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Patient Attitudes Toward Physicians: Benchmarking consumer perceptions from 15 countries

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Abstract

Purpose — Stakeholders affiliated with healthcare services should understand patient attitudes and criteria that are involved in selecting a personal physician. This exploratory investigation attempts to identify the factors that are significant to patients in selecting or deselecting physicians as providers of healthcare services.

Design/methodology/approach — The research structure was set to theorize the physician selection criteria (PSC) model into two phases. The first phase developed a conceptual model as revealed from healthcare consumer perceptions. The second phase was designed to test and validate the model through cause-effect statistical analysis underpinned by theoretical explanations through an empirical study.

Findings — Through an empirical study of benchmarking perceptions of people from 15 different countries, qualitative physician selection criteria were gathered and used to formulate an initial PSC model. Based on the proposed model, a validity test was conducted, and finally the physician selection criteria (PSC) model was developed, resulting in several interesting and self-explanatory outcomes.

Research limitations/implications — The model was tested in only one (relatively cosmopolitan) city. For proper generalization, it should be tested in countries with differing healthcare service systems.

Practical implications — The results of this study are interesting, important, and have potential values to academics and medical professionals. The study provides strong evidence that a physician's external approach to patients is the most significant issue for patients seeking medical services. This does not refer to basic medical services, but rather the treatment process, where the physician's

behavior and positive attitude has the strongest effect on the patient's decision to choose one physician over others.

Originality/value — Final PSC model has identified some significant theoretical explanations for academics and professional justifications for practitioners.

Keywords: Patient, Consumer, Physician, Selection, Attitude, Benchmarking Perception

1. Introduction

Like consumers of market commodities in the Internet era, patient tastes, requirements, and demands for healthcare services are changing rapidly (ESG 2011). Patients want to be informed and their expectations are versatile (Hibbard 2003). They want to become familiar with physicians' supplementary qualities, educational background, job experience, and comparative competence. Due to globalization and the free availability of information about healthcare services and medical professionals, patients can easily collect information about physicians and can use their cognitive, affective, and conative functions of attitude in selection of physicians and their services. Applying deductive and conductive logic, consumers can select or deselect their physicians for particular health-related problems. Now the important question is to determine which factors are significant and have potential value to the patients when selecting or deselecting physicians to provide healthcare services. Do the patients apply only cognitive learning in selection of general physician as a primary healthcare service provider or do they also rely on psychological emotions to assist in forming attitudes towards particular physicians?

For many diseases and other medical conditions, patients can recover after a certain time by taking medications prescribed by physicians. The ultimate focus of most patients seeking physician services is to resolve a specific physical health problem for which advice has been sought. However, patients with most health-related problems (except for rare, complicated, chronic, and life-threatening diseases) generally recover after taking medications or therapies prescribed by physicians. Therefore, it is very unlikely that patients can evaluate, recognize, and truly understand a general physician's comparative quality in identifying the actual problem and prescribing accurate and appropriate medicines required for that particular disease or condition (Ong et al. 1995; Overem et al. 2012).

For example, suppose a patient is visiting a general physician because of a seasonal cough with cold and fever. The doctor examines the patient and may ask for certain blood tests. After reviewing the test results, the doctor may prescribe one cough syrup, one drug for fever relief, and one antibiotic. Another doctor in the same situation may prescribe one drug for fever relief and one antibiotic without any blood test. Yet a third doctor may prescribe for the same patient after a thorough checkup, only one drug for fever relief. Now the important question is: who is the best doctor among these three in terms of identifying the actual problem, and prescribing an appropriate treatment? Was the blood test actually needed? Who prescribed the most suitable drugs? Is it possible from this limited experience for a patient to evaluate the physicians in terms of their competence in administering accurate and appropriate medications? What are suitable selection criteria for patients, while having a medical problem, to seek healthcare service from a particular physician among other physicians? Is it possible to delineate the statement 'optimization of service in the most efficient and effective way', in order to provide the best diagnosis and administration of therapies at minimum cost, time, and effort for sustainable resolution of the medical problem?

All healthcare service stakeholders need to understand patient attitudes that relate to selection criteria for healthcare providers. The most important issue, which has both theoretical and practical implications, is the motivations or expectations of patients to seek out specific physicians. Professionally, solutions to this issue can also ultimately contribute to healthcare service design (Simpson et al. 1991; Stewart 1995). This service design should be customer centered and fulfill patient motivations towards selecting specific physicians. Although this study is entirely exploratory in nature, care has been taken to gather, comprehend, and establish a general conceptual patient paradigm for seeking and selecting a physician for health care services.

In summary, the objective of this research is to identify and postulate patients' attitudinal factors in selecting a general physician over others. Precisely, what are the factors that pursue patients as consumers to select a general physician as the primary healthcare provider? The specific research questions aimed to reveal from this study: Are the patients really capable to understand, compare, and finally choose physicians in terms of their qualifications to receive healthcare service? Can a patient really evaluate a physician's quality in recognizing a problem and proposing the most suitable therapy? For recurring visits, does a patient visit a physician's clinic persuaded by cognitive attitude or affective attitude? These are very important questions for both physicians and healthcare administrators as well as for any service sectors (Merchant & Gaur, 2008).

The next section explores the literature regarding patient attitudinal development for selecting physicians, combined with an adaptation of the theory of buyer cognitive and affective attitude for high-effort service. A following section deals with a methodology that prepares an overall framework for a related empirical study, sample selection and collection of patient opinions on selecting physicians for health-related problems. This is followed by several statistical analyses that reveal the general trend of participant responses. Then respondent results are compared with theoretical underpinnings of consumer attitude and behavior, to formalize a recommended concept of personal behavior in seeking healthcare service and choosing physicians. The paper concludes with a discussion and guidelines for future exploratory research.

2. Conceptual Development: Literature and Theoretical Underpinnings

A systematic literature review is important to accomplish this type exploratory research (Gaur & Kumar, 2018). Patients, as consumers of healthcare services, are usually aware of treatments, outcomes, and possible selection criteria (Simpson et al., 1991). Like other high quality services, patients often create their belief first which contributes and prolongs substantially in forming their attitudes. This comprehensive view, which is composed of cognitive, affective, and conative functions of attitude, influences their final behavior in physician selection. Accumulated experience, achieved through inference and interaction with their physicians, motivates their recurring visits to medical service centers (Stewart 1995). As consumers of healthcare services, patients develop attitudes to their physicians through exposure, attention, and perceptions. This contributes to cognitive and behavioral learning, governed by stimulus response (Overeem et al. 2012).

Consumer Behavior and Attitude

Since consumer behavior and attitude is not explored extensively in the previous studies, this study, by nature, is exploratory. Therefore, to address, understand, and develop a set of criteria for patients

as consumer to select a general physician as a primary healthcare provider, this study has analyzed several theories related to consumer behavior and attitude. Then based on the paradigm of these theories, this study is attempted to conceptualize consumers' selection criteria of a general physician. We can assume that selection of physicians for advice on any health related problem is generally a high effort outcome; however, for many general, regular, and seasonal problems where the outcome is less risky, the decision making process could be similar to that involved in a low effort outcome. Nevertheless, an important concern is the patient beliefs that set the criteria of patient selection and choice of physicians. Based on the theory of reasoned action (TRA) (Fishbein & Ajzen 1975), beliefs can be informed by individual impressions and feelings and/or can be introduced as subjective norms. This research investigates whether individual beliefs, or those formed through the influence of others, are developed from rational decisions, (i.e., entirely from cognitive functions), or those beliefs which govern attitude and ultimate behavior, are composed of affective functions. Fundamentally, we define the cognitive function as an individual's thinking process derived from past experience and reasoning beliefs (McDougall & Levesque, 2000). The affective function relates to feelings derived from emotional beliefs.

We will precede our exploratory investigation about the physician selection process with abductive reasoning. Abductive reasoning reflects an intention to initiate an investigation involving certain background observations proven from different psychological and human behavior theories. Consumer behavior, for instance selecting a physician, typically integrates marketing knowledge about the consumer decision making process from: feeling needs, searching information (one's own or from associates), evaluating alternatives based on beliefs, finalizing a choice of physician, accepting his/her service, passing through the problem solving phase under the physician's treatment, and developing positive or negative perceptions which may or may not encourage the patient to return for more visits to the same physician. We argue that, for the majority of health related problems, patients hardly have an ability to evaluate whether physicians have the technical competence to address the actual problem, and administer the appropriate therapy to cure the problem. We also argue that most simple/seasonal health related problems can be cured with or without the skillful service of physicians, patients cannot understand which physicians have the best technical competence to manage and implement the appropriate different phases of treatment in the most efficient and effective way (Brewin & Bradley 1989). Under abductive reasoning, we will mostly follow the decision making phase concerning beliefs which help direct patients to evaluate the alternatives; that is, selecting a physician from a possible list of physicians, as suggested by Brewin & Bradley (1989).

