# COMPONENTS OF MEDICAL SERVICE USERS' DISSATISFACTION: A PERCEIVED CONTROL PERSPECTIVE

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## ABSTRACT

Studies across cultures have consistently reported significant levels of dissatisfaction among medical service users. However, there is a surprising paucity in literature dealing with the nature and structure of dissatisfaction among them. This study attempts to examine the components of dissatisfaction among medical service users. The study utilizes the tripartite characteristics of personal control (Averil 1973) to scrutinize the dissatisfactory medical service incidents. Data were collected from individuals who had experienced varying degrees of dissatisfaction with medical services. Data analysis reveals that medical users' dissatisfaction can be effectively classified into the three types of control proposed. The study also confirms that medical service users' dissatisfaction with medical services is strongly influenced by their perception of low control during the medical service encounters. Managerial implications and future research directions are provided.

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**KEY WORDS:** marketing, customer dissatisfaction, medical services, perceived control

#### **INTRODUCTION**

Ontemporary medical practitioners are under constant pressure to deal with a variety of challenges in their environment including deregulation, new technologies, skyrocketing costs, and stiff competition. Hospitals are no longer contended with their traditional role as not-for-profit organizations but have adopted business perspectives for their operation. Market-driven business models developed in commercial sectors have been actively applied to the medical industries to deliver quality service and win customer satisfaction. Patients nowadays are viewed as customers and medical service providers are required to understand and conform to expectations that their clients bring to the service encounters.

In spite of such industry-wise efforts, there is a general tendency that customers of the medical industry experience a high level of dissatisfaction with medical practices. Reports by American Customer Satisfaction Index have indicated that American consumers' satisfaction with medical services has been consistently below median among industries compared over years (Fornell et al. 1996). Such tendency of poor rating on medical services has also been observed across cultures including Canada, South Korea, Sweden, Trinidad and Tobago, Ukraine, among others (Fornell 1992; Lee 2006; Phillips 1996; O'Neil 2009; Yi et al. 1996). Medical services have several characteristics that harbor a potential of dissatisfaction among their customers. Medical services can be characterized as having credence qualities (Darby and Karni 1973), which make their customer have difficulties in evaluating the quality of services before, during, and even after the service encounter. Naturally, customers of medical services were reported to have a high tendency of experiencing powerlessness during their service encounters (Beinstock and Stafford 2006; Lee 2010). It is not a coincidence to observe research findings maintaining that medical service customers have a high propensity to experience negative emotions such as stress, anxiety, and frustration during their interaction with medical service providers (Kolodinsky Ware and Davies (1983, p. 292) summarized that "consumer behavior in the medical 1993). marketplace is substantially related to dissatisfaction with doctors and health care services."

Regardless of such a pervasiveness of dissatisfaction among medical service users, there is a surprising paucity in literature dealing with it. Generalizing findings from literature dealing with customer satisfaction, while available, to the context of customer dissatisfaction may be misleading because dissatisfaction is not simply opposite of satisfaction (Bluel 1990). Although both the credence qualities of services and the structural matters inherent in the medical industry cannot be changed, taking customer dissatisfaction as a natural phenomenon is disturbing. Dissatisfaction with medical service system is related to negative behavioral consequences including an increase in doctor shopping, searching for changes in delivery system, in addition to avoiding the health care system itself (Ware and Davies 1983). A missing piece in the literature seems to be studies focusing on identifying the nature, causes, and cures of customer dissatisfaction with medical service systems.

There are several strategies that may help medical customers overcome their negative emotions, reduce dissatisfaction, and ultimately experience satisfaction. The purpose of this paper is to propose perceived control as a critical factor affecting customer dis/satisfaction. To be specific, it proposes that one of the main causes of dissatisfaction among medical service customers is a lack of perceived control, and empirically examines the effects of the perception of control on customer dissatisfaction. The paper is organized in the following fashion. It first provides a literature review on the concept of perceived control with specific emphasis on dissatisfaction-reducing effects of perceived control. Then, it presents a set of hypotheses, followed by methodology used to test the hypotheses. The results are reported and scrutinized before the conclusions are presented.

