Asia-Pacific Journal of Business (아태비즈니스연구)
Vol. 13, No. 3, September 2022 (pp.19-34)
https://doi.org/10.32599/apjb.13.3.202209.19

APJB
ISSN 2233-5900 (Print)
ISSN 2384-3934 (Online)

Effects of Perceived Control upon Role Performances among Healthcare Service Customers

Jung-Ki Lee[a]

[a] College of Global Business, Korea University, South Korea

Received 09 August 2022, Revised 21 September 2022, Accepted 28 September 2022

Abstract

Purpose - The purpose of this study is to examine whether a psychological concept enhances healthcare users' service experience. Specifically, the study proposes and empirically examines a model of perceived control in which the user's sense of control is postulated as exerting positive influences upon his/her motivation, self-efficacy associated with his/her role as a patient, and satisfaction with his/her medical service experience.
Methodology - Data were collected by a professional research company, using an online survey method. Participants of the study included adults nineteen years or older who had visited a medical service institute at least once during the previous one-year period. For the test of the research hypotheses, structural equation modeling using AMOS was used.
Findings - Findings of this study denote a unique insight into the users' comprehension of medical service experiences and their behaviors. First, the concept of perceived control is identified as a factor that enhances the quality of individuals' medical service experiences. A sense of control directly influences medical users' self-efficacy to comply with doctor's recommendations, their motivation to comply with doctor's recommendations, and their satisfaction with the medical service experience. Second, one's perceived self-efficacy is found to exert positive influences upon both motivation and satisfaction. Third, one's motivation to comply with the doctor's recommendation is found to exert a positive influence upon one's satisfaction. Additionally, perceived control is found to exert an indirect influence upon medical service users' satisfaction through the mediation of both self-efficacy and motivation.
Research Implications - The findings of the study support the notion that perception of control among medial service users enhances their service experience as patients. The main thrust of this study suggests that it is necessary for healthcare practitioners to consider implementing service encounter strategies that purposefully enhance the sense of control among their patients. The identification of significant inter-relationships among perceived control, motivation, self-efficacy, and satisfaction among medical service customers should also serve as a meaningful seed for further research pursuits.

Keywords: Motivation, Perceived Control, Satisfaction, Self-Efficacy, Services Marketing
JEL Classifications: L84, M31, M39

Ⅰ. Introduction

Customer experience has been recognized as a concept of utmost importance in recent services marketing literature. The process a customer goes through in a service environment has been described as the customer journey, and the quality of one's overall experience during

[a] Corresponding Author, E-mail: jungkilee@korea.ac.kr

the journey is proposed to be a key element influencing one's satisfaction with both the individual service encounter and his/her relationship with the service provider (Becker and Jaakkola, 2020; Lemon and Verhoef, 2016). As in other services, the quality of a customer's experience in the medical service is significantly affected by his/her own role performances during the service production process. For example, individuals receiving clinical treatments for cancer, diabetes, obesity, smoking/drug addiction, kidney troubles, skin troubles, and so on, perform their roles by complying with medical professionals' recommendations regarding what medicine to take, how to exercise, what to do, what to eat, and so on. A customer seeing a doctor, therefore, is in a position of co-creating service outcomes and the success/quality of his/her healthcare experience is significantly affected by his/her role performances. Unfortunately, medical professionals rate their patients' role performances as subpar and denote that one of the most challenging parts of their practices is motivating patients and acquiring their compliance with the medical directives deemed necessary (Dellande, Gilly and Graham, 2004). When it comes to the enactment of patient roles, many individuals seem to have a passive, rather than eager, attitude.

From a customer's perspective, the medical service encounter is a stressful event. The high credence qualities of medical services make most individuals experience difficulties in evaluating service quality in a detailed and objective manner (Arasli et al., 2008). Due to the technicality and complexity associated with medical services, healthcare customers tend to have trouble in evaluating the services prior to, during, and even after service encounters (Eleuch, 2011). Consequently, medical service users tend to fail to form definite opinions about the services that they just received (McAllister and Dearing, 2015). Because one is placed in a position of facing a highly involving personal matter (i.e., one's health) under a high level of ambiguity, a medical service encounter has been characterized as a stressful event harboring helplessness, strain, anxiety, and powerlessness (Bienstock and Stafford, 2006; Kolodinsky, 1993; Lee, 2010). When a person is in such a vulnerable position, s/he tends to fail to establish an adequate level of self-efficacy and motivation to perform the necessary actions conducive for him/her to attain his/her goal (i.e., health) and experience satisfaction (Bugantal and Lewis, 1999; Maddux and Gosselin, 2003; Vogus and McClelland, 2016). The most worrisome fact is that dissatisfaction with medical services tends to lead individuals to not only diminish their interests in continuing further medical assistance but also to stop visiting the medical service provider (Zanbelt et al., 2007). The prevalence of the public's unfriendly attitude toward the medical services sector is mirrored in statistics such as the American Consumer Satisfaction Index, which has consistently reported that the US consumers' satisfaction with hospital services is below the average when compared with other industries over the past two decades (www.theacsi.org). Bendapudi et al. (2006), in this regard, pointed out the pervasiveness of the public's negative perception toward the medical services sector and called for research in the area. While the consumer's unfavorable attitude toward medical services is an extensive and persistent problem, there is a surprising paucity in the literature that address the issue. Puting all together, customer experience in the healthcare services industry is unique as customers have a high potential to feel stress, anxiety, and even powerlessness, making them become unmotivated and incompetent for the roles that they are expected to enact as patients. A new, fresh insight addressing alternative mechanism that would enhance their role performance, satisfaction, and overall experience is highly needed.