Following the underlying concept of cognitive dissonance theory (Festinger & Carlsmith 1959), while evaluating any particular physician from a list, patients would rhetorically compare them under a set of prioritized beliefs. If we focus on gratification theory (LaRose et al. 2001), the consumer's selection process is presumably governed by outcome expectations (Sureshchander et al., 2002). However, the outcome expectations are almost the same for all patients— they need to get relief from their problem or condition with a minimum of time, cost, and effort. We define this as optimization of the physician's service reflecting his/her competence, supported by the underlying concept of the study of Brewin and Bradley (1989). With this approach, since patient outcome expectations are virtually static and permanent, the abstract selection process contributes almost no visible cues to compare alternative physicians. In this connection, consumer demand theory (Michael & Becker, 1973) indicates that consumers generally attempt to maximize their utility from any purchase (Harwood & Garry, 2015). Since outcome expectations are consistently similar, time and effort utility

could contribute potential value to the selection process. Interestingly, Bentham's fifteen critical parameters for specific purchases (principles of legislation, 1931) include senses, riches, address, friendship, good reputation, power, piety, benevolence, malevolence, knowledge, memory, imagination, hope, association, and relief of pain can provide an excellent set of conceptual parameters as selection criteria. Rothschild (1981) investigated consumer buying patterns from a marketing perspective and asserted that consumers are most likely to switch from one brand to another due to reinforcement of the deal and not the product. This aligns with an argument that patients might have power for searching and developing affective attitudes (Stewart 1995) rather than evaluating physician competence (like a product) through cognitive reasoning. Based on this reasoning, we can infer Simon's (1979) logic that when consumers attempt to maximize their utility, their reliance on psychological issues increases dramatically.

Patient-Physician Interaction

Stewart (1995) reviewed 21 seminal studies of physician-patient relationships for their impacts on effectiveness and outcomes. This study found that, for an effective outcome of any physical and psychological treatment, physician-patient relationship is the key determining factor. Patients are highly encouraged through physician information about the entire process of treatment (equivalent to better service quality), resulting in intrinsic motivation for the physician's treatment process (Zolnierek & DiMatteo 2009). The implied significance of this study is that patients perceive physicians to be providing better service if they feel some invisible but caring relation with the physician, and this leads to an emotional attachment with the physician that contributes to their affective attitude. Kao et al. (1998) studied 292 patients in USA and found that patient-physician relationships have a significant positive effect on the physician selection process because of implied trustworthiness. The persuasive learning process that is initiated and developed from external learning about a physician's interactive performance is supported by social cognitive theory (Bandura 1986). Physician responses to patient queries that include justified explanations will also assure appropriate problem identification and optimized treatment (Audet et al. 2006).

As consumers of health services, patients tend to have a continuing need for satisfactory explanations from their physicians (Brewin 1988; Caine et al. 2015; Hoffman & McNaughton-Collins 2014; Stewart 1995). Also, Brewin and Bradley (1989) found that patients like to be informed about treatment processes in a way that creates their emotional persuasive beliefs, thus developing affective attitudes. Many psychological and social behavioral studies (Bandura 1986; Hibbard 2003; Hoffman & McNaughton-Collins 2014) including healthcare service related studies (Haezen-Klemens & Lapinska 1984; Emanuel & Dubler 1995; O'Malley et al. 2015; Peabody et al. 2000; Stewart 1995) attempted to establish links between service provider interactions and service receiver motivation levels. These studies clearly observed relationships between interactive attitudes of service providers and enhancement of service receiver intrinsic motivation, resulting in affective attitudes with recurring attachments (supported by Ong et al. 1995).

From diagnosis and interpretation of several practical healthcare case studies, researchers (Hibbard 2003; Hoffman & McNaughton-Collins 2014; Emanuel & Dubler 1995; O'Malley et al. 2015; Simpson et al. 1991; Wright 2015) found that physician approach to and empathy with patients is ultimately evaluated by patients as expected service quality. There are potential subtle differences in patient health diagnosis and treatments. Considering patient background and previous health related problems, even presenting with similar symptoms they might undergo different lab tests and

treatments involving different approaches. Physician ability to recognize related subtle differences through positive approaches to patients can be very persuasive for patients (Mechanic 1996; Peabody et al. 2000). These revelations clearly indicate that patients are motivated to evaluate physician expressive and external behavior related to their approaches to specific treatments.

The selection process related to vulnerable issues is rooted in the outcomes expected from the process. This derives from the underlying concept of the theory of gratification. Researchers (Balasubramanian et al. 2003; Mechanic 1996; Shareef et al. 2011) observed that the trustworthiness perception of a process explicitly dictates positive outcomes. That is, if consumers trust the service providers, they have a strong reliance on desired outcomes from the service. Several researchers (Emanuel & Dubler 1995; Hibbard 2003; Kao et al. 1998; Mechanic 1996) found that physician-patient trust is an imperative factor for perceived higher quality and competence of physicians and in their selection. Kao et al. (1998) and Wright (2015) also found that long term relationships can contribute to the development of trust in physician-patient relationships. Researchers with professional healthcare service backgrounds have also affirmed that patient health service payment systems have an overarching effect on their trust of physicians; conversely, this trustworthiness through long term relationships can ultimately create satisfaction leading to loyalty (Emanuel & Dubler 1995).

3. Research Structure

As an exploratory theoretical investigation, the research structure of this study was set to theorize the physician selection criteria (PSC) model in two phases. The first phase was to develop a conceptual model based on general patient perceptions. The second phase was designed to test and validate the model through cause-effect statistical analysis underpinned by theoretical explanations.

In the initial phase, the study attempted to identify the most important issues or factors in a person's decision to choose a general practitioner to consult for any common/general or seasonal health related problems. The study did not involve any questionnaire in the context of conceptual model development; rather, complete freedom was given to the respondents to address and postulate their own criteria for selection of a physician, reflecting self-judgment and perception. As an exploratory investigation for developing a conceptual model, it is appropriate to ask the respondents to propose their own criteria rather than asking them to evaluate set criteria. The second phase involved a systematic empirical study with statistical analysis to validate cause-effect relations.

Conceptual Model Development

Fifteen countries were selected from different continents to maintain variability in terms of cultural and healthcare service system differences so that the statistical power of participant responses would be enhanced. The countries chosen were: Canada, USA (from North America), Brazil, Venezuela (South America), United Kingdom, Ireland, Germany (Europe), South Africa, Ghana, Somalia (Africa), China, South Korea, India, Bangladesh (Asia), and Australia (Australia). These countries were selected to collect response considering some issues of consumer attitude and healthcare service. These are:

1. There is enough cultural variability among the countries, thus ensuring attitudinal differences.
2. Healthcare service system is significantly different in the aforementioned countries
3. The countries are representing all the continents

From each country, six people were selected in a convenience survey: three from industry/businesses and three from universities. These people were selected from previous affiliations with the authors or their associates. Each of the six people in each case was asked to select an additional two people -- one from industry and another from a university. Following this method, a total of eighteen people were chosen as respondents from each country. This resulted in a total sample size of 270 (18 people from 15 countries each) respondents from 15 countries representing six continents.

The use of a convenience sample limits the statistical power due to insufficient variability among respondents (type II error). However, because of the exploratory nature of the investigation and the need for certain qualification and cognitive judgment of the participants to evaluate complex buying behavior, such partial randomness is acceptable. Randomness arises from participants with different backgrounds from fifteen countries, helping to minimize type I error. Common method variance (CMV) or raters' biasness (Malhotra et al. 2006) can result from studies like this, but cognitive judgment from past experiences of adults can help to limit CMV (Burton-Jones 2009).

All the participants were contacted by email and asked to respond in the following question: "You know many qualified physicians who are available to provide you health service. Among those qualified physicians, you will prefer any specific physician to meet and take advice for your common/general physical/mental health related problems. Please mention at least **5 most important selection criteria** of that particular physician over other physicians. You may write complete sentence or keyword. **Please arrange the list according to their importance.**"

Typically, all respondents answered within three days. The respondents were university teachers, graduate students, and industry related professionals having different educational and professional backgrounds. Average age of all the respondents was 35 years. Out of 270 respondents, 56 percent were male and 44 percent were female. Reflecting educational background, job experience, age, and professional position, it can be predicted that respondents represented lower middle class, middle class, and higher middle class people. These are likely to have judgment and evaluation capability sufficient to conduct an extended problem solving issue as a consumer of healthcare service, with sufficient cognitive and affective attitude.