#### LITERATURE REVIEW

Perceived control can be defined as one's perceived competence, superiority, and mastery over an environment (White 1959). Studies in environmental psychology have examined the effects of perceived control on one's stress, performance, satisfaction, and well-being in a variety of environments including workplaces, nursing homes, schools, supermarkets, and so on. One's perception of control over an environmental event is known to produce a number of positive consequences such as self-efficacy. competence, satisfaction, and psychological and physical well-being (Goldstein 1989; Greenberger et al. 1989; Tetrick and LaRocco 1987; Thompson and Spacapan 1991). On the other hand, when one feels no control in dealing with an event, one has a high propensity to experience negative consequences such as depression, burnout, helplessness, dissatisfaction, meaninglessness, and even intention to abuse substances (Greenberger et al. 1989; Melamed et al 1993; Mullarskey et al. 1997; Schat and Kelloway 2000). Literature in marketing also maintains that customers' perception of control mediates their satisfaction/dissatisfaction in dealing with professional services, crowded service environments, fitness services, and self-service technologies (Bateson 1985; Dellande et al. 2004; Hui and Bateson 1991; Lee 2008; Lee and Allaway 2002). Perceived control has been conceptualized by Averill (1973) as being composed of three interrelated beliefs: behavioral, cognitive, and decisional. In the following each type of control is reviewed in conjunction with customer dissatisfaction.

Behavioral control, the most popular conceptualization of perceived control, deals with one's ability to objectively change the nature of an impending event. When one believes that one possesses a set of response (avoid, escape, attack, withdraw, and so on) that can effectively modify the objective nature of an environment that one is dealing with, one's satisfaction with the environment is enhanced. According to this perspective, when one is capable of exercising effective influence over events, things, and persons, one deals with them with more confidence and less concern (Sutton and Kahn 1986). On the other hand, when one feels being incapable of making influences on an event, one has a high propensity to experience role ambiguity, role conflict, helplessness, and dissatisfaction (Barling and Kelloway 1996; Litt 1988; Schat and Kelloway 2000). Thus, a lack of opportunity to exercise influences on one's environment is likely to foster a league of negative consequences including dissatisfaction. For example, Langer and Rodin (1977), in their nursing home experiment, have demonstrated the importance of having an

opportunity to make changes in one's environment to one's physical and psychological well-being in that environment. In this context, when a customer of a medical service feels that s/he does not possess any means to take actions against the medical services rendered for them but take whatever is provided by the medical service practitioners, s/he may have a high potential to experience negative emotional consequences including dissatisfaction.

Cognitive control deals with one's perception that one understands and predicts the nature of an impending event. Averill (1973, p. 287) specified that cognitive control is "the way in which an event is interpreted, appraised, or incorporated into a cognitive plan." Studies have reported that it is not necessarily the actual ability to influence (*i.e.*, behavioral control) but a thorough understanding and predictability of the event that makes one to become less averse to a stressor (Miller 1979; Seligman and Miller 1979). Langer and Saegart (1977), in a seminal study involving a crowded supermarket setting, observed a significantly high level of perceived crowdedness, difficulty in shopping, and dissatisfaction with the shopping experience from a group that was not informed about the crowded condition of the supermarket before their shopping, compared to a group that was informed regarding the condition prior From this perspective, one's perception of cognitive control is to their shopping at that supermarket. largely dependent upon the extent to which one feels that one is adequately informed regarding an event that s/he is facing. When one believes that one has a thorough understanding of an impending event, one tends to deal face it with less stress. On the other hand, when one is presented with a potentially stressful event without enough information, one is likely to experience a significant amount of stress, negative emotions, and frustration (Langer and Saegart 1977; Spada et al. 2008). In a medical service encounter, when a customer feels that s/he is presented with the service without being informed adequately, s/he has a high potential to experience risk and stress before, during, and even after the service, making his/her dissatisfaction with the service highly likely.

