PATIENT SATISFACTION/DISSATISFACTION AND POST-EXCHANGE ACTIONS IN THE HIGH-BLOOD PRESSURE PRESCRIPTION DRUG MARKET: A PRELIMINARY REPORT

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ABSTRACT

While a substantial amount of research effort has been directed at understanding consumer satisfaction in the areas of durable and nondurable products, satisfaction with health-care services clearly needs to be better understood. This paper presents an exploratory analysis of patient satisfaction/dissatisfaction and post-exchange actions in the high-blood pressure prescription drug market. Results suggest that loyalty and trust are important mediators of satisfaction with providers. However, evaluation of the manufacturer and the drug seem to be at a utilitarian level. Overall satisfaction with providers and the drug appear to be high and affective responses frequently accompanied satisfaction judgments. Finally, several approaches to dissatisfaction were mentioned including public policy approaches, complaint behavior, and switching.

INTRODUCTION

Consumer satisfaction is a concept that is now recognized as an important outcome that marketers need to monitor and affect (Westbrook, 1987; Hunt, 1977). Consumer satisfaction has implications for marketing strategy and more importantly for public policy (Andreasen, 1991). While a substantial amount of research effort has been directed at understanding consumer satisfaction in the areas of durable and nondurable products, satisfaction with services and specifically health-care services clearly needs to be better understood. Some research has attempted to examine patient satisfaction in the context of in-patient care (Barber and Venkatraman, 1986; Singh, 1989). However, very little formal work has been conducted into the area of satisfaction and outcomes in the prescription drug market.

The quality and prices of prescription drugs represent an important area of concern for the health care practitioner, consumer activist and government agencies. Recently, the Pryor Committee revealed that prescription drug prices have multiplied at three times the rate of the CPI between 1981 and 1988 (Majority Staff Report of the Special Committee on Aging, U.S. Senate, 1989, 1990). Questions about the value of prescription drugs, the reasons for soaring prices, as well as the ultimate satisfaction of the patient continue to be raised (Wolfgang, Perri, Carroll, and Kotzan, 1988).

High blood pressure medications (anti-hypertensives) are the prescription drug investigated in this study. Retail sales for high blood pressure drugs accounted for 7% of a 4.3 billion dollar market for cardiac drugs in 1990 (Glaser, 1991). Further, a majority of the hypertensive patients are the elderly (age > 65 years). The elderly represent the fastest growing segment in the United States, and it is projected that they will make up 20% of the population by the year 2010 (Tootelian, 1991). Finally, hypertension is a chronic disease, and medication must be taken on a long term basis. Thus, high-blood pressure therapy and patients' satisfaction with the therapy are an issue of concern to the health-care provider.

It is then important to formally address the issue of consumer satisfaction/dissatisfaction (CS/D) and post-exchange actions (PEA) in the prescription drug industry and to generate a

descriptive model that outlines the relationships among variables that affect patient satisfaction/ dissatisfaction and resulting post-exchange actions. The consumer research literature provides several alternative models of consumer satisfaction and variables that affect satisfaction (Oliver, 1980; Oliver and Swan, 1989). While these models provide a valuable starting point, it is important to examine if they accurately represent the process involving the prescription drug patient.

The prescription drug transaction is unique in several respects that we will elaborate upon later. Briefly, the patient is involved in a high-involvement, repeat purchase situation where he/ she does not have direct control on the choice of the drug. Further, the product is technologically complex, the disease has "silent killer" characteristics, and the patient typically does not possess enough knowledge to form expectations or judge performance of the providers and the drug.

Based on the above characteristics we suggest that the prescription drug patients fit the definition of "vulnerable consumers". Andreasen and Manning (1990), define vulnerable consumers as "those who are at a disadvantage in exchange relationships where that disadvantage is attributable to characteristics that are largely not controllable by them at the time of the transaction". They further suggest that children, the elderly, the physically handicapped, etc. would fit such a definition. We propose that in the prescription drug market, the very domain of transaction, regardless of demographic characteristics, makes the patient a "vulnerable" consumer. This aspect will be an important focus of our investigation.