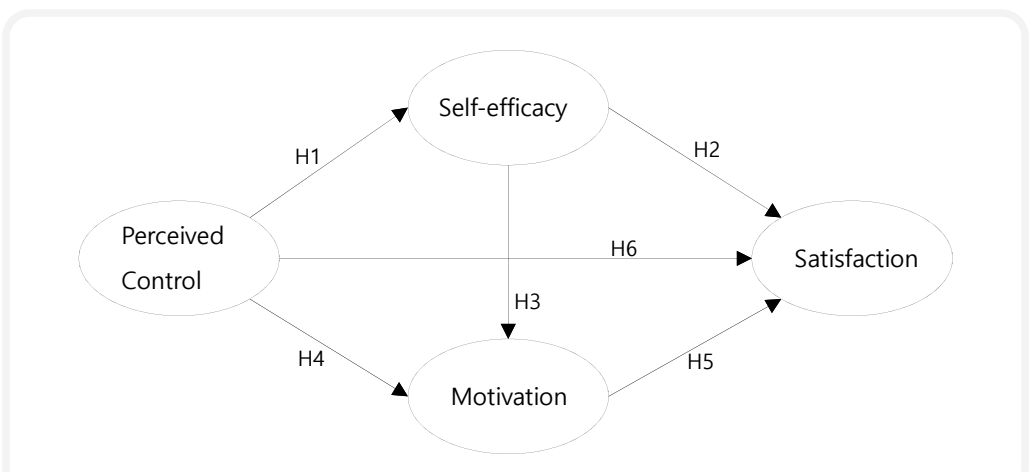
Studies in psychology have reported that an individual's perception of control has many desirable consequences when s/he is dealing with a challenging event. When faced with a poten-

tially stressful event, those who believed that they had control in the situation were reported to maintain a high level of alertness, motivation, efficacy, and even satisfaction, compared to those who felt they did not have such control (Schatt and Kelloway, 2000; Thompson and Spacapan, 1991). Such positive consequences mediated by perceived control have been observed in studies involving a variety of contexts, such as nursing homes, restaurants, supermarkets, bars, and online shopping (Baum and Weiss, 1987; Chipperfield et al., 2004; Hui and Bateson, 1991; Infurna and Gerstorf, 2014; Langer and Rodin, 1976; Lee and Allaway, 2002). This study is inspired by such efficacy- and motivation-enhancing capabilities of perceived control demonstrated in psychology and marketing. The purpose of this study is to propose and empirically examine perceived control as a factor that has the potential to enhance medical service users' motivation and self-efficacy to comply with recommendations suggested by medical professionals, which in turn would improve their satisfaction with the service experience. Specifically, the study proposes and investigates a model of perceived control in which the user's sense of relative control is postulated as exerting positive influences upon his/her motivation, self-efficacy associated with his/her role as a patient, and satisfaction with his/her medical service experience. Findings of the study are expected to provide unique insights into the understanding of consumer behaviors in the medical services sector.

II. Research Background and Hypotheses

As an attempt to further our understanding about the customer experience, this study proposes and examines a research model which postulates healthcare service users' perceived control as a factor that has high potential to affect the quality of their role performances during the service encounter. Specifically, the study postulates that a medical service user's perceived control has both direct and indirect positive influences upon his/her self-efficacy, motivation, and satisfaction with his/her healthcare services. The research model and hypotheses are provided in Figure 1.

Fig. 1. Effects of Perceived Control upon Role Performances among Healthcare Service Users



Perceived control, also known as personal control, has been defined as one's perception of competence, mastery, or superiority over an event (White, 1959). Perceived control has been reported as a factor that meaningfully mediates one's satisfaction with a situation in which one faces a potentially stressful event. In empirical studies involving hospitals, crowded supermarkets, nursing homes, and many other contexts, individuals who perceived control in the study's environment reported to have higher levels of self-efficacy and satisfaction than those who felt that they did not have such control (Goldstein, 1989; Thompson & Spacapan, 1991). Furthermore, those who felt they had control in an environment reported less stress, burnout, and helplessness (Wall et al., 1996; Schat & Kelloway, 2000). One of the main thrusts in these studies is that an individual's perception of control is instrumental for him/her to experience improved psychological well-being with less stress.

Among several alternative perspectives regarding the antecedents for one to experience control (e.g., Averill, 1973; Skinner, 1996), the relative control theory (Blau, 1964; Copeland, 1994) is highly relevant to the current study, as it addresses social exchange contexts such as doctor-patient relationships. According to this viewpoint, an individual feels control in dealing with others when s/he experiences a sense of relative dominance by possessing valued resources upon which others are dependent. Blau (1964, 108) explained that "a person who gives others valuable gifts or renders them important services makes a claim for superior status by obligating them to himself." The asymmetry of valued resources makes one perceive dominance while others may experience subordinacy (Conway et al., 1999). In typical medical service encounters, doctors are in a position of claiming relative power, as they possess resources such as knowledge, expertise, and licenses, whereas patients are dependent upon the doctor's resources. The power-dependence in the doctor-patient dyad fosters behavioral adjustments. A patient's comprehension of the power disparity in favor of the doctor may make him/her not only sense the subordination but also recognize the necessity to modify his/her behaviors deemed to be appropriate for that circumstance (Lee, 2010). Behavioral modifications of patients include guessing the doctor's mood using observable cues (Stevens and Fiske, 2000), avoiding communicating negative emotions (Conway et al., 1999), and proctoring the impressions that doctors may make of them (Copeland, 1994). Unfortunately, the perception of power inferiority and the subsequent enactment of behavioral modifications are stressful. Boulding (1989, 53) has explained that it is necessary for the high-power party to comprehend the need of the lesser power holder because human beings, unlike rocks, prefer to "answer back, fight back, obey or disobey, argue and try to exercise power back to the other." Such power disparity in the doctor-patient dyad may be one of the most overlooked aspects of patient dissatisfaction.