Decisional control can be defined as one's generalized expectations that one can gain a personally desirable outcome after dealing with an event (Chapman et al. 1985; Skinner et al. 1988; Thompson et al. 1993). In this perspective, control is conceptualized as one's expectation that one's action would produce a personally preferable outcome (Kelley 1955). Even in a situation when neither a set of choices nor information (*i.e.*, neither behavioral nor cognitive control) is provided, one may still maintain a sense of control and perceive less stress when one is certain that one would eventually gain a positive outcome from that situation. For decisional control, Averill (1973, p. 300) explained that "it is not the objective range of choices which determines whether or not a person experiences... control; rather it is the degree to which he agrees or identifies with the choices he does have, no matter how limited." A person's high expectancy for positive outcome from one's action is known to motivate one to exert more cognitive effort in dealing with it (Hill et al. 1987). On the contrary, when one is in a situation where one's expectancy to gain personally desirable outcome is low, s/he has a high potential to experience meaninglessness, stress, frustration, and eventually dissatisfaction with the situation (Boech 1976). Similarly, in a medical service encounter, a customer is likely to have a high chance of experiencing dissatisfaction when his/her expectancy to get the desired medical treatment is low.

# **HYPOTHESES**

This study posits that a high level of customer dissatisfaction with medical services is likely to be associated with the lack of perceived control among medical service users. Characterizing a medical service encounter as an involving, and potentially stressful event, the study attempts to examine the role of perceived control in cultivating customer dissatisfaction. Adopting the tripartite characteristics of perceived control proposed by Averill (1973), a set of hypotheses has been developed to investigate the effects of each type of perceived control on customer dissatisfaction.

Perception of cognitive control over an event essentially deals with the extent to which one understands and predicts the nature of the event. In a service encounter, cognitive control is perceived when we are knowledgeable about the way the service is delivered, and are thus able to anticipate the personal benefits and responsibilities associated with it. Service customers generally prefer to know in advance what they are buying and surprises and uncertainty are not popular (Lovelock 1983). When a customer feels that s/he is inadequately informed about the service being rendered, the customer is not likely to feel cognitive control. In the context of medical services, because the service is rendered by certified professionals with expertise, skill, and experience, most customers would have limited capability of fully understanding medical practices. When a customer has unclear understanding of the specific nature of services during a service encounter, that customer has a high potential to experience dissatisfaction with the services rendered (Surprenant and Solomon 1987). In dealing with a potentially stressful event, one's perception of threat is escalated when one believes that one has been inadequately informed of how to meet the demands caused by the event (Lazarus 1999; Vollrath and Torgerson 2000). Thus, one's inability to develop understanding and predictability (*i.e.*, cognitive control) about the medical services may be one of the main causes of dissatisfaction among medical service customers.

Hypothesis 1: The lower the perception of cognitive control, the greater the customers' dissatisfaction will be.

Behavioral control is perceived when we believe that we are able to exercise influence on the way we interact with an event, which allows us to modify its objective nature (Averill 1973). In dealing with a medical service, a customer may perceive behavioral control when s/he is provided with an opportunity to determine/design the service for her/him rather than uniformly take what is offered by the service provider. In most medical service encounters where medical doctors are under the pressure of processing patients for the sake of operational efficiency, customer's individual preferences are not highly regarded during the service procedure. Because customized offerings, in general, have a positive influence on both perceived quality and satisfaction (Naisbitt 1985; Pine 1993; Vavra 1992), a lack of behavioral control (*i.e.*, a sense of inability to incorporate one's preference into the service interaction) during the medical service encounter is likely to increase the likelihood of fostering dissatisfaction among medical service users .

Hypothesis 2: The lower the perception of behavioral control, the greater will the customers' dissatisfaction be.

People perceive decisional control in dealing with an aversive stimulus when they expect that their action in dealing with that stimulus will result in personally desirable outcomes (Averill 1973; Boech 1976; Kelley 1955). Within a context of medical service encounters, decisional control is likely to be perceived among customers when the use of the medical service is expected to result in personally desirable benefits. When a medical service is evaluated as having personally desirable properties, a patient is likely to sense the instrumentality belief which is known to have a positive influence on one's satisfaction (Gutman 1982; Speng and Olshavsky 1993). On the other hand, when one is not convinced of the usefulness of a medical service (*i.e.*, lack of decisional control), s/he may neither be motivated to exert cognitive effort in learning it nor be willing to cooperate with requests from the service provider. In such a context, the customer is likely to have a higher chance of experiencing dissatisfaction.

Hypothesis 3: The lower the perception of decisional control, the greater the customers' dissatisfaction will be.

