Thus, the focus of research could be on what, besides health, is important to patients(principals) in the provision of health care.

Trends in health care financing suggest consumers are and will be concerned with receiving care high in quality and value. Traditionally, quality in health care has been viewed from a provider perspective and has focused on technical aspects of care and has been operationalized in terms of structure, process and outcome(18). However, technical quality is an incomplete framework for describing how patients evaluate the quality of health care because patients do not have the knowledge to evaluate the quality of the diagnostic and therapeutic intervention process(19). Patients base their evaluation of quality on interpersonal and environmental factors(18). These factors have been termed expressive quality and consist, for example, of caring, professionalism and competence dimensions(19). Thus, since pharmaceutical care is grounded in interactions between patients and pharmacists, the focus of patient preference evaluation likely should be on factors relating to the expressive performance of the people(clerks, pharmacists) patients have contact with during a pharmaceutical care encounter.

The pharmacy literature contains evidence of expressive quality dimensions. The pharmacy patronage literature has addressed some expressive dimensions by using such words as reliable, prompt, friendly, pleasant, understanding, helpful and personable(20-23). Similarly the literature reporting the evaluation of patient satisfaction with pharmacy services has addressed expressive dimensions through such words as prompt, courteous, respectful, friendly, thorough, correct and accurate(24-29). The economic perspective of the principal-agent relationship in all health care markets suggest these aspects of care are important. Pharmacy researchers should continue to examine expressive dimensions of preferences for care especially as they relate to patient-pharmacist interactions and their importance in selecting individual pharmacists or developing relationships with pharmacists. These factors likely are important in the provision and outcomes of pharmaceutical care.

There are two main implications for pharmacy of addressing patient preferences for pharmaceutical care. First, matching the provision of services with patient preferences may promote more effective provision of care. A key step in this process however is the assessment of patient preferences. Pharmacy educators should heighten students' awareness of expressive dimensions of quality and their importance in patient-pharmacist interactions. Also, students should learn how to assess patients for these factors. Students also should learn to adjust their interaction style depending on patient assessment and interpretation of signals from patients regarding expressive factors.

The second implication of addressing patient preferences for pharmaceutical care is that knowledge of patient preferences may help pharmacy and pharmacists develop better signals or signaling strategies to help patients in selecting and evaluating pharmacy providers. Pharmacy researchers and pharmacists should examine the marketing literature which contains strategies for signaling to patients based on the characteristics of services deemed important to consumers(16). By assessing patient preferences for care, pharmacy and pharmacies can signal to patients that they provide elements of quality care important to patients. This may aid in generating awareness and demand for pharmaceutical care, two aspects crucial for success.

CONCLUSION

Trends in health care financing suggest patients will increase demand for health care goods and services high in quality and value. The economic perspective of the relationship between a patient and a provider in health care markets suggests that patient preferences play an important role in improving the outcomes of health care. For pharmacy, the assessment of aspects of pharmacist-patient interactions that patients most prefer is becoming more important to assure the provision of goods and services high in quality and value. Providers who are able to assess preferences, incorporate preferences in service provision and sell this type of quality likely will gain an advantage in the market.

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