The respondents introduced several issues with multidimensional parameters and reasoning. However, quite surprisingly, people of the fifteen countries represented (which have remarkably different healthcare systems), expressed considerable commonalities in their answers. Their judgment, perceptions, and intrinsic expectations had significant similarities in choosing any particular physician over others. Respondents primarily gave their most important reasons to select a physician through keywords, with explanations in a related sentence. The keywords helped the researchers to conveniently categorize the answers into different groups, identifying the constructs as independent reasons of selecting physicians.

To present the qualitative data obtained from the 270 respondents, the information gathered was rearranged according to the principles of matrix thinking, which is a strong statistical technique to organize and categorize qualitative information (Patton, 1981). Some answers that were presented in a long sentence were fragmented and then categorized into defined and recognized attributes, which were obtained from answers containing keywords. Our literature review denoting patient-physician relationships provided additional knowledge about buyer preferences for healthcare service from

physicians. The respondents' collective verbal inputs, once converted by matrix thinking into recognizable independent constructs, had sufficient similarities. This eased the process of categorizing the reasons into the most common 10 groups. We selected any reason of physician selection which was mentioned conceptually by at least fifty percent respondents, as a construct. This helped to reduce sample residues. Following this technique, we selected the 10 most common constructs given in Table 1, along with explanations and attributes as basic reasons for selecting a physician over others. These constructs are collectively the conceptual relationships in the physician selection criteria (PSC) model. The measuring items of the constructs are fundamentally derived from the answers of the respondents. As an exploratory study, it is justified. However, different studies are also used to develop and support the scale items for the respective constructs.

Table 1: Proposed Constructs and Measuring Items for Physician Selection Criteria (PSC) Model

Constructs/ Independent Variables	Definition	Measuring Items	Source
Reputation	The extent to which the physician has earned overall good social evaluation based on general people's opinion	<ol style="list-style-type: none"> 1. I know the physician has good name in my society 2. I have trust on the physician to seek his/her medical service for my health problem 3. My friends/family members refer me this physician's name to seek his/her medical service for my health problem 4. The physician is attached with a renowned hospital/clinic 5. The physician has good professional record 	Shareef et al. 2008; Respondents
Approach	The extent to which the physician's holistic view to the patients is very pleasant and caring so that patients find an intrinsic relation with the physician	<ol style="list-style-type: none"> 1. The physician is very kind to me during treatment 2. I feel that the physician is very caring to me during treatment 3. The physician shows informal attitude toward me during treatment 4. The physician listens my all problems with empathy during treatment 5. I can easily communicate with the physician during treatment 6. The physician has good welcoming behavior 7. The physician has very attractive personality 8. The physician shows good caring about my problems during treatment 9. The physician provides mental support with positive attitude toward my problem during treatment 	Moore & Benbasat 1991; Respondents
Experience	The length of service to provide healthcare treatment to general patients and the intensity and variety of working knowledge, the physician has accumulated as a professional physician	<ol style="list-style-type: none"> 1. The physician has engaged in professional service for long time 2. The physician deals many patients everyday 3. The physician deals a variety of patients everyday 4. The physician has immense working knowledge in his/her profession 5. The physician deals a variety of patients for many years 	Dwivedi et al. 2016; Venkatesh et al. 2012; Respondents
Information	The extent to which the physician disseminate	<ol style="list-style-type: none"> 1. The physician is very much informative 2. The physician provides all kinds of health related information to the patient as per the demand of the 	Shareef et al. 2011; Respondents

	information about any issues related to my problem including diagnosis, treatment, test, prescribed drugs and its side effect, and future consequences of my problem as per the demand of the patients	<p>patient</p> <ol style="list-style-type: none"> 3. The physician provides clear idea about the problem of the patient 4. The physician provides clear idea about each step of the diagnosis process to the patient 5. The physician provides clear idea about the tests prescribed to the patient for treatment 6. The physician provides clear idea about the treatment of the patient 7. The physician provides clear idea about the drugs administered to the patient 8. The physician provides clear idea about the severity of the problem of the patient and its future consequences 9. The physician tries to satisfy the patient about any kinds of queries of the patients 	
Availability	The extent to which the physician makes him/her available for the patient for consulting his/her health related issues	<ol style="list-style-type: none"> 1. The appointment process of the physician is easy 2. The appointment can be taken from the physician through any convenient ways of the patients 3. The patients can get access to the physician for consultation about health related problems at most of the time of the day 4. The patients can get access to the physician for consultation about health related problems even out of office hour 5. The physician is available for consultation about health related problems through telephone 	Murru 2003; Respondents
Waiting Time	The extent of time required to get the physician's appointment after feeling need to seek his/her service and meet the physician after arriving in the physician's clinic	<ol style="list-style-type: none"> 1. Whenever I need, I can get an appointment from the physician at a reasonable short time 2. I can get an appointment from the physician at my convenient time 3. The physician always gives a specific appointment time 4. After arriving in the physician's clinic, I do not need to wait after my scheduled time of appointment 5. I can easily get an appointment from my physician at a reasonable short time 	Dwivedi et al. 2016; Venkatesh et al. 2012; Respondents
Cost	The extent to which the patient needs to bear expenditure from own money or from insurance to seek the treatment from the physician	<ol style="list-style-type: none"> 1. The physician's regular fee to seek medical advice from him/her is relatively higher 2. My insurance policy does not cover the physician's total fee to seek medical advice from him/her 3. My insurance is not compatible with the processing of fee of this specific physician 4. To render the service from the physician, it is not costly 5. Overall, my expenditure to render the service of the physician is reasonable. 	Dwivedi et al. 2016; Shareef et al. 2008; Respondents
Location	The extent to which the physician's demographic location is convenient to the patient to visit his/her clinic	<ol style="list-style-type: none"> 1. From my house/office, the physician's clinic is far away 2. Distance wise, this physician is located at a relatively inconvenient place. 3. I have to travel a long way to visit this physician 4. Geographic location of this physician is not convenient for me to travel. 5. In terms of transportation mode, geographic location of this physician is not convenient for me 	Bucklin 1966; Dwivedi et al. 2016; Respondents

Supportive to Resource Accessibility	The extent to which the physician has ability to refer me to another physician or to get appointment from a specialist or to get access to other medical facilities required for my treatment	<ol style="list-style-type: none"> 1. If needed, the physician directly refers me to another physician with necessary arrangement of appointment 2. The physician helps me to get appointment from the specialist if needed for my treatment 3. If needed, the physician directly refers me to essential medical facilities like any kind of tests, physiotherapy etc. with necessary arrangement of appointment 4. The physician is very helpful to get access to any drugs related information related to my treatment 5. The physician is very helpful to get access to any medical service related to my treatment with necessary arrangement of appointment 	Dwivedi et al. 2016; Venkatesh et al. 2012; Respondents
Drugs and Test Optimization	The extent to which the physician has discretion to appropriately and selectively administer any drugs and conduct any medical tests whenever required for the best treatment of my problem	<ol style="list-style-type: none"> 1. The physician always prescribe too much drugs for my treatment 2. I have an impression that the physician administers too many kinds of drugs even for any regular problem 3. The physician always ask me to conduct too many tests before prescribing treatment for me 4. I have an impression that the physician conducts too many tests even for any regular problem 	Respondents
Physician Selection	The extent to which the citizens are ready to choose a particular physician from a pull of physicians based on comparative perception through cognition	<ol style="list-style-type: none"> 1. I like this physician to seek any health related service 2. I will select this physician from others to seek any health related service 3. I will recommend this physician to my friends/family members to seek any health related service 4. I am satisfied with physician 	Brewin & Bradley 1989; Dwivedi et al. 2016; Shareef et al. 2011/13; Venkatesh et al. 2012; Respondents

Reputation

92 percent of the respondents (either through direct keyword or conceptual meaning) indicated that physician reputation is the most important factor for selecting a particular physician. Reputation, as per the suggestion of the respondents, also has an effect on the cost they are ready to spend to render physician's service. Reputation conceptually represents certain definite characteristics which are rhetorically comprised of cognitive attitude and certain abstract meaning as a reflection of affective attitude. Respondents acknowledged that this reputation is quite coherently associated with a disposition of trustworthiness. Consumer behavior, health, and psychological studies (Chiu et al. 2006; Dodds et al. 1991; Shareef et al. 2008/2014) strongly affirmed that, for any complex service like healthcare, consumers are very concerned about service provider reputation, and closely connected with perceptions of physician competence. Patients cannot explicitly and directly judge a physician's professional skill, so reputation is evaluated through physician performance which they earn through many years in the society where they practice. This reputation depends on education, behavior, and social relationships. Gratification theory also provides illumination through the underlying concept that generally people tend to accept a service if they have positive outcome expectations, and reputation is one such parameter that enhances that outcome expectation. Respondents also referred to some related attributes like references from family members and friends, attachments to hospitals, etc. that can help to evaluate a physician's reputation. The subjective norm

in the Theory of Reasoned Action affirms this human behavior. Vicarious learning, a common technique of human beings supported by social cognitive theory, (Bandura 1986) also supports this connection. This factor is an important predictor for developing positive attitude among consumers in terms of selection and expenditure (shown from Shareef et al. 2008). Reputation is defined in Table 1 considering the conceptual idea from Resnick et al. (2006). Therefore, based on the recommendation of the respondents, the following hypotheses can be stated,

