Impact of participation on behaviour outcomes in health care service

Abstract

Purpose – The purpose of this paper is to examine the effect of patient participation on patient satisfaction and the subsequent effect on patient behaviour outcomes.

Design/methodology/approach – The research employs self-administered survey method to test hypotheses. The convenience sampling approach is used to collected data from 410 patients in metropolitan cities of India. The data are analysed using SmartPLS to test the proposed model.

Findings – The results show that patient participation is positively related to patient satisfaction, and that patient confidence and patient satisfaction moderates the relationship between patient participation and behaviour outcome such as patient gratitude, patient adherence and word of mouth.

Research Limitations/implications-

Practical implications – The results provide interesting insights about the significance of patient participation in positive behaviour outcome. These insights will enable healthcare professionals and government to formulate a suitable policy through which to encourage patient participation in health treatment regimes.

Originality/value – The paper demonstrates the influence of patient participation on behaviour. There has been little research on this aspect in the Indian context to date, so this study offers an important guideline to the healthcare industry in relation to introducing customer empowerment into healthcare regimes.

Keywords – India, patient participation, confidence, satisfaction, gratitude, adherence, word of mouth.

Paper type – Research paper

Introduction

In recent years, patient empowerment has received considerable attention from health professionals in relation to disease and healthcare management. Ideas related to increased patient involvement in healthcare have been high on the agenda in many developed countries in the recent past. Rising consumerism has been responsible for changing the traditional patient–physician relationship landscape. Today consumers are more concerned about their health, and are no longer passive receivers of healthcare services; rather, they want to be active and equal partners in healthcare decision-making.

Patient involvement is based on the philosophy of patient rights to information, co-decision, and co-management (Jacobsen *et al.,* 2008). In healthcare, the patient plays a significant role in identifying and contacting the healthcare professionals for examination, treatment, and follow-up activities. Hence, it is extremely important for the patient to have a positive experience throughout the entire health recovery journey. Therefore, one of the major aims is to deliver healthcare services that take into account patient's perspective, by involving them in the process. Healthcare industry in developed countries is witnessing the growing importance of collaborative interaction between patients and physicians for the successful management of disease (Holman & Kate, 2000). This trend has slowly started to gain ground in emerging economies, like India. Few hospitals in India are consciously becoming customer orientated, with a focus on building their brand image as a part of their corporate strategy. Part of this has involved obtaining quality assurance certifications through accreditation. Advocacy groups and organizations have raised their voices for patient empowerment through participation as an important parameter of quality assurance.

Due to use of internet and social media, patients are becoming increasingly involved and thereby informed. Patient involvement can take several forms, including consumerism and

participation (Tonkens, 2016). Patient choice is the best known, and probably the most widely implemented, variant of patient involvement in healthcare across Europe (Coulter & Magee, 2003). The concept of customer orientation has rapidly gained importance which is evident in the New