As we discuss later, consumer (patient) and product (drug) characteristics in the prescription drug market are different in several other manners from consumer durables or nondurables. It is then possible that these differences could affect the consumer satisfaction process and the nature of the variables therein. As Woodruff et. al. (1990) note, the meaning of the CS/D construct and measure can be better understood by obtaining consumers' perceptions of their reactions to the product experience. Analogously, modelling the process with respect to the prescription drug patient requires a study of the experience as perceived by the patient. This paper represents an exploratory analysis of patient satisfaction/ dissatisfaction and post-exchange actions in the high-blood pressure prescription drug market.

The rest of this paper provides a brief background of the study, discusses the results of a qualitative study conducted to examine consumer satisfaction/dissatisfaction, and complaining behavior in the high-blood pressure drug market, and finally suggests some implications for further research in this area.

BACKGROUND

The consumer research literature provides several antecedents of consumer satisfaction. Most studies include expectations and performance as key variables that affect disconfirmation which ultimately affects consumer satisfaction/ dissatisfaction and related outcomes (Churchill and Surprenant, 1982; Cadotte, Woodruff, and Jenkins, 1987). Miller (1977) suggests four possible types of expectations: ideal, expected, minimum tolerable, and deserved. Thus a person experiences positive disconfirmation when performance is better than expected, negative disconfirmation when performance is poorer than expected, and confirmed when performance exactly matches expectations. Positive disconfirmation leads to satisfaction and negative disconfirmation leads to dissatisfaction.

A complementary view suggests that consumers' perceptions of inputs and outputs of a transaction dyad affect their perception of the equity in the relationship (Oliver and Swan, 1989). Thus a consumer perceiving his relative gains as being greater than or equal to those of the exchange partner should perceive fairness in the transaction, while a person perceiving his relative gains to be smaller than those of the partner should experience "distress". A feeling of equity leads to satisfaction while "distress" leads to dissatisfaction.

Dissatisfaction and/or distress could lead to further post-purchase actions such as negative word-of-mouth, complaints, brand or distributor switching, and public policy approaches. Additionally, a perception of inequity could lead to psychological equity restoration (Swan and Mercer, 1981). Psychological equity restoration refers to a process where the consumer, perceiving inequity, mentally recomputes the values of his/her outputs/inputs and the transaction partner's

output/input so as to achieve some form of "psychological equity" without a change in objective reality.

Most models of consumer satisfaction and dissatisfaction have incorporated any one of the above two theories of satisfaction or variants of the same. Some authors (Swan and Mercer, 1981; Oliver and Swan, 1989) have suggested that the two processes of disconfirmation and equity exert independent but complementary influences on satisfaction and should hence be combined in a model predicting satisfaction. Oliver and Swan (1989) found that disconfirmation complemented fairness in predicting consumers' satisfaction with an automobile sales transaction. This model could conceptually be extended to explain a patient's satisfaction with prescription drug therapy which also includes a service and product component. Recently, Pathak (1990) hypothesized a model of patient satisfaction with high-blood pressure drugs incorporating the disconfirmation as well as the equity theories of satisfaction. The chief elements of the model are shown in Figure 1.

As mentioned above, however, there are certain unique characteristics of the prescription drug patient - provider transaction that could potentially affect the variables included and the relationships posited. These include:

Nature of the Transaction. The high-blood pressure drug consumer (i.e, patient) is a consumer of services from more than one individual and of a technologically sophisticated product. The service that each patient receives essentially consists of information and counselling received from his/her physician and pharmacist. As Liechty and Churchill (1979) and Hill (1986) note, the unique characteristics of services such as intangibility and inseparability have important consequences on satisfaction judgments. Liechty and Churchill (1979) note that while a utilitarian perspective of satisfaction judgments may suffice for tangible products, the psychosocial perspective may apply in terms of the intangibles. It is also important to note that the patient is not directly involved in the choice of the product. In most cases, the patient simply purchases the recommended product and this could affect subsequent judgments of satisfaction with the purchase.