While the patient's perception of power inferiority may be un unavoidable structural matter in a medical service encounter, undesirable consequences stemming from such power disparity may be significantly lessened by purposefully enhancing the patient's sense of control. According to the concept of constructive power balancing (Wilmot and Hocker, 2001), the power holder may intentionally enhance the lesser power holder's sense of control for the sake of establishing constructive collaboration between them. In the context of patient-doctor dyads, patients may have a sense of control when they feel that they are in a position of actively influencing their healthcare-related matters, rather than merely passively taking the doctor's directives. Langer and Rodin (1976), for example, reported that nursing home residents who had behavioral choices (i.e., making influences in the nursing home rules and policies, small decisions and responsibilities for their own rooms, etc.) showed a significantly higher

level of satisfaction than those who did not have such behavioral choices. When a nursing home resident believed that decisions associated with his/her healthcare matters were mostly up to him/her, rather than others, including the medical personnel, the resident felt a sense of control, became more cooperative to requests from service personnel, and eventually experienced satisfaction. On the contrary, those who felt that they were not allowed to make any decisions and merely received the nursing services rendered by the medical staff, reported that they did not feel control, became inactive, and had a high likelihood of feeling aggravation and dissatisfaction with the nursing homes (Langer and Rodin, 1976). Lian et al. (2022), in a recent article, also has denoted the importance of patient-centered care with a recognition that shared decision making ideal in clinical settings. Similarly, Thomas, Bass, and Siminoff (2021) suggested acknowledging patient autonomy and expanding the practice of shared decision making for medical professionals. Indeed, it is instrumental for a medical service provider to enhance the sense of control among his/her patients to gain their compliance and cooperation.

A patient's perception of control during the medical service process is likely to have several positive consequences. First, one's perception of control may have a significant influence upon his/her self-efficacy associated with healthcare services. Self-efficacy refers to an individual's optimistic belief about his/her competence and effectiveness in attaining a desired goal (Bandura, 1977). Studies in psychology and business have reported that those individuals who maintain a sense of control in an environment tend to develop optimistic thinking about themselves in terms of their roles, competence, and performances (Bandura, 2000; Litt, 1988; Stajkov and Luthans, 1998). When one believes that one has control and one's choice/action makes the difference, one is likely to engage in an action to organize necessary information and execute courses of action required to attain goals in the environment. Such a relationship between perceived control and self-efficacy may also be observed in the medical services context. Based upon this reasoning, the following hypothesis is developed.

H1: A medical service user's perceived control positively affects his/her self-efficacy to comply with the doctor's recommendations.

An individual's sense of self-efficacy in dealing with an event may have a positive influence upon his/her satisfaction with the experiences associated with the event. Self-efficacy, the optimistic belief that one can carry out effective and appropriate actions, has been reported to serve as a meaningful mediator of health outcomes. Reubin et al. (1996), for example, reported that those who maintained self-efficacy for their healthcare matters tend to adhere to recommendations from physicians, giving them a better chance to attain desirable health outcomes. Furthermore, Molina et al. (2014) found that women with higher self-efficacy reported greater satisfaction with their health care than those who had low self-efficacy. Thus, those who have adequate self-efficacy are likely to be more persistent in following doctor's recommendations and have higher chances to experience satisfaction with their health care services. Based upon this reasoning, the following hypothesis is formulated.

H2: A healthcare service user's self-efficacy positively affects his/her satisfaction with the medical service experience.

An individual's perception of self-efficacy in dealing with an event is also likely to serve as an antecedent to developing motivation to perform actions associated with the event. Motivation refers to a state that guides one's behavior toward a goal (Bayton, 1958; MacInnis et al., 1991), and is generated while one assesses and compares one's current situation with a desired situation (Austin and Vancouver, 1996; Powers, 1991). When the gap between the current and desired situation is perceived to be large, one's motivation becomes high, causing one to exert a higher level of cognitive processing toward a task associated with goal attainment (Park and Mittal, 1985). Prior to forming motivation, however, individuals need to build up sufficient self-confidence or assurance in their ability to successfully perform necessary actions (Vancouver et al., 2002). One's self-evaluation regarding the capability of performing needed actions (i.e., self-efficacy) is known to affect one's motivation, such as how much effort s/he will spend, and how long s/he will persist (Bandura and Schunk, 1981). Therefore, in the medical services context, one's self-efficacy may serve as a prerequisite for one to be motivated to follow medical directives recommended by doctors. Based upon this, the following hypothesis is structured.

H3: A healthcare service user's self-efficacy positively affects his/her motivation to comply with the doctor's recommendations.

Perception of control among patients may also have a positive effect upon their motivation to comply with the medical directives suggested by healthcare professionals. One's perception of control in dealing with an event is reported to have a positive influence upon one's self-confidence, which, in turn, heightens one's motivation to engage in an action to proactively deal with the event (Jewell and Kidwell, 2005). When a patient feels a high level of control, s/he is likely to have high self-confidence in his/her ability to successfully achieve the desired goal, and such confidence would make him/her become more motivated and goal directed. Based upon this reasoning, the following hypothesis is formed.

H4: A healthcare service user's perception of control positively affects his/her motivation to comply with the doctor's recommendations.

An individual's motivation is likely to make positive influences upon his/her likelihood of experiencing satisfaction. Once motivated, individuals tend to become more vigilant, focused, and goal oriented (Bandura, 1998). Such a mindset is conducive for one to attain the desired goal and experience satisfaction in an environment. Furthermore, patients with high motivation tend to be more willing and faithful in following doctors' directives, and further, they may become more appreciative for the doctors' services (Lim and Tang, 2000). Thus, those who maintain a high level of motivation in an environment may have a higher chance to experience satisfaction from that experience. Based upon this reasoning, the following hypothesis is developed.