H_a: Reputation of a physician creates favorable attitude among patients to select that physician

H_{a1}: Reputation of a physician persuades patients to spend more (cost) to render that physician's service

Approach

This behavioral parameter is, through deductive reasoning, primarily composed of affective perception. 91 percent of respondents indicated that they tend to identify and evaluate a physician's approach, behavior, and empathetic caring attitude, to choose to visit a physician for any regular/common or seasonal health related problems. In this connection, they were unanimous in asserting that they evaluated a physician's interactivity with them as patients. They felt that a physician must be a very good listener with a positive and optimistic attitude to their problems. A pleasant and welcoming personality is a quality of a good physician (Kao et al. 1998; Kim et al. 2004; O'Malley et al. 2015; Ong et al. 1995; Wright 2015). Social psychology theories provide deep insight into this human behavior. Psychological and behavioral researchers (Simon & Schuster 1992 and some others) indicated that human beings tend to identify empathetic behavior of others as attractive features. The Rogers theory of personality (2004) also affirms that people are attracted to others with affective approaches. Approach governed by empathy is also considered as a predictor of consumer behavior (Shareef et al. 2013). This basically results in congruent and affiliated emotions. A physician's approach is identified by patients through their communications, behavior, caring, etc. This construct is defined in Table 1 borrowing conceptual idea from empathy of Moore & Benbasat (1991). Based on the acknowledgement of the respondents, we propose,

H_b: Approach of a physician creates favorable attitude among patients to select that physician

Experience

Experience as a reason for selection is dependent on cognitive perceptions. Researchers engaged in identifying quality of service (Kettinger et al. 1995; Shareef et al. 2014) found that consumers focus on the quality of service they will accept, and thus are keen to analyze the level of service quality. A physician's quality of treatment is significantly related to competence, where experience is a contributor. 82 percent of respondents indicated that they evaluate a physician's experience and knowledge in order to understand the quality of treatment provided by the physician. Most of the respondents further associated the measurement of 'experience' to length of time in practice. This construct is defined in Table 1 based on the recommendation of the respondents of this study. Experience is highly affiliated with performance expectancy which is recommended as a strong motivational factor for consumers to accept any service (Dwivedi et al. 2016; Venkatesh et al. 2012). Experience of a physician, as per the suggestion of the respondents, also has potential effect on the cost they are ready to spend to render physician's service. Higher experience also helps patients to perceive higher reputation of that physician. Thus, the following hypotheses can be proposed,

H_c: Experience of a physician creates favorable attitude among patients to select that physician

H_{c1}: Experience of a physician persuades patients to spend more (cost) to render that physician's service

H_{c2}: Experience of a physician helps patients to perceive higher reputation about that physician's service

Information

81 percent of respondents expressed a strong reliance on measuring a physician's quality from the information the physician provides during treatment. Patients need a lot of information from their physician about the entire process of treatment including the symptoms, tests, consequences, relationships to other health-related problems, future outcomes, prescribed medications, and any side effects. They were also basically concerned about their future life which might be impacted by their present health problems.

During ill health, if patients do not have sufficient information about their disease or condition, such as reasons why they have it, its severity and possible consequences, and finally recovery possibilities they, as predicted by the general psychology of human behavior, will be panicked into irrational behavior. Researchers (Brewin & Bradley 1989; Caine et al. 2015; Hoffman et al. 2014; Ong et al. 1995), who explored human behavior under risk and emergency, found that lack of sufficient information about the situation exaggerates panic behavior among the victims. Consequently, patients tend to gather as much information as possible about their disease or condition as indicated above, in order to remain mentally stable. From cognitive dissonance theory, there is firm support concerning this human behavior when the consequence and outcome of the disease or condition is uncertain. Researchers from other fields acknowledged that quality of information influences consumers to adopt any service system (Wang & Liao, 2008). Information construct is defined in this study in the light of study of consumers' attitude (Shareef et al., 2011). Therefore, based on the recommendation of the respondents, the following hypothesis can be stated,

H_d: Dissemination of more information to patients by a physician creates favorable attitude among patients to select that physician

Availability

Availability of resource for adopting any service is explained in the study of Shareef et al. (2011). This current study has modified this concept to keep it consistent with the notion of this study, and explained in the Table 1. 79 percent of the respondents cited Availability or related concepts as a critical variable for physician selection. In distribution marketing, Bucklin (1966) found that customers try to minimize searching cost and time, so they demand spatial convenience. Similarly to this concept, patients want to get healthcare service at the right time and at the right place in the most convenient way. Consequently, they need their physicians to be available easily and conveniently, even out of office hours by telephone or other communication facilities. Availability of resource can potentially persuade consumers to adopt the concerning service (Van Dijk et al. 2008). Therefore, based on the recommendation of the respondents, the following hypothesis can be stated,

H_e: Availability of a physician creates favorable attitude among patients to select that physician

Waiting Time

65 percent of respondents expected to make appointments with their physicians in a reasonably short time. This includes the time waiting until the appointment date, and then the wait in the office for the physician to be available. This requirement is similar to customer delivery time requirements from a distribution channel. Several researchers admitted that, when time is an issue, waiting time can be a predictor for consumers to pursue positive attitude (Kumar et al. 2013; Venkatesh et al. 2012). This independent construct is explained in the study of Dwivedi et al (2016). This current study has revised this definition to reflect the intended meaning of the respondents (See Table 1). Based on the recommendation of the respondents, the following hypothesis can be proposed,

H_f: Shorter waiting time of a physician creates favorable attitude among patients to select that physician.

Cost

The role and importance of cost has been widely examined and/or benchmarked in variety of contexts (Gleich et al. 2008; Gunasekaran, 2002; Song & Wang, 2009) including healthcare (see for example, France & Francis, 2005; González et al. 2005). Similarly, cost was an issue for selection of a physician by 64 percent of respondents. This includes a variety of perspectives such as the physician's fee, travel costs, insurance coverage, compatibility of insurance with the processing of the physician's fee, acceptability of insurance policy etc. Consumer behavior studies clearly identify product/service price issues as critical to purchase decisions. This measurable parameter is supported by the underlying concept of social exchange theory (Roloff 1981). Patients are overly concerned by utility maximization, a typical behavior of consumers of any product or service (Michael & Becker 1973). Consequently, the costs a patient incurs in consuming a physician's healthcare service is an important issue in physician selection (Riggs & Alexander 2015). Price value, as a predictor of consumer behavior is also suggested by Venkatesh et al. (2012) in their extended unified theory of acceptance and use of technology (UTAUT) model. The intended meaning of the construct cost recommended by the respondents of this study is defined here in Table 1. We can propose,

H_g: Overall less expenditure (Cost) to render a physician's service creates favorable attitude among patients to select that physician

Location

Location considerations include the physician's geographic location, distance from the patient's home/office, available modes of transportation, convenience of transportation etc. 62 percent of the respondents affirmed this criterion for physician selection. This is very similar to service output requirements underlying the concept of spatial conveyance in distribution channels (Bucklin 1966). Many researchers of consumer behavior asserted that location as a facilitating condition pursues consumer to develop their positive attitude toward product or service (Davis 1989; Dwivedi et al. 2016; Venkatesh et al. 2012). The intended meaning of the construct location is defined here in Table 1 reflecting the conceptual meaning of Bucklin (1966) and Dwivedi et al. (2016). Based on the recommendation of the respondents, the following hypothesis can be stated,

H_h: Better location of a physician creates favorable attitude among patients to select that physician

Supportive Resource Accessibility

In many cases, diagnosis, treatment, and follow up of health issues need advice from several physicians and specialists. Patients may also need to go for blood work and physical tests. In this context, test results and expert opinions are very important in diagnosis, like the influence of aspirational and associative reference groups for consumers. Consequently, patients need support from the primary care physician to gain access to other needed medical facilities. 61 percent of respondents mentioned this issue, indicating that physician selection criteria are influenced by resource accessibility. UTAUT model suggested that facilitating condition is strongly pursuing consumers to adopt any product or service. This construct is defined in Table 1 shedding light on the conceptual definition of facilitating condition (Dwivedi et al. 2016; Venkatesh et al. 2012). If a physician provides better supportive resource accessibility to patients, it can also help patients to perceive favorable approach of that physician toward patients. Thus, the following hypotheses can be illustrated,

H_i: Supportive resource accessibility of a physician for patients creates favorable attitude among patients to select that physician.