High Involvement. High-blood pressure drugs are expected to engender high involvement among patients given the high-risk nature of the disease. Most studies in consumer research have examined nondurable (low involvement) products (Olshavsky and Miller, 1972; Swan and Combs, 1976). Disconfirmation theory has not been very successful in explaining the satisfaction for high-involvement products (Oliver and Bearden, 1983, Churchill and Surprenant, 1982). Barber and Venkatraman (1986) suggest that involvement could affect the amount of post-purchase processing and thus attenuate the relationships typically posited for relatively low-involvement products.

Insurance. Most patients under treatment for high-blood pressure typically carry some form of health-insurance. Hence, price, a critical variable in consumer satisfaction/dissatisfaction judgments may not be a major explanatory variable in this context.

Given the above unique characteristics of the high-blood pressure drug market, it is important (a) to examine if and how these characteristics affect the key variables influencing the satisfaction of high-blood pressure patients and (b) to examine if models proposed to explain the consumer satisfaction process can provide a descriptively accurate account of the patient satisfaction process with a prescription drug. This study attempts to achieve the first objective while the second objective is the chief focus of another currently ongoing investigation.

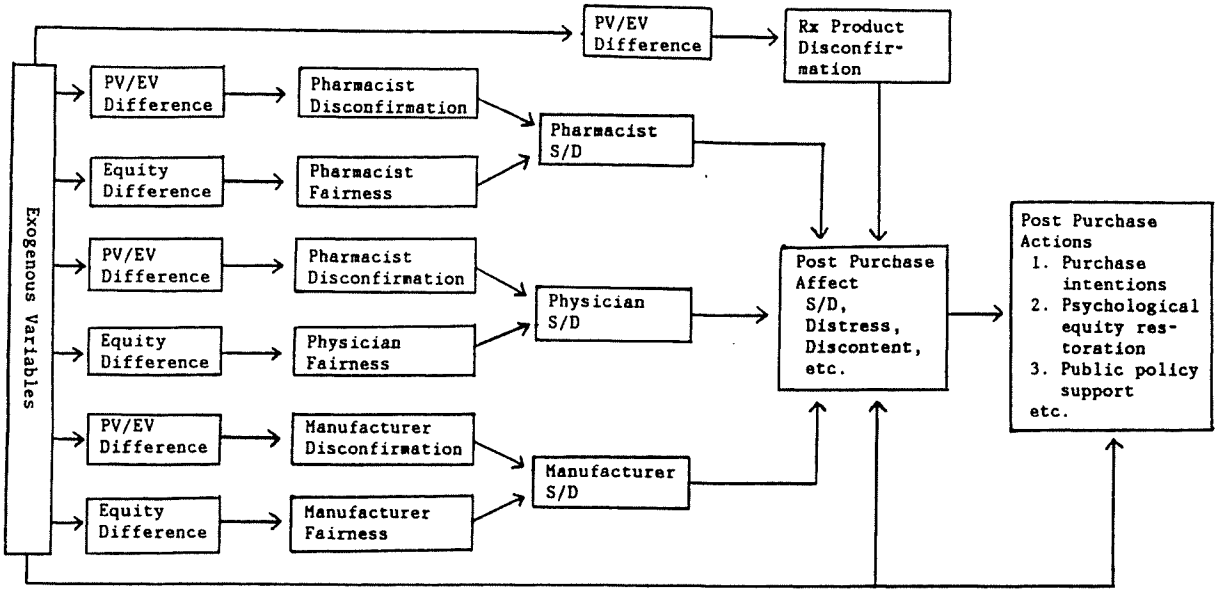
This qualitative study will attempt to examine the nature of the following variables affecting the patient's satisfaction with (a) the providers of high-blood pressure treatment (i.e, the physician, the pharmacist, and the manufacturer) and (b) the prescription drug product:

1. Expectations and performance (disconfirmation).
2. Perceptions of equity.
3. Overall perceived satisfaction.
4. Responses to dissatisfaction.