H5: A healthcare service user's motivation positively affects his/her satisfaction with the medical service experience.

Additionally, one's perception of control during the medical service encounter may positively affect one's satisfaction with the service experience. Studies in psychology have consistently

reported that an individual's perception of control has positive influences upon his/her physical and psychological well-being (Tetrick and LaRocco, 1987; Wall et al., 1996). Similarly, a league of studies in marketing have reported that consumers with behavioral options (e.g., return or keep, move or stay, unsubscribe or subscribe, and so on) have a higher likelihood of experiencing satisfaction with their purchase experience than those who did not have such choices in contexts, such as crowded bars and banks (Hui and Bateson, 1991), fast food restaurants (Ward and Barnes, 2001), online shopping (Lee and Allaway, 2002), and service recovery situations (Guo et al., 2016). Moreover, an individual's perception of control is found to exert positive influences upon his/her motivation, emotional valence, and satisfaction (Hui and Bateseon, 1991; Schat and Kelloway, 2000). Intriguingly, the mediating role of control upon satisfaction is found to be more salient when the service is of more importance than when it was of minor importance (Chang, 2008). Considering that medical service encounters address one of the most important matters for an individual (i.e., health), the influence of one's perception of control upon his/her satisfaction is likely to be highly prominent in medical service encounters. Thus, the following hypothesis is formed.

H6: A healthcare service user's perception of control positively affects his/her satisfaction with the medical service experience.

From an alternative perspective, a medical service user's satisfaction with the healthcare experience may be manifested through a mediation mechanism among perceived control, self-efficacy, and motivation. After all, an individual's perception of control alone may not be sufficient for him/her to experience satisfaction with the medical service. Earlier studies investigating the effects of perceived control upon satisfaction have concluded that more control is not always valued and appreciated. For example, when presented with too many choice options in a decision-making situation, consumers expressed that they were overwhelmed and that they experienced choice overload, which did not make them feel control, but rather, confusion and frustration (Diehl and Poynor, 2010; Moligner et al., 2008). Similarly, a healthcare service user's perception of control alone may not be sufficient for him/her experience satisfaction. It would be reasonable to presume the existence of mediating variables through which one's perceived control makes indirect influences upon his/her satisfaction with the medical service. Specifically, an individual's sense of control may exert indirect influences upon his/her satisfaction through the mediation of his/her belief that s/he is competent and effective in attaining the goal (i.e., self-efficacy: H7a), his/her state of mind which would guide his/her behavior toward the goal (i.e., motivation: H7b), or both self-efficacy and motivation (H7c). Based upon this reasoning, the following hypotheses dealing with mediation effects have been developed.

H7a: A healthcare service user's perception of control exerts a positive effect upon his/her satisfaction with the medical service experience through the mediation of self-efficacy.

H7b: A healthcare service user's perception of control exerts a positive effect upon his/her satisfaction with the medical service experience through the mediation of motivation.

H7c: A healthcare service user's perception of control exerts a positive effect upon his/her satisfaction with the medical service experience through the mediation of both self-efficacy and motivation.

Ⅲ. Methodology

Data were collected by a professional research company, using an online survey method. Participants of the study included adults nineteen years or older who had visited a medical service institute at least once during the previous one-year period. The study's questionnaire starts with a question asking respondents to identify their primary medical doctor from whom they receive healthcare services most of the time. Respondents, after specifying their primary medical doctor, were told to evaluate that particular doctor throughout the survey. The questionnaire was made up of five parts, which included question items dealing with the medical service user's perceived control, perceived efficacy to comply with the doctor's recommendations, motivation to comply with the recommendations, satisfaction with the medical service experience, and demographic questions. For each construct presented in the research model, a seven-point Likert scale was used. The measures of the study were mostly adopted from relevant literature and revised to fit the context of the current study. Perceived control was assessed by a three-item scale addressing the relative control sensed by respondents during their interactions with medical doctors (Gotlieb et al., 1994; Lee, 2010). The perceived efficacy to comply with the doctor's recommendations was measured by modifying Bandura's (1977) scale dealing with self-efficacy judgments. Motivation to comply with the doctor's recommendations was measured by using a revised version of the motivation scale developed by Dellande et al. (2004). Satisfaction with the medical service experience was assessed by revising Bruner and Hensel's scale (1994) assessing patient satisfaction.

In total, 250 respondents participated in the survey. Fourteen responses were removed from the data set because of either insincere answers or excessive number of missing values. The remaining 236 were used for further data analyses. Among them, 55.2 percent were male and 44.8 percent female. The average age of the respondents was 36.9, with an age range of 19 to 70. The respondents were well educated, as more than 75 percent of them had four-year college education or higher. Approximately 74 percent of respondents had annual household income ranging from 30,000,000 Korean Won and 100,000,000 Won, while 5 percent made more than 100,000,000 Won. The average number of annual visits to medical facilities was 10.01, with a range from 1 to 45 times. Healthcare industry experts confirmed that the population of Korean medical service users was reasonably represented in the study's sample characteristics.

Ⅳ. Analyses

Before running the hypothesis test, a set of preliminary analyses addressing the reliability and validity of the measures were performed. First, an exploratory factor analysis was conducted to examine the item-factor loadings and underlying dimensions. One item from the

perceived control scale and one item from the efficacy scale were removed due to low item-factor loadings. After the purification, twelve items remained as the final question items, which produced a four-factor solution as expected.