H_{i1}: Supportive resource accessibility of a physician for patients helps patients to perceive better approach of that physician.

Drugs and Test Optimization

59 percent of the respondents felt concerned about potential over-prescription of drugs and tests physicians might recommend, including out-of-date tests and drugs. Sometimes, patients might have an emotional impression that physicians sometimes prescribe unnecessary drugs and tests due to potential illegal commissions. However, it is difficult for less knowledgeable patients to understand when this is a real issue that represents physician incompetence. The intended meaning of the construct drugs and test optimization recommended by the respondents of this study is defined here in Table 1. Under the suggestion of the respondents, we can postulate,

H_j: Drugs and test optimization by a physician creates favorable attitude among patients to select that physician

The above mentioned hypotheses are summarized to present the following conceptual model for physician selection criteria (PSC) model shown in Figure 1.

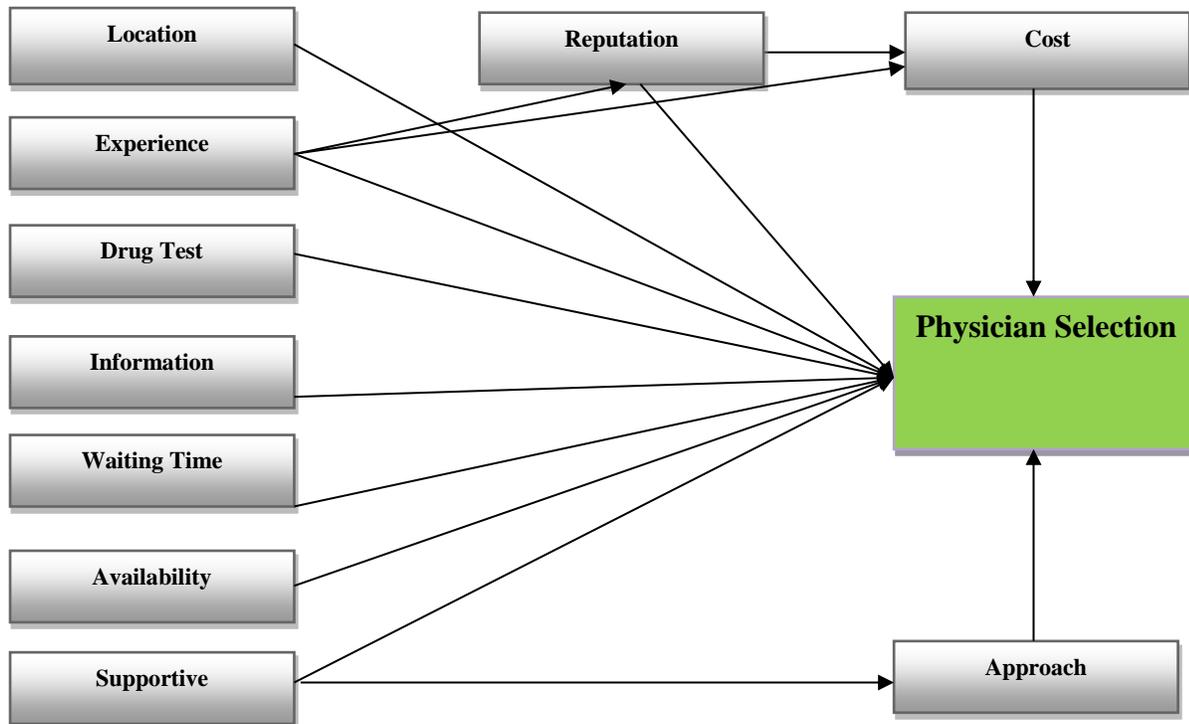


Figure 1: Proposed Physician Selection Criteria (PSC) Model
Model Testing and Validity

The above hypotheses for physician selection criteria were developed in the first phase. It is now assumed based on findings and theoretical underpinnings that the aforementioned 10 constructs can pursue patients to choose a general physician over others. Therefore, these 10 independent variables can form the hypotheses of the physician selection criteria model. These physician selection criteria were tested in the second phase through an empirical statistical study in the USA alone. Participants were asked to respond to the statements in column 3 of Table 1 on a five-point Likert scale ranging from 1 (extremely unimportant) to 5 (extremely important). The measured items of the 10 constructs derived from the first phase of the research were encapsulated from the attributes mentioned under each keyword by the respondents from the fifteen countries. The questionnaire also included a dependent construct with four measuring items representing ‘physician selection’ (see the last entry in Table 1). The questionnaire was reviewed by six university professors from the UK, Canada, and India who have much experience with preparing questionnaires for consumer behavior. It was tested further by 10 medical students in Bangladesh for words and their potential meaning. Finally, a questionnaire of 56 items was crafted to measure the 10 independent constructs for selection of a physician and 4 items to measure the dependent construct. This questionnaire is shown in column three of Table 1.

The methodology relates to conceptual paradigm validity in typical empirical business research. Based on the suggestions of Campbell and Fiske (1959) and Bagozzi et al (1991) concerning reliability and validity, validity testing was designed to address cause-effect relationships through typical user perceptions in the empirical study. At the face validity phase, respondents were people who regularly seek physician advice for health-related problems. This study phase was conducted in

New York City, USA, the world's leading cosmopolitan city with substantial cultural variability. This city was chosen for several reasons:

1. Citizens of this country have significant freedom to choose a physician
2. The USA is a leading country for offering private medical services
3. As a leading individualistic country (see cultural attributes of Hofstede 2001), citizens of this country have a preference for self-reliance
4. In New York City, significant cultural diversity can improve the potential generalization of any empirically tested model

To capture sufficient variability from the sample and maintain significant statistical power, the study was conducted through an empirical study with the questionnaire exhibited in Table 1. For structural equation modeling (SEM), a sample of 100-150 respondents is appropriate (Kline 2005). From our previous experience of conducting empirical studies in New York City through direct distribution of questionnaires (Shareef et al. 2014), we assumed the study would receive around a 40-60 percent response rate. Therefore the questionnaire was distributed to 250 residents in the five regions of New York City through the following systematic procedure:

1. Physically the questionnaires were distributed to the respective addresses with the help of four research assistants.
2. For city-wise sample distribution, responses were systematically collected from five areas named East, West, North, South, and Center.
3. Addresses of potential respondents in the respective areas were selected from the New York City Telephone White Pages.
4. To maintain demographic variability and cultural diversity based on life style, dwellings, and economic capability, the study chose respondents from houses, condominiums, and apartments located in the five regions.
5. 50 percent of the questionnaires were distributed to house and condominium dwellers and the remainder to apartment dwellers.
6. The survey was conducted over a one month period.

We received a total of 157 completed questionnaires from respondents, out of which 6 questionnaires were almost completely blank and were discarded. Therefore, the eligible responses numbered 151, for a response rate of about 60 percent.

4. Statistical Analysis

Before testing the validity of the cause-effect relationship, an exploratory factor analysis (EFA) was conducted on the 56 scale items measuring the proposed 10 causal variables having a direct effect on the dependent variable. For EFA, we used principal component analysis as the extraction method combined with varimax rotation. We used both the breaks-in-Eigen values criterion (>1) and scree plot to determine the number of factors to retain (Stevens 1996, pp. 389-390).

EFA results confirmed the inclusion of all 10 independent constructs; however, several measurement items were rejected due to non-significant loading values. Those items that loaded less than .45 or cross-loaded on more than one factor were removed (Stevens 1996, pp. 389-390). The EFA result rejected the following measurement items (shown in Table 1): for construct 'Approach', statement

numbers 1, 3, 5 and 8; for Information, statement numbers 1, 2, 3, and 6; for Supportive to Resource Accessibility, statement number 4; and for Drugs and Test Optimization, statement number 3 and for dependent variable, statement number 4. The final analysis retained 44 measurement items in the 10 selection criteria and 3 measurement items for the dependent variable. For this type of study, the followed statistical analysis is important (Gaur & Gaur, 2009).