METHODOLOGY

Subjects were elderly consumers of high-blood

Figure 1
Hypothesized Model of Equity and Disconfirmation Effects on the Patient's Post Purchase Affect and Post Purchase Action Outcomes in the Prescription Drug Market



Notes:
1. EV = Expected Value; PV = Perceived Value; S/D = Satisfaction/Dissatisfaction
2. Equity Difference = (Patient's Inputs - Patient's Outcomes) - (Appropriate Exchange Partner's Inputs - Outcomes).
3. The arrow from the Disconfirmation to the S/D boxes also includes the direct effects of EV on S/D.
4. Exogenous variables include: Price/Consciousness; Product/Industry knowledge; Personal health care expenditures and budget; Demographics and personal needs.

pressure patients from two states, Ohio and Florida. Four focus groups, two in each state, with an average of 10 consumers in each group were conducted. A moderator and an assistant conducted the focus groups. The chief purpose of the focus group was to generate items for variables to be included in the model of patient satisfaction with prescription drugs (Pathak, 1990). Hence, moderators used a structured format of questions and follow-up probes in order to ensure that responses pertinent to all the variables included in the model were obtained.

The interview format originally consisted of using a matrix approach (Figure 2). The matrix consisted of questions related to each model variable on the x-axis and exchange partners (manufacturer, pharmacist, and physician) as well as the prescription drug product on the y-axis. The original intent was to question patients on all the model variables with respect to each entity on the x-axis, by turn. However, during the first focus group session it became evident that subjects were tending to describe their feelings and experiences related to each exchange partner, in terms of one model variable before proceeding to the next model variable. Hence, the format for the focus groups was changed, for the next three focus groups, from a "horizontal" investigation of all model variables with respect to each exchange partner to a "vertical" investigation of each variable across the exchange partners.

The structured format also helped minimize any possible interviewer bias between sessions. Finally, demographic variables (not discussed

Figure 2

	Expectations/ Performance	Equity/ Fairness	S/DS.	Post-purchase Evaluations	Background Information
Physician					
Pharmacist					
Manufacturer					
Drug					

here) were collected.

RESULTS

The written transcripts of the focus groups were content analyzed in order to identify key themes with respect to each of the four variables. Verbatim statements exemplifying each theme are presented and the implications of the themes in terms of the consumer satisfaction process are discussed.

Expectations and Performance

We find that patients seem to judge the providers, namely pharmacists and physicians, solely in terms of performance without explicit use of expectations. It is curious that comparison with priors does not manifest itself in any protocols related to the pharmacist or physician. A certain amount of ambiguity in judging the therapy is also seen in certain responses. Further, "trust" and "loyalty" are frequently mentioned terms with respect to the providers and patients seem to play down the negatives when their "loyalty" is high.

> "I'll bet you don't realize how much faith we put into (pharmacists)...you hand me a bunch of white pills, this looks like aspirin to me..the trust that is put into the pharmacist.."

> "I think you have to have faith in your doctor. In other words, if you think he's giving you something that isn't working for you, you better look for another doctor."

> "I take his word for it. I believe in Dr. (), I know he has done me a lot of good so I don't question him. I take his word for it."

Thus, as suggested by Barber and Venkatraman (1986) and Bolfing and Woodruff (1988), in a high involvement situation, patients' satisfaction with the "individuals" involved in providing high-blood pressure therapy seems to be directly related to performance without explicit use of expectation. Further, evaluations of physicians and the pharmacists seemed to involve the personal nature of the "individual" and these were typically followed by statements of satisfaction.

> "A very warm person, a very caring person. He has done excellent things for me. I am completely satisfied with him."

> "I am satisfied. He (pharmacist) will talk to you..if it doesn't work, he will try something else. That is what I admire about him."

> "Who wants to go to a cranky pharmacist?"

On the other hand, patients seem to use "expected" expectations (Miller, 1977) while evaluating drug products. While patients seem to leave judgments of the actual performance of the product to the physician, side-effects, which are easily discernable, seemed to affect evaluation of the product. Further, we also found that contrary to expectations, when probed, prices of drugs were frequently mentioned and were typically compared to prices paid at other stores.