Next, Hair et al.'s (2006) two-step analytical procedure was adopted to assess the adequacy of the measurement model and the structural equation model. Such an approach is used to ensure that theory testing using the structural equation model is established based upon measurement scales with sound psychometric properties. A confirmatory factor analysis was implemented to evaluate the measurement model. The overall fit of the measurement model was found to be appropriate, as the fit indices indicate χ^2 = 141.85, df = 48, χ^2/df = 2.95 ($p<.01$), comparative fit index (CFI) = .95, incremental fit index (IFI) = .95, adjusted goodness-of-fit index (AGFI) = .87, standard root mean square residual (SRMR) = .06, and root mean square error of approximation (RMSEA) = .08. Thus, the measurement model of the study was found to have an acceptable fit to the data (Hair et al., 2006).

After verifying the overall fit of the measurement model, reliability of the study's scales was examined. Each of the study's four scales was deemed to have adequate reliability as the compositive reliability (CR) scores of perceived control, self-efficacy, motivation, and satisfaction were .71, .89, .90, and .88, respectively (see Table 1), which were above the recommended cut-off point (i.e., .70) suggested by Hair et al. (2006). Additionally, convergent validity of the scales was evaluated by reviewing the magnitude of factor loadings. All constructs in the research model indicated factor loadings greater than .5, suggesting sufficient convergent validity (Anderson and Gerbing, 1988). Finally, discriminant validity of the measures was checked by investigating whether the confidence intervals of the correlation estimate between two factors included 1.0 (Anderson and Gerbing, 1988). None of the intervals between the two factors included 1.0, implying satisfactory discriminant validity of the measures (See Table 2). Based upon these tests and findings, measures of the study were evaluated to have sufficient psychometric properties for a robust theory testing.

Table 1. CFA Estimates, Composite Reliability, and Average Variance Extracted

Construct	Source	Items	Item Loading	Composite Reliability	AVE
Perceived control	Gotlieb et al. (1994); Lee (2010)	It was I who made major decisions in my healthcare services	.786	.711	.501
		Mostly, I had the final word on my healthcare services	.874		
		When it comes to my healthcare decisions, it's mostly up to me	.533		
Self-efficacy to comply with doctor's recommendations	Bandura (1977)	I felt that I was able to follow what was recommended by my doctor.	.913	.885	.721
		I felt that I was able to do the physical activities as recommended by my doctor.	.902		
		I felt that I was able to keep my diet as recommended by the doctor.	.829		
Motivation to comply with doctor's	Dellande et al. (2004)	I felt motivated to follow what was recommended by my doctor.	.842	.896	.740
		I felt motivated to do the physical	.901		

recommendations		activities as recommended by my doctor.			
		I felt motivated to keep my diet as recommended by my doctor.	.902		
Satisfaction with the medical service experience	Bruner and Hensel (1994)	In general, I am satisfied with the medical service that I receive from my doctor.	.897	.878	.711
		My medical doctor has met my expectations.	.882		
		My doctor's healthcare service has been beneficial to my health.	.638		

Table 2. Inter-Factor Correlations

Constructs	1	2	3	4
Perceived control	1.0			
Efficacy	.359	1.0		
Motivation	.421	.550	1.0	
Satisfaction	.424	.499	.615	1.0

Upon the completion of the evaluation of the measurement model, the structural equation model was used to investigate the effect of each predictor (i.e., perceived control, perceived efficacy, and motivation) upon satisfaction as delineated in the study's research model. The overall fit of the research model was found to have a satisfactory fit to the data, as the fit indices indicate χ^2= 117.38, df = 48, χ^2/df = 2.45 (p〈.01), CFI = .96, AGFI = .89, SRMR = .06, and RMSEA = .08.

Path analysis shows that all hypotheses of the study are supported. First, perceived control among medical service users is found to make a positive influence upon their efficacy to comply with doctor's recommendations (H1: β = .36, p〈.01), motivation to comply with doctor's recommendations (H2: β = .25, p〈.01), and satisfaction with healthcare experience (H3: β = .17, p〈.05). Second, medical service users' perception of efficacy is found to have positive effects upon both motivation (H4: β = .48, p〈.01) and satisfaction (H5: β = .21, p〈.01). Additionally, one's motivation to comply with one's doctor's recommendations is found to exert a positive influence upon one's satisfaction (H6: β = .42, p〈.01).

After investigating the hypothesized direct relationships, the mediation effects among the study's variables were assessed. To examine the hypothesized mediation mechanism among perceived control, perceived efficacy, motivation, and satisfaction (i.e., H7a, H7b, and H7c), bootstrapping procedures were used (See Table 3). Specifically, 2,000 bootstrapping samples were obtained from the original data set (n=236) by random sampling. The analysis of the mediation effects was implemented by employing phantom variables as postulated by Macho and Ledermann (2011). As far as the fit of the mediation model is concerned, the fit indices are turned out as adequate, with of the research model was found to have a satisfactory fit to the data, as the fit indices indicate χ^2= 148.85, df = 48, χ^2/df = 2.96 (p〈.01), CFI = .95, AGFI = .88, SRMR = .06, and RMSEA = .08. According to the analysis of mediation,

. perceived control of medical service users has a significant, indirect effect upon their satisfaction through the mediation of perceived efficacy (H7a: point estimate = .06, p〈.01),

. perceived control of medical service users has a significant, indirect effect upon their satisfaction through the mediation of motivation (H7b: point estimate = .08, p<.05), and

. perceived control of medical service users has a significant, indirect influence upon their satisfaction through the mediation of both perceived efficacy and motivation (H7c: point estimate = .05, p<.01).