#### **DATA AND METHODOLOGY**

Data for this study were collected via a self-reported questionnaire administered to medical service

customers in Korea. Participants of the study were selected from medical service users who had experienced dissatisfaction with a medical service practice during the last year. The questionnaire was composed of three sections: independent measures (*i.e.*, perception of each types of control), dependent measures (*i.e.*, dissatisfaction), and demographics. A seven-point Likert scale was used as a response category for independent measures. Cognitive control was measured by using a five-item scale, which includes the medical service customers' understanding, capability of predicting, familiarity with the medical service procedure, and ability to tell strengths and weaknesses of the medical services providers. Behavioral control was incorporated into the questionnaire by using a five-item scale that includes the ability to exert influence on the service procedure, the availability of choice in service selection, the availability of exercising influence on administered service, and the availability of trying out services before taking them. Decisional control was measured by a five-item scale, addressing the desirability of being served by the service provider, perceived benefits of the medical services, appropriateness of costs, and overall efficiency. The dependent measure (*i.e.*, dissatisfaction) was measured by using a 4-point scale ranging from 1 (not dissatisfied at all) to 4 (extremely dissatisfied).

		Frequency	Percentage
Gender	Male	70	49.6
	Female	71	50.4
Age	25 and younger	28	19.9
e	26-40	60	42.6
	41-55	35	24.9
	56 and older	18	12.8
education	high school graduate or less	38	26.9
	Some college education	34	24.1
	College graduate	60	42.6
	Postgraduate education	9	6.4
incolme	Less than \$20,000	40	28.4
	\$20,000 - 49,999	76	53.9
	\$50,000 - 99,999	15	10.6
	\$100,000 and over	4	2.8
	Missing	6	4.3

A total of 141 useable responses were collected. Characteristics of the survey participants are summarized in Table 1. A review of demographic characteristics of the sample was performed by a hospital administrator who confirmed that the sample appropriately represented the medical service users.

# RESULTS

A preliminary data analysis was conducted to examine the measurement properties of scales used in this study. Measurement properties were evaluated by examining reliability, convergent validity and nomological validity. Reliability of the scale for cognitive control, behavioral control, and decisional control was 0.74, 0.76, and 0.80, respectively, deemed to be appropriate for an exploratory study (*cf.* Nunnally, 1967). One item pertaining to the behavioral scale was removed because it was cross-loaded over both behavioral control and decisional control. The remaining items of each construct had significant factor loadings greater than 2, indicating significant convergent validity (Anderson and Gerbing 1988). Constructs used in this study were estimated to be consistent with pertinent theories and findings in existing marketing and psychology literature, as evidenced by the significant correlations among the three independent variables. In summary, the measures used in this study were deemed to have adequate measurement properties for theory testing. For the hypothesis testing, average scores of items making up the constructs were used. The results of hypotheses testing are summarized in Table 2.

	Standardized Beta (T)	Hypothesis
cognitive control	-0.323 (-3.56)*	supported
behavioral control	0.327 (3.28)*	not supported***
decisional control	-0.211 (-2.15)**	supported
adjusted r <sup>2</sup>	0.37	11

\*: p < 0.01 \*\*p < 0.05 \*\*\* statistically significant, yet the direction is opposite

Table 2 shows the regression estimates of the equation:

Dissatisfaction =  $\beta_0 + \beta_1$ (Cognitive Control) +  $\beta_2$ (Behavioral Control) +  $\beta_3$ (Decisional Control). (1)

Ordinary Least Squares estimates were obtained. The results are presented in Table 2. The first figure in *Standardized Beta* column represents the standardized beta of each independent variable while the figure in the parenthesis shows the *t*-statistic. The last column presents the result of the hypothesis testing. The signs of \* and \*\* indicate the significance of the *t*-statistic at .01 and .05, respectively.

The results imply that dissatisfaction experienced by medical service customers was significantly affected by the lack of both cognitive  $(H_1)$  and decisional control  $(H_3)$ . Surprisingly, their dissatisfaction was negatively affected by their perception of behavioral control  $(H_2)$ . Although all three types of perceived control are known to reduce stress dealing with a stressful event, the regression analysis suggested that the data failed to support that behavioral control has a significant influence on a customer's dissatisfaction with medical services.