> "I am not against the doctor's bill because he has a skill and he is working for that. ..I don't

appreciate it that the medicines are being priced so unfairly."

"This one lady was given this new drug and it was costing $13 a pill, then she went someplace else..she could have gotten the same thing for $4..there is a big difference."

"...there is a variation in prices of maybe $10 to $15 for 50 pills. I don't think that it is fair. I go ahead and get my prescription but like I said I am only paying $3 but still I end up paying my insurance. My insurance costs are up. You pay for it in the long run."

In sum, as Liechty and Churchill (1979) suggest, patients seem to have separate standards for evaluating the product and tangible factors versus the "individual". Moreover, even when high prices were attributed to the pharmacy, perceptions of the pharmacist were not tainted.

Perceptions of Equity

Overall, patients seem to feel they are receiving a fair deal from physicians and pharmacists as well as from drug manufacturers. In several instances, patients seem to justify to themselves any shortcomings in service, given the importance of the end result. For instance, waiting times of 45 minutes to 3 hours were justified by statements such as:

"He is a really good doctor. I can't complain about it, I don't like it but its just as fair for me as everyone else to have to wait."

"I think its a fair deal."

However, a certain amount of ambiguity in judgments of fairness was evident. When asked if they were getting a fair deal at the pharmacy, subjects responded "I hope so" "you never know" or "I feel like I do".

"..If you are able to live your life and are healthy, you are getting your money's worth I suppose. Whether you are getting the best bargain, well don't know. Like I said, it seems like (it)."

The responses of patients who perceived fairness in dealing with physicians or pharmacists providing prescription drugs suggest that, due to the technical nature of the product, such feelings of fairness may be a function of "trust". Statements such as "explains any new drug to me" and "having faith and trust" were mentioned with respect to the providers.

In terms of the price, several patients perceive that while prices paid to the pharmacy were fair, the high variability of prices among pharmacies were "not justified". While the price of the drug was indicated as being a source of dissatisfaction with manufacturers, patients indicated that a "fair" return or profit for stockholders as well as potential gains in new drug therapy due to the high cost of research and development may justify "high" prices.

"I think they are (fair) because like he said I was thinking too about how sterile they have to keep some things and how many drugs they have to handle. It is probably mind boggling."

"...And I think the research cost with that sort of research into that particular area is going to be a lot greater than the research in finding out whether a guy has ingrown toenails..."

"Now the reason the drug costs so much money is because of what is going into it."

Overall Satisfaction

Overall satisfaction with the drug and services seemed to be extremely high. Since the price factor has been removed to a large extent from the decisions, patients seem to evaluate the providers in terms of their "individual" nature and other intangibles. As discussed above, they seem relatively insensitive to factors such as waiting time, given the high-risk nature of the therapy. This is generally in agreement with Andreasen's (1985) finding that only 16.5% of the patient population felt dissatisfaction with their physician and took action. Loyalty, trust and personal factors seem to override minor considerations (Hirschman, 1970).

The verbal protocols clearly suggest that

affective as well as cognitive determinants are involved in satisfaction judgments (Westbrook, 1987). Statements such as "I really like him so I really don't have a problem," and "They will take their time to welcome you in one way or the other to be friendly," seem to suggest that affective responses may be determinants of the satisfaction process.

Responses to Dissatisfaction

While dissatisfaction appears to be low, the responses of dissatisfied patients suggest that consumers perceive several alternative responses to dissatisfaction, depending on the magnitude and locus of the problem. In cases of dissatisfaction with the manufacturer, statements such as "write to Congress" and "send it to Senate" were mentioned on a few occasions. Thus it appears that public policy approaches to dissatisfaction were considered viable options by patients. Writing to the drug company was mentioned, although it appears that patients are skeptical about the usefulness of such a response.

> "They are going to say we don't give a damn whether you buy it or not."

> "Really, I doubt if a drug company would even answer a letter."

On the other hand, when the pharmacists or varying drug prices charged by different drug stores were the source of dissatisfaction, switching to other providers was the most common response mentioned. Switching providers also seems to be a common solution in the early phases of the patient-pharmacist or patient-physician relationship. However, when loyalty for the provider sets in, patients seem to largely ignore or justify small causes of dissatisfaction.