The reliability scores for the constructs were measured by Cronbach's alpha, which ranged from 0.723 to 0.966 suggesting acceptable internal consistency among the items in each dimension (Nunnally & Bernstein 1994). As the measurement part of structural equation modeling (SEM), confirmatory factor analysis (CFA) was conducted to verify construct validity, convergent validity, and discriminant validity. The CFA results for all the 10 independent and 1 dependent constructs confirmed that the scale items are reflective indicators of their corresponding latent constructs with loading factors of at least 0.50, indicating construct and convergent validity (Chau 1997). Discriminant validity was also confirmed, since the largest shared variance between the independent constructs was lower than the least average variance extracted (AVE) value for each factor and its measures (Espinoza 1999). Model fitness was verified through acceptable values of Chi-Square, degree of freedom (df), probability (p), and root mean square error of approximation (RMSEA), comparative fit index (CFI), normed fit index (NFI), and goodness of fit index (GFI) when compared with the literature (Chau 1997; Kline 2005, pp.133-144).

As the structural part of the SEM, path analysis was used to verify the validity of the proposed cause-effect relationship model. We used the maximum likelihood procedure of LISREL for the analysis. After several iterations, we found several suggestions from the analysis. We verified these from the theoretical underpinnings and practical orientation in the light of the physician-patient relationship literature (Kao et al., 1998; Hoffman et al., 2014). We also examined correlation matrix of the 10 independent and 1 dependent constructs shown in Appendix A. We verified the significance of the relationships between the 10 constructs as the reasons for physician selection and the dependent variable 'physician selection' by 't' values. This revealed that the four constructs Approach, Reputation, Availability, and Cost were significant for physician selection at the 0.05 level (even at 0.01 level). However, direct causal relationships of the remaining six constructs (Information, Experience, Waiting Time, Location, Supportive to Resource Accessibility, and Drugs and Test Optimization) with Physician Selection were not significant, even at the 0.10 level.

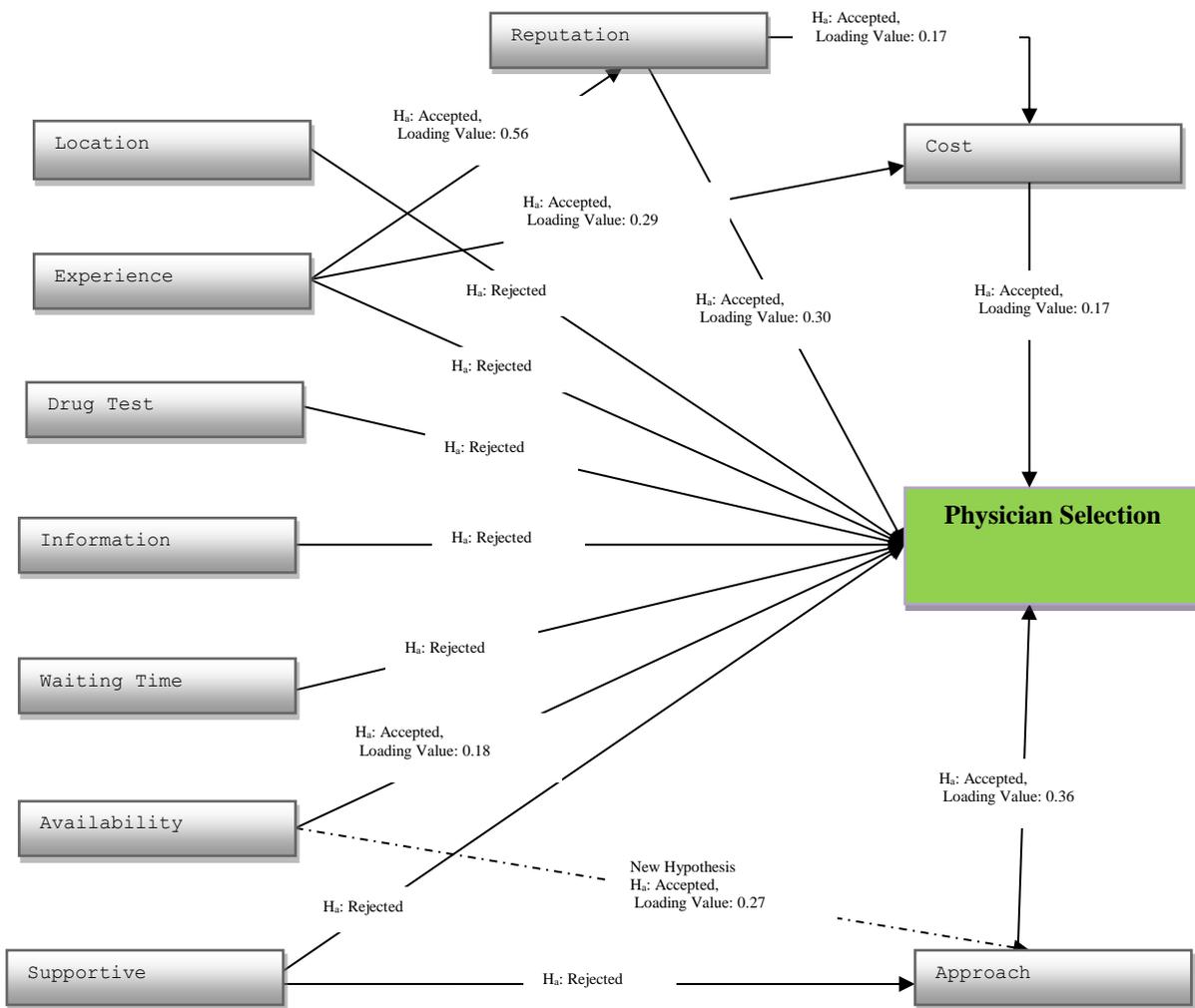


Figure 2: Physician Selection Criteria (PSC) Model with Loading Values

The analysis revealed that our proposed hypothesis, Supportive resource accessibility contributes in developing favorable perception about the Approach of the physician is not significant. Rather, for better model fit, a new relation between Availability of the physician and Approach was suggested. It means, if patients have better perception about the availability of the physician, they also concurrently perceive favorable approach of the physician. This relation was included in the model. After examining correlation matrix and theoretical explanations, we found rhetorical justifications to include this indirect relation. The final PSC model with loadings is shown in Figure 2. Model fitness was verified through acceptable values of Chi-Square, degree of freedom (df), probability (p), and root mean square error of approximation (RMSEA), comparative fit index (CFI), normed fit index (NFI), and goodness of fit index (GFI) when compared with the literature (Chau 1997; Kline 2005, pp.133-144) (shown in Table 2). The squared multiple correlation coefficient (R^2) explaining the amount of variance that the independent constructs Approach, Reputation, Availability, and Cost account for in the dependent variable Physician Selection, is 0.40, indicating that 40% of the variance in physician selection reasons is explained directly by these independent variables. Direct numerical

relations of the independent constructs with dependent constructs and indirect relations with standard deviations, Z-value and p-value are shown in Appendix B.

Table 2: Fit Measures from Path Analyses

Fit Measures	Recommended Values	Model Fitness Values
Chi-square (χ^2)	$p \geq 0.05$	38.28 ($p = 0.09317$)
Degree of Freedom (DF)		28
χ^2/DF	≤ 3.0	1.37
Comparative Fit Index (CFI)	$\geq .90$	0.966
Goodness of Fit Index (GFI)	$\geq .90$	0.956
Adjusted Goodness of Fit Index (AGFI)	$\geq .80$	0.896
RMSEA	< 0.06	0.049
Normed Fit Index (NFI)	$\geq .90$	0.90
Incremental Fit Index (IFI)	$\geq .90$	0.969
Relative Fit Index (RFI)	$\geq .80$	0.80

All the direct and indirect relations of the final accepted PSC model with loading values are shown in Table 3.