Mediation analysis provided additional evidence that perceived control among medical service users exerts positive influences upon their medical service experience. First, perceived efficacy to comply with the doctor's recommendations is found to serve as a mediator between perceived control and satisfaction. That is, one's perceived control has additional effect upon one's satisfaction through one's belief that one is competent and effective in attaining the goal (i.e., self-efficacy). Furthermore, the medical service customer's motivation is found to be a meaningful mediator between perceived control and satisfaction. Finally, one's perceived control, when backed up by both efficacy and motivation to comply with the doctor's recommendations, is found to exert additional positive influence upon his/her satisfaction with the service experience. In summary, perceived control has both direct effects and indirect effects upon one's satisfaction with the medical service experience. The variance explained in the dependent variable is .13 (perceived efficacy), .38 (motivation), and .43 (satisfaction).

Table 3. Bootstrapping Indirect Effects and 95% Confidence Interval (CI) for the Mediational Model

Mediation (Hypothesis)	Independent Variable	Dependent Variable	Point estimate (p-value)	Bootstrapping (95% CI)	
				Lower bound	Upper bound
Perceived control → Perceived efficacy → satisfaction (H7a)	Perceived control	Satisfaction	.06* (.001)	.014	.098
Perceived control → Motivation → satisfaction (H7b)	Perceived control	Satisfaction	.08 (.001)	.034	.144
Perceived control → Perceived efficacy → Motivation → satisfaction (H7c)	Perceived control	Satisfaction	.048* (.006)	.027	.091

Notes: * significant at .01.

V. Discussion

High levels of dissatisfaction and negative emotions pertaining to healthcare services have been a pervasive problem. This study, bolstered by the efficacy- and motivation-enhancing effects of perceived control, has proposed and empirically examined a conceptual model to explore an alternative way to enhance service experiences among medical service users. Findings of this study are generally consistent with what has been registered in the services marketing literature. Nevertheless, the study reports a unique insight into the comprehension of medical service experiences and their users' behaviors.

First, the concept of perceived control is identified as a factor that enhances the quality of individuals' medical service experiences. A sense of control makes a direct influence upon medical users' self-efficacy to comply with doctor's recommendations (β = .36, p<.01), motivation to comply with doctor's recommendations (β = .25, p<.01), and satisfaction with their

medical service experiences (β = .17, p<.05). Thus, customers of the medical service industry prefer to feel control during their medical service encounters. Those who believe that they oversee their healthcare matters are found to be more goal-oriented, develop positive thinking about their competence in performing directives recommended by the doctors, become highly motivated to work with healthcare service providers, and ultimately have a higher chance of experiencing satisfaction. Second, a medical service user's self-efficacy is found to exert positive influences upon both motivation (β = .48, p<.01) and satisfaction (β = .21, p<.01). An individual's self-efficacy is found to be instrumental for him/her not only to develop motivation to comply with the doctor's recommendations, but also to become persistent and goal-directed, which, in turn, enhances his/her chance to experience satisfaction. Third, one's motivation to comply with medical directives is found to exert a positive influence upon one's satisfaction (β = .42, p<.01). Moreover, perceived control is found to exert additional, indirect influences upon medical service users' satisfaction through the mediation of both self-efficacy and motivation. In summary, the findings of the current study support the notion that perception of control among medial service users enhances their role performances as patients.

VI. Conclusions

Contemporary medical organizations adopt business perspectives, recognizing that they are in a competitive industry. Healthcare organizations view their patients as customers, and winning repeat business from existing customers is one of their major strategic goals (Ford and Fottler, 2000). Medical systems with high rates of customer satisfaction are presumed to provide high quality medical services, which make them an attractive choice for the public. In contrast, those reported to have poor customer satisfaction tend to suffer from lessened customer patronage, high marketing expenses, and disappointing revenue. This study has demonstrated a mechanism which highlights the importance of giving patients a sense of control so that they may enact their roles as patients and experience enhanced satisfaction. As such, the study contributes to the existing literature as it successfully presents an alternative route for the improvement in customer experiences. To be specific, the study has revealed that an individual's perception of control has several positive consequences upon self-efficacy, motivation, and ultimately, satisfaction with the medical service experience.

Findings of the study provide meaningful insights for both academics and practitioners. First, it conceptualizes a mechanism that an individual's sense of control makes meaningful influences upon both self-efficacy, motivation, and eventually, satisfaction. That is, a medical service user's sense of superiority or dominance during the medical service encounter is revealed to be a factor that positively boosts one's service experience. The prominent perspective of literature addressing customer satisfaction places emphasis on the service provider's performances or service quality as antecedents of customer satisfaction (Cronin and Taylor, 1992; Parasuraman et al., 1985). Consequently, practitioners in the service industry have devotedly adopted the notion that better service is necessary for greater customer satisfaction. This study, however, is proposing a new intuition which suggests that mere augmentation of perceived control among medical service customers is sufficient for them to have enhanced service experiences. Simply put, patients prefer to develop and maintain a sense of control during their medical service encounters. Such finding is in line with the recent trend in contemporary Western health systems, which highlight the importance of patient-centered care, in which patients feel

that their opinions do count, and they participate in shared-decision making with their doctors (Pieterse and Finset, 2019; Thomas, Bass and Siminoff, 2021). Medical service institutions need to pay attention to such a mindset among their patients and adopt strategies that effectively heighten their sense of control. Medical professionals are to take "actions in collaboration with patients, not just on their behalf" (Millenson, 2014, 979). Furthermore, encounter strategies that enhance perceived control among patients would be a laborsaving initiative for hospitals, as those patients who feel control are found to be more willingly cooperative with recommendations made by medical professionals. Findings of this study, in this regard, provide a set of meaningful strategic underpinnings for a healthcare organization to differentiate itself from its competition.