Table 3: An Examination of Group Difference on Dissatisfaction and Perceived Control

	Gender			Income		
	Male	Female	( <i>t</i> )	Low	High	<i>(t)</i>
dissatisfaction	2.46	2.44	(.17)	2.49	2.31	(.98)
cognitive control	3.99	3.72	(1.59)	3.84	3.80	(.15)
behavioral control	3.37	3.56	(-1.02)	3.53	3.24	(1.12)
decisional control	3.45	3.47	(08)	3.53	3.04	(1.84)

This table shows an examination of group differences on dissatisfaction and perceived control.

To further scrutinize the nature of the dissatisfaction, two waves of *t*-tests were additionally performed to see if there were any differences in terms of dissatisfaction, cognitive control, behavioral control, and decisional control across important demographic variables such as gender and income (Table 3). As expected, there were no meaningful differences between male and female users, nor were there discrepancies between high and low income individuals in terms of both dependent and independent variables, indicating that both the extent of dissatisfaction and the perception of control were homogeneous across the groups. Thus, the findings of the study can be generalized into a larger population with less restriction in terms of demographic variables.

#### DISCUSSION

The findings of this study suggest that perceived control is an important factor in affecting the extent of dissatisfaction. A questionnaire survey involving those who have experienced dissatisfaction with their medical service providers reveals the significant influence of perceived control on their dissatisfaction. Results of the regression analysis indicate that the low level of perceived control cultivates dissatisfaction among medical service users. This finding is consistent with literature in psychology that notes the mediating role of perceived control in dealing with a potentially stressful event.

As far as the effects of the three types of perceived control on dissatisfaction are concerned, cognitive control and decisional control, but not behavioral control, were found to have significant influences. The most important control factor affecting dissatisfaction is found to be the cognitive control. The medical service users were found to be concerned about receiving adequate information before they receive the service; otherwise the extent of their dissatisfaction would go up. In addition, decisional control is found to be an important variable affecting the extent of dissatisfaction. The mindset that one is not likely to receive personally desirable service seems to lead one to indeed experience dissatisfaction.

Behavioral control, one's belief that one can effectively modify the nature of the event, however, was found to have a negative influence on customer satisfaction. The regression analysis indicates that one's perception of behavioral control increases the extent of one's dissatisfaction with medical service practices. This phenomenon can be interpreted as heightening behavioral control (*e.g.*, asking them to choose one among alternative means to obtain the medical service, inviting patients' opinion on selecting the type of medical services, and so on) makes one feel uncomfortable and dissatisfied. In a medical service encounter, the availability of a large choice of assortments may have little to do with a customer's sense of control, confidence, and satisfaction (Chernev 2003; 2006).

# **CONCLUDING COMMENTS**

The medical service sector is going through a significant transformation as medical service users are viewed as customers, and their satisfaction becomes an important strategic goal. Regardless, research findings consistently indicate that customers of medical services have a tendency of experiencing dissatisfaction. Such a tendency of dissatisfaction with medical services is known to result in behavioral consequences that are not desirable either personally or socially. While seemingly important, there has been limited attention in literature addressing customer dissatisfaction in medical services sector. This research represents a response to such needs. The significant relationship between perceived control and dissatisfaction among medical service users should provide important managerial implications and an impetus for future research. Dissatisfaction experienced by medical service customers was found to be largely affected by the lack of cognitive and decisional control. Administrators of medical service arrangements enhancing perceived control among medical service users.

Findings from this study would suggest several research venues. First, it would benefit to study strategies that medical service users may employ to reduce their chance of experiencing dissatisfaction. Research pursuits for identifying factors enhancing perceived control among medical service users are highly expected. Second, it would be interesting to study coping strategies adopted by medical service users before and after experiencing dissatisfaction. Third, a more thorough understanding of the role of perceived control and dissatisfaction is likely to be achieved by incorporating the service providers' perspectives. Finally, there is a need to incorporate the interaction among goal attainment, perceived control, and dissatisfaction. Just as the fairness of officiating in a ball game is perceived differently whether one's team has won or lost, the effect of the lack of perceived control on customer dissatisfaction may be escalated when a customer did not get the desired treatment or vice versa.

In conclusion, this article presents a perspective in diagnosing dissatisfaction involving medical services. Although the literature on services marketing has made significant progress over years in furthering our understanding on service exchange, dissatisfaction among medical service users has been receiving limited attention. There are high expectations of future research that would enhance our understanding of the psychology, behavior, dis/satisfaction among medical service users.

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