Table 3: Model Fitness Values

Constructs/ Independent Variables	Direct Relation with Physician Selection	Interrelations
Approach	Yes (loading value 0.418)	Approach is contributed by Information and Supportive to resource accessibility (33.5% as per LISREL output)
Reputation	Yes (loading value 0.307)	Reputation is contributed to by Experience and Drugs and Test Optimization (15.5% as per LISREL output) Reputation is contributing on Cost leading to Selection. Correlation coefficient of Reputation -Cost is 0.365. So contribution of Reputation to Selection is partially shared by Cost. Consequently, it also has an indirect relationship with Selection through Cost. On Cost, its loading factor is 0.316
Availability	Yes (loading value 0.259)	Availability is contributed by Location and Waiting time (16% as per LISREL output)
Cost	Yes (loading value 0.205)	Cost is contributed by Experience and Reputation (17.5% as per LISREL output)
Experience	No	Correlation coefficient of Experience-Reputation is 0.232. So contribution of Experience to Selection is significantly shared by Reputation. Consequently, it has indirect relation with Selection through

		Reputation. On Reputation, its loading factor is 0.134 Correlation coefficient of Experience - Cost is 0.284. So contribution of Experience to Selection is significantly shared by Cost. Consequently, it also has an indirect relationship with Selection through Cost. On Cost, its loading factor is 0.211
Information	No	Correlation coefficient of Information-Approach is 0.477. So contribution of Information to Selection is significantly shared by Approach. Consequently, it has indirect relation with Selection through Approach. On Approach, its loading factor is 0.401
Waiting Time	No	Correlation coefficient of Waiting Time-Availability is 0.285. So contribution of Waiting Time to Selection is significantly shared by Availability. Consequently, it has an indirect relation with Selection through Availability. On Availability, its loading factor is 0.275
Location	No	Correlation coefficient of Location-Availability is 0.289. So contribution of Location to Selection is significantly shared by Availability. Consequently, it has an indirect relationship with Selection through Availability. On Availability, its loading factor is 0.280
Supportive to Resource Accessibility	No	Correlation coefficient of Supportive to Resource Accessibility - Approach is 0.428. So contribution of 'Supportive to Resource Accessibility' to Selection is significantly shared by Approach. Consequently, it has an indirect relation with Selection through Approach. On Approach, its loading factor is 0.338
Drugs and Test Optimization	No	Correlation coefficient of Drugs and Test Optimization -Reputation is 0.373. So contribution of Drugs and Test Optimization to Selection is significantly shared by Reputation. Consequently, it has an indirect relation with Selection through Reputation. On Reputation, its loading factor is 0.334

5. Results and Discussion

We found from our PSC model that Physician Selection depends primarily and fundamentally on the physician's Reputation, Behavioral Approach to the patient, Availability, and overall Cost of the service. Although, Experience of the physicians and Optimization of drugs and test were assumed to be important criteria for the patients to select a physician, the cause-effect relation indicated through statistical analysis that experience of and drugs and test optimization by the physicians do not have significant contribution in decision making. Rather, these reasons influence the perception of Reputation. Experience also influences the perception of Cost incurred to select a physician. Information and Supportive to resource accessibility provided by the physicians are also insignificant to select a physician by the patients; rather these constructs enhance positive perception about the physicians Approach to the patients. Similarly, the constructs Waiting time required to meet and Location of the physicians do not contribute significantly in making a decision to select a physician over others; rather these two constructs pursue the impression of Availability of the physicians.

Physician Approach to patients is substantially an attempt to evaluate the physician's potential expression during treatment and is mostly a supplementary service. This is the most important reason for patients to select one physician over others. This feeling about a physician's approach is related to the physician's willingness and caring to fulfill patient intrinsic demands. However, patients psychologically perceive better caring attitude (Approach) if they can easily get the access to the physician (Availability).

Reputation is highly influenced by patient emotional evaluation. This is also strengthened by his/her reference group as normative pressure (i.e. the subjective norms of the theory of reasoned action). This reputation judgment is also affected by the physician's experience.

Availability of a physician is measured in terms of accessibility for appointments, service availability outside of office time and during emergencies helps to create positive perceptions about the physician's core competencies and accessibility. This service function is entirely composed of contextual or supplementary service to the original service offered to the patient. From a marketing perspective, this is symmetrical to the selection of a distribution channel where the fundamental concern is not the product/service but how the product/service can be purchased.

The only entirely visible element involving patient preference for a physician is the overall cost to the patient of the physician's service. This is easily measurable, and affective components have little effect on it. However, it is still a supplementary issue stemming from the core service sought by patients. Rationally, this cognitive belief is also affected by the physician's reputation and experience.

Implications of the Results

The results of this study are interesting, important, and have potential values to academics and medical professionals. After refinement of the proposed model through empirical study and statistical analysis, our final PSC model has identified some significant theoretical explanations for academics and professional justifications for practitioners. The findings of this study have significant implications for practice, society, and research. Medical professionals can get deep insight from this study to streamline their attitude toward patients to provide effective service and satisfy them. Without cognitive, emotional, and behavioral motivation, patients do not accept physicians' service whole heartedly. Studies related to physicians' service advocated that patients cannot get quick and effective recovery from any disease if they do not have satisfaction from the service they adopt from the physicians (Audet et al., 2006; Kim et al., 2004).

Implication for Academics

Understanding patient attitudes and perception toward physician selection criteria is a controversial subject and substantially different from conventional consumer behavior in purchasing a product or service. General consumer behavior is typically explained from three perspectives: 1) a decision-making perspective where consumers are deemed to be rational, 2) an experiential perspective where consumers buy from impulse or emotion, or 3) a behavioral influence perspective where consumers are influenced by external forces from their environment. In the light of conventional purchasing behavior, the locus of purchasing decisions that direct the decision making process is to identify how the product/service can fulfill customer reasons for buying the product/service.

For physician selection, the entire decision-making process is propelled by external views of the service, where consumers have little direct knowledge to help to directly evaluate the basic service (e.g. the competence of the physician to treat a health-related problem). From utility theory (Howard & Jagdish 1969), consumers attempt to maximize their resource utility through consumption. In the physician selection scenario, although consumers may strive to maximize utility, this is difficult to achieve through perceptions of a basic knowledge of physician services. Rather, they develop

perceptions through affection (primarily) in the light of the service context, and not the core service content. The controversies can now be approached from the perspective of the empirical findings of this study, through the theoretical paradigms of human psychology, consumer behavior, and sociology.

The physician selection process is basically a type of complex buying behavior. Because this is a health-related problem, its outcome is risky and expensive, and the decision is infrequent. Consumers have to deliberate over the many attributes of different physicians. These attributes have subtle differences which are highly self-expressive, but consumers have little capability and capacity to understand the core competencies of the physicians under consideration.

Consumers develop their beliefs and attitudes through cognitive and affective buying behavior (Kotler 1973; Engel et al. 1973). So marketers need to understand the consumer learning process. But in contradiction to regular complex buying behavior, consumers in this case cannot compare core attributes related to a physician's basic competence to treat a disease through proper diagnosis, administration of laboratory tests, treatment processes, and appropriate recommendation of drugs at the optimum level with minimum time and maximum convenience. Conversely, consumers (patients) attempt to evaluate physician attributes in the light of contextual phenomena, instead of analyzing core competencies (as they do not have that expertise). Therefore, the foundation of attitude in this case is fundamentally dependent on affective and connotative functions. Past experience, general behavior, availability, relative cost, and reference are important reasons for arriving at physician selection conclusions. These (other than costs) are mostly congruent with emotional judgment.

There are potential differences among physicians in terms of professional competence and performance (Brewin 1988; Ong et al. 1995). However, consumers (as patients) can hardly cognitively understand these differences based on physician fundamental/basic service offerings. Consequently, most people cannot perceive any differences among physicians in the light of their core competencies; rather, they attempt to differentiate among physicians based on supplementary services required in conjunction with treatments. These become known through the context, and not the content of the service. These are fundamentally physician service output functions. Thus, patients cannot use physician core competencies to differentiate among physicians. They develop their attitudes toward any specific physician based on the supplementary services which a physician provides. This selection process can therefore also be described through dissonance reducing buying behavior. Here one physician is selected over others through the theoretical aspects of cognitive dissonance theory. Patients may experience severe dissonance for selecting a specific physician if they are cognitively overwhelmed. This dissonance arises mostly from different contextual attributes of these supplementary services which patients need when seeking and getting medical service from a physician.

Implication for Physicians and other Medical Professionals

Physicians, medical administrators, and other supporting service staff can potentially learn from the findings of this study. It is clear that patient intrinsic motivation is the primary motivation in selecting any specific physician. Several seminal studies of physician-patient relations (Brewin & Bradley 1989; Caine et al. 2015; Emanuel & Dubler 1995; Hoffman & McNaughton-Collins 2014; Kao et al. 1998; Ong et al. 1995; Stewart 1995) have found through investigation of practical physician-patient interactions that treatment provided by a physician is more effective and enduring if the physician's

behavior can create a positive impression on the patient. The current study explicitly acknowledges this identification and provides strong evidence that a physician's external approach to patients is the most significant issue for patients seeking medical services. This does not refer to basic medical services, but rather the treatment process, where the physician's behavior and positive attitude has the strongest effect on the patient's decision to choose one physician over others (DiMatteo et al. 2002; Roter et al. 2006).

Some physicians may not care about their approach to patients. They feel this is not related to their core service; rather how they are providing medical treatment to patients to cure their health problems is the only important issue. They may have pragmatic beliefs that behavior, communication, listening to the patient, intrinsic relationships, caring attitude, interaction, and positive interactions with patients—are not related to the process of effective treatment, but a waste of time. Our findings reflecting patient motivations to choose physicians have contradicted with these physician assumptions. Patients do not normally understand the consequences of their medical problems, and gathering relevant information from the Internet may also confuse them. However, most patients have an urge to learn about potential treatments, future consequences, and side effects in detail (Simpson et al., 1991). In this context, a physician's positive and sympathetic approach is highly valued, when information is provided to patients in a simplified form. Negative or pessimistic comments about the consequences of a patient's medical problems is counter to best practice, since imparting a positive attitude is important to the patient's mental state and motivation towards the effectiveness of the treatment (Stewart et al., 2000). Patients also need support from their physicians to be able to get access to them whenever required.