This study also provides various research venues. Most of all, it would be meaningful to study antecedents and consequences of perceived control among patients. Although the study has demonstrated the significant relationship between perceived control and patient satisfaction, the concept of perceived control has been characterized as a complex concept warranting a thorough validation for an effective application (Rodin, Rennert and Solomon, 1980). For example, an individual's demographic characteristics such as, but not limited to, age, income, education, and lifestyle, may affect both the extent to which one prefers to feel control and the manner one senses control in their medical service encounters. In addition, one's involvement with the medical matter may also affect the desired amount of control in a medical service experience. Similarly, the extent/seriousness of one's illness may also affect the desired amount of control. It is highly likely that for most medical service users, neither too much nor too little control would be satisfactory. Consideration and control of the aforementioned variables and beyond would help us understand the influence of perceived control upon medical service experiences in a more detailed manner. Academic pursuits for advancement of our understanding of the role of control in the medical services sector are highly anticipated.

In conclusion, this study presents a set of distinctive findings for medical organizations to augment patient experiences. The main thrust of this study suggests that it is necessary for healthcare practitioners to consider implementing service encounter strategies that purposefully enhance the sense of control among their patients. The identification of significant inter-relationships among perceived control, motivation, self-efficacy, and satisfaction among medical service customers should also serve as a meaningful seed for further research pursuits. It is highly expected that future academic endeavors will apply, elaborate, and extend this study's perspective.

References

Anderson, J. C. and D. W. Gerbing (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin,* 103(3), 411-423.

Arasli, H., E. H. Ekiz and S. H. Katircioglu (2008). Gearing service quality into public and private hospitals in small islands: Empirical evidence from Cyprus. *International Journal of Health Care Quality Assurance,* 21(1), 8-23.

Austin, J. T. and J. B. Vancouver (1996). Goal constructs in psychology: Structure, process, and content. *Psychological Bulletin,* 120(3), 338–375.

Averill, J. R. (1973). Personal control over aversive stimuli and its relationship to stress. *Psychological Bulletin,* 80(4), 286-303.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review,* 84(4), 191-215.

Bandura, A. (1998). Health promotion from the perspective of social cognitive theory. *Psychology and Health,* 13(4), 623-649.

Bandura, A. (2000). Social cognitive theory: An agentic perspective. *Annual Review of Psychology,* 52(1), 1-26.

Bandura, A. and D. H. Schunk (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology,* 41(3), 586-598.

Bayton, J. A. (1958). Motivation, cognition, learning - basic factors in consumer behavior. *Journal of Marketing,* 22(January), 282–290.

Becker, L. and E. Jaakkola (2020). Customer experience: fundamental premises and implications for research. *Journal of Academy of Marketing Science,* 48(1), 630-648.

Bienstock, C. C. and M. R. Stafford (2006). Measuring involvement with the service: A further investigation of scale validity and dimensionality. *Journal of Marketing Theory and Practice,* 14(3), 209-221.

Bendapudi, N. M., L. L. Berry, K. A. Frey, J. T. Parish and W. L. Rayburn (2006). Patients' perspectives on ideal physician behaviors. *Mayo Clinic Proceedings,* 81(3), 338-344.

Blau, P. (1964). Exchange and power in social life. New York: John Wiley & Sons.

Boulding, K. (1989). Three faces of power. Newbury Park, CA: Sage Publications.

Bruner, G. C. and P. J. Hensel (1994). *Marketing scale handbook: A compilation of multi-item measures.* Vol 1. Chicago: American Marketing Association.

Byrne, S. K. (2008). Healthcare avoidance: A critical review. *Holistic Nursing Practice,* 22(3), 280-292.

Chang, C. (2008), Choice, perceived control, and customer satisfaction: The psychology of online service recovery. *CyberPsychology & Behavior,* 11(3), 321-328.

Conway, M., R. Fazio and S. Mayman (1999). Judging others' emotions as a function of the others' status. *Social Psychology Quarterly,* 62(3), 291-305.

Copeland, J., (1994), Prophecies of Power: Motivational Implications of Social Power for Behavioral Confirmation. *Journal of Personality and Social Psychology,* 67(2), pp.264-277.

Cronin, J. J. and S. A. Taylor (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing,* 56(3), 55-68.

Dellande, S., M. C. Gilly and J. L. Graham (2004). Gaining compliance and losing weight: The role of the service provider in health care services. *Journal of Marketing,* 68(3), 78-91.

Diehl, K. and C. Poynor (2010). Great expectations?! Assortment size, expectations, and satisfaction. *Journal of Marketing Research,* 47(2), 312-322.

Eleuch, A. (2011). Healthcare service quality perception in Japan. I*nternational Journal of Health Care Quality Assurance,* 24(6), 417-429.

Ford, R. and M. Fottler (2000). Creating customer-focused health care organizations. *Health Care Management Review,* 25(4), 18-33.

Goldstein, D. (1989). Control theory applied to stress management. *Advances in Psychology,* 62, 481-491.

Gotlieb, J., D. Grewal and S. Brown (1994). Consumer satisfaction and perceived quality: Complementary or divergent constructs? *Journal of Applied Psychology,* 79(6), 875-885.

Guo, L., S. Lotz, C. Tang and T. Gruen (2016). The role of perceived control in customer value cocreation and service recovery evaluation. *Journal of Service Research,* 19(1), 39-56.

Hair, J., W. Black, B. Babin, R. Anderson and R. Tatham (2006), Multivariate data analysis. Upper Saddle River, NJ: Pearson Prentice Hall.

Hui, M. and J. Bateson (1991). Perceived control and the effects of crowing and consumer choice on service experience. *Journal of Consumer Research,* 18(2), 174-184.

Jewell, R. D. and B. Kidwell (2005). The moderating effect of perceived control on motivation to engage in deliberative processing. *Psychology and Marketing,* 22(9), 751-769.

Kolodinsky, J. (1993). Complaints, redress, and subsequent purchases of medical services by dissatisfied consumers. *Journal of Consumer Policy,* 16(2), 193-214.