DISCUSSION

In this qualitative analysis of patient protocols we find some interesting differences between satisfaction processes typically thought to operate for a consumer durable and for high blood pressure drugs. Importantly, patients seem to hold physicians and pharmacists on one hand and manufacturers on the other to different standards. Loyalty and trust seem to be important determinants of satisfaction with providers.

It is apparent from this exploratory investigation that the links between disconfirmation and S/D and fairness and S/D may be mediated by the emotional responses inherent in patients' evaluations of pharmacists and physicians. Evaluations of the manufacturer and drug seem to be at a utilitarian level. Thus, future work examining the patient's satisfaction process may need to consider modelling separate processes for providers versus products although they are both an integrated part of prescription drug therapy.

While affective responses seem to be accompanying satisfaction judgments, the relationship between these two variables is not clear at this time. On one hand, affect may be temporally prior and could potentially be a causal agent affecting satisfaction. Alternately, affect and satisfaction may be two dimensions that co-occur and are correlated, jointly determining post exchange actions (Westbrook and Oliver, 1991). We plan to examine this issue further.

We also found that the patient's satisfaction judgments with regard to providers seem to directly influence satisfaction, without the mediation of expectations. This is in concordance with others (Churchill and Surprenant, 1982; Tse and Wilton, 1988) who have found that for a high-involvement product, performance directly predicted satisfaction. This aspect will be further examined, in a causal sense, in the next phase of our research.

Contrary to expectations, price seems to be an important mediator of patients' dissatisfaction and post-purchase actions. Interestingly, however, concerns regarding price seem to reflect equity considerations rather than disconfirmation. This may be because, while price does not directly affect satisfaction, due to the presence of insurance, high prices or varying prices affect the patient's perception of "social justice".

An issue in the measurement of equity that will need further research is the use of specific (attribute level) measures of equity (Oliver and Swan, 1989) versus global (general) measures of equity. Following our research, we suggest that global measures of equity should be used in the present context for two reasons, theoretical and

measurement related. Theoretically, patients seem to have a general, vague knowledge of their inputs and outcomes as well as the exchange partner's inputs and outcomes in the exchange. Consequently, by using specific measures we may be forcing them to use attribute level measures that they do not seem to use in a realistic, everyday situation. On the measurement side, by using a set of specific measures, we may be liable to a missing variable bias, both in terms of the patient and the exchange partner. Thus, our measures of equity will be global in nature.

Overall satisfaction with providers and the drug seems to be reasonably high. This is an important finding given the concern with providing equitable care. We would like to note here that a majority of patients had some form of health insurance which could partially account for the high satisfaction. It may also be useful to examine if the transactions discussed here would fit the definition of "loose monopolies" (Hirschman, 1970). If they do, several public policy implications for policing of the market become relevant (Andreasen, 1991).

Several alternative responses to dissatisfaction were mentioned including public policy approaches, complaint behavior and switching. These were dependent on the magnitude of the problem. Also, problems seem to be played down in the presence of strong loyalty for the provider. This seems to reflect the psychological equity restoration process (Swan and Mercer, 1981).

In terms of patients' post-exchange actions, it is important to examine the specific causes for a particular action (or decision not to take action). From a theoretical and public policy perspective, it is essential to understand what aspects of the transaction (that lead to dissatisfaction) lead to what particular actions. This should help the health care provider as well as public policy makers in understanding complaining or non-complaining behavior better and to examine causes for non-complaining behavior.

Finally, consumers seem to expect an indifferent reaction from manufacturers as a response to their complaints. It is important to examine the pervasiveness and cause of such a phenomenon. This feeling on behalf of patients may also be leading to a bias in the quantity of complaints data (Andreasen, 1991).

The key contribution of our findings are for the next phase of our investigation. Specifically, the above findings suggest that the proposed model will bear respecification. Alternative model specifications will be examined as part the study currently in progress where data is being collected from 400, elderly, high-blood pressure patients in Ohio and Florida.

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