A physician's reputation contributes to the patient selection process (Zolnierek & DiMatteo 2009). This is well known to both practitioners and academics. Consumer attitude in relation to reputation of product/service brand names has an overarching effect on consumer choices. Therefore, physicians must be conscious about their social interactivity, attachments to different hospitals, relationships with people, and medical background records. Positive physician experiences tend to uphold and improve their reputations. Most patients adhere to physicians' prescriptions for medications, diagnostic tests, and other therapies. However, some patients may have unfounded impressions that some physicians prescribe too many drugs or diagnostic tests. This psychological belief may develop further into two negative beliefs: the physician is not capable of diagnosing the symptoms appropriately, or the physician is prescribing too many drugs or tests for personal financial gains. This patient belief will result in questions about the physician's professional and ethical integrity, and a negative attitude toward choosing that physician.

Healthcare service is such an important issue that patients may need to consult a physician at virtually any time (McCarthy, 2015). Therefore, physician availability for appointments and other forms of communication is sensibly crucial to the creation of positive attitudes of patients. But physicians also have a social and family life so anytime availability is not an option. However, a well-designed appointment system and backup physician availability should provide virtual 24/7 service. Geographic location is an important factor for patients in terms of distance and transportation modes, although this is not under the control of the physician. But optimized waiting time in terms of delay in scheduling appointments, waits beyond the scheduled appointment times, and emergency appointments are important in creating positive patient perceptions of the physician's service.

Service costs, in terms of fees, compatibility with insurance policies etc. are a potential consideration for patients in choosing physicians. As for any commodity or service, price is always a concern. Respondents in the study agreed that physicians with more experience and better reputation scan charge higher fees. This agrees with the general marketing view that experience and reputation always increase demand and thus can increase price.

6. Conclusions, Limitations, and Future Research

In the first phase, the authors conducted an exploratory study to conceive general patients' perception regarding their selection criteria about physicians. To reveal generalized opinion of patients as consumers and conceptualize aggregate perception, this study was designed to explore general consumers perception from several countries located in different continents. For this exploratory study, multi-country sample approach has significant potentials (Contractor et al., 2016; Judge et al., 2010). The underlying assumption of this effort was to develop a conceptual framework to study patients decision making in selecting physicians. The study then further conducted an empirical investigation among consumers to validate the proposed theoretical framework derived in the first phase.

Under the assumption mentioned above, as an exploratory investigation, this was an empirical study that gathered the perceptions of people from 15 different countries on physician selection criteria in order to propose a conceptual model. Using these perceptions a preliminary model was developed. A statistical validity test of the model was conducted, based on data collected from people living in a large cosmopolitan city, resulting in a final Physician Selection Criteria (PSC) model that revealed several interesting insights. The outcomes make a substantial contribution to existing literature, and both academics and medical professionals can derive deep insights from the findings.

Marketing studies indicate that the consumer decision making process for buying any general product or service is accomplished through a series of distinct stages that finalize consumer choice of one product/service over competing options (Engel 1973). In a somewhat similar manner, patients may select a physician from a pool of available physicians through a decision making process in order to get service for their health problems. The outcome of personal healthcare service is extremely important to the patient and highly self-expressive with potential differential features, and patients engage in a decision-making process to make the choice of a physician an extended problem solving issue (Howard & Jagdish 1969). As a result, patients exhibit complex buying behavior for this highly differentiated commodity; however, they do not have the capability and capacity to recognize and evaluate the performance of core services provided by a physician. They therefore make decisions on purchasing this service by considering contextual phenomena like supplementary services which are the outcome functions of the core service they are seeking. Therefore they do not depend on the content of the commodity, but on the context in which it is offered.

A physician's approach was found to be the most important criterion for choosing a physician. Physician reputation, availability and easy communicability, and overall cost were also found to be important factors in the creation of perceptions of physicians among patients. These four parameters are the most critical in the physician selection process, and account for 40% of the variance in PSC model outcomes. In addition, experience, information, waiting time, geographic location, supportive resource accessibility, and optimized administration of drugs and tests might contribute to patient attitudes toward specific physicians; however, these parameters have only indirect effects on the

physician selection process by correlating with the four critical parameters. The four critical factors (approach, reputation, availability, and cost) share the variance of the six moderating variables.

In conclusion, the PSC model indicates that if a physician has an empathetic, caring, and positive attitude toward patients, communicates and interacts with them, has trusted references and affiliation with medical hospitals/clinics, is available to patients through appointments and communication facilities, and is not relatively costly, patients will be likely to select him/her to provide their healthcare service. This motivation to choose a particular physician is also very important for effective treatment (Brewin & Bradley 1989; Kao et al. 1998; McCarthy 2015; O'Malley et al. 2015; Peabody et al. 2000; Stewart 1995). In this context, some salient recommendations to physicians are listed below.

1. Try to be positive and caring to patients through your external expressions and verbal communication.
2. Listen carefully to what patients say, even if it is not important for his/her treatment. This will give the patients mental satisfaction which is important for effective treatment.
3. Patients may ask irrational questions about their symptoms and treatments. Although they are not experts, they are normally curious about their health related issues. Explain everything in simple statements with sufficient information.
4. Maintain good relationships socially.
5. Maintain affiliations with reputable hospitals, clinics, and societal members.
6. Patients need physicians when they have health problems. Easily accessible communication channels and physician availability when patients are in need is extremely important.
7. Physician fees and compatibility of patient insurance processing are important issues for patients.
8. Physician skill and ethical integrity are evaluated by the way that medication and therapy prescriptions and diagnostic tests are handled.

This exploratory model study has several limitations. The model was tested in only one (relatively cosmopolitan) city. For proper generalization, it should be tested in countries with differing healthcare service systems. In the first phase of the study, the respondent selection process was not random and the respondents might be biased to some extent as some were connected with one another. This might create potential common method variance (Malhotra et al. 2006). Nevertheless, the collection of opinions from participants in 15 different countries limits the possibility that this problem occurred.

To further validate the PSC model, the study should be replicated in multiple countries with different healthcare systems. Future researchers can use this PSC model to evaluate patient perceptions of specific problems, so that more generalized conclusions can be drawn.

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Appendix A

Correlation Matrix

Experience Reputation Cost Waiting_Time Approach Information Availability Location Supportive Drug_Test Selection

1											
.563	1										
.386	.331	1									
-.174	-.068	-.097	1								
.144	.282	.232	-.102	1							
.081	.135	.183	.017	.116	1						
.063	.179	.167	-.032	.271	.049	1					
-.048	.028	-.095	.085	.020	.053	-.086	1				
-.031	.065	-.030	.050	.041	-.052	.116	-.060	1			
.076	.018	.221	.097	.069	.331	.059	-.025	-.055	1		
.284	.468	.374	-.120	.527	.049	.358	-.043	.010	.088	1	

Appendix B

Reputati = 0.563*Experien, Errorvar.= 0.683 , R² = 0.317

Standerr (0.0689) (0.0805)

Z-values 8.175 8.485

P-values 0.000 0.000

Cost = 0.166*Reputati + 0.292*Experien, Errorvar.= 0.832 , R² = 0.168

Standerr (0.0920) (0.0920) (0.0981)

Z-values 1.810 3.178 8.485

P-values 0.070 0.001 0.000

Approach = 0.270*Availabi + 0.00969*Supporti, Errorvar. = 0.926 , R² = 0.0735

Standerr (0.0808) (0.0808) (0.109)

Z-values 3.342 0.120 8.485

P-values 0.001 0.904 0.000

Selection=.30*Reputati+.167*Cost+.362*Approach-.0187*Experien-.0425*Waiting-.0853*Informat+

Standerr (0.0750) (0.0672) (0.0637) (0.0779) (0.0630) (0.0653)

Z-values 3.996 2.478 5.679 -0.240 -0.675 -1.306

P-values 0.000 0.013 0.000 0.811 0.500 0.192

.183*Availability - 0.0213*Location - 0.0425*Supporti + 0.0409*Drug_Tes, Errorvar.= 0.541, R² = 0.400

Standerr (0.0646) (0.0621) (0.0621) (0.0657) (0.0638)

Z-values 2.837 -0.344 -0.684 0.623 8.485

P-values 0.005 0.731 0.494 0.533 0.000