Langer, E. and J. Rodin (1976). The effects of choice and enhanced personal responsibility for the aged: A field experiment in an institutional setting. *Journal of Personality and Social Psychology,* 34(2), 951-955.

Lee, J. (2010). Perceived power imbalance and customer dissatisfaction. *The Service Industries Journal,* 30(7), 1113-1137.

Lee, J. and A. Allaway (2002). Effects of personal control on adoption of self-service technology innovations. *Journal of Services Marketing,* 16(6), 553-572.

Lemon, K. and P. Verhoef (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing,* 80(6), 69-96.

Lian, O., S. Nettleton, H. Grange and C. Dowrick (2022). "I'm not the doctor; I'm just the patient": Patient agency and shared decision-making in naturally occurring primary care consultations. *Patient Education and Counseling,* 105(7), 1996-2004.

Lim, P. and N. Tang (2000). A study of patients' expectations and satisfaction in Singapore hospitals. *International Journal of Health care Quality Assurance,* 13(7), 290-299.

Litt, M. D. (1988). Self-efficacy and perceived control: Cognitive mediators of pain tolerance. *Journal of Personality and Social Psychology,* 54(1), 149-160.

MacInnis, D. J., C. Moorman and B. Jaworski (1991). Enhancing and measuring consumers' motivation, opportunity, and ability to process brand information from ads. *Journal of Marketing,* 55(October), 32–53.

Macho, S. and T. Ledermann (2011). Estimating, testing, and comparing specific effects in structural equation models: The phantom model approach. *Psychological Methods,* 16(1), 34-43.

Millenson, M. L. (2014). New roles and rules for patient-centered care. *Journal of General Internal Medicine,* 29(July),979–980.

Mogliner, C., T. Rudnick and S. Ivengar (2008). The mere categorization effect: How the presence of categories increases choosers' perceptions of assortment variety and outcome satisfaction. *Journal of Consumer Research,* 35(2), 202-215.

Molina, Y., S. Kim, N. Berrios and E. A. Calhoun (2014). Medical mistrust and patient satisfaction with mammography: The mediating effects of perceived self-efficacy among navigated African American women. *Health Expectations,* 18(October), 2941-2950.

Parasuraman, A., V. Zeithaml and L. Berry (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing,* 49(Fall), 41-50.

Park, C. W. and B. Mittal (1985). A theory of involvement in consumer behavior: Problems and issues. In J. N. Sheth (Ed.), *Research in consumer behavior*(Vol. 1). Greenwich, CT: JAI Press.

Pieterse, A. H. and A. Finset (2019). Shared decision-making – much studied, much still unknown. *Patient Education and Counseling,* 102(11), 946-1948.

Powers, W. T. (1991). Commentary on Bandura's "human agency." *American Psychologist*, 46(2), 151–153.

Reubin, D. B., R. C. Maly, S. H. Hirsch, J. C. Frank, A. M. Oakes, A. L.Sill and R. D. Hays (1996). Physician implementation of and patient adherence to recommendations from comprehensive geriatric assessment. *American Journal of Medicine,* 100(4), 444-451.

Rodin, J., K. Rennert and S. Solomon (1980). Intrinsic motivation for control: Fact of fiction. in *Advances in Environmental Psychology: Volume 2. Applications of Personal Control.* A Baum and J. Singer eds., Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Schat, A. and K. Kelloway (2000). Effects of perceived control on the outcomes of workplace aggression and violence. *Journal of Occupational Health Psychology,* 5(3), 386-402.

Skinner, E. (1996). A guide to constructs of control. *Journal of Personality and Social Psychology,* 71(3), 549-570.

Stajkovic, A. D. and F. Luthans (1998). Self-efficacy and work-related performance: A meta analysis," *Psychological Bulletin,* 124(2), 240-261.

Stevens, L. and S. Fiske (2000). Motivated impressions of a powerholder: Accuracy under task dependency and misperception under evaluation dependency. *Personality and Social Psychology Bulletin,* 26(8), 907-922.

Tetrick, L. E. and J. M. LaRocco (1987). Understanding, prediction, and control as moderators of the relationships between perceived stress, satisfaction, and psychological well-being," *Journal of Applied Psychology,* 72(4), 538-543.

Thomas, E., S. Bass and L. Siminoff (2021). Beyond rationality: Expanding the practice of shared decision making in modern medicine. *Social Science & Medicine,* 277(May), 113900.

Thompson, S. and S. Spacapan (1991). Perceptions of control in vulnerable populations. *Journal of Social Issues,* 47(4), 1-21.

Vancouver, J. B., C. M. Thompson, C. E. Tischner and D. J. Putka (2002). Two studies examining the negative effect of self-efficacy on performance. *Journal of Applied Psychology,* 87(3), 506–516.

Wall, T., P. Jackson, S. Mullarkey and S. Parker (1996). The demands-control of job strain: A more specific test. *Journal of Occupational and Organizational Psychology,* 69(2), 153-166.

Ward, J. and J. Barnes (2001). Control and affect: The influence of feeling in control of the retail environment on affect, involvement, attitude, and behavior. *Journal of Business Research,* 54(2), 139-144.

White, R. (1959). Motivation reconsidered: The concept of competence. *Psychological Review,* 66(5), 297-333.

Wilmot, W. and J. Hocker (2001). Interpersonal conflict. New York: McGraw-Hill Higher Education.

Zandbelt, L. C., E. M. Smets, F. J. Oort, M. H. Godfried and H. C. Haes (2007). Patient participation in the medical specialist encounter: Does physicians' patient-centered communication matter? *Patient Education and Counseling,* 65(3), 396-406.

www.theacsi.org., American Customer Satisfaction Index – Ratings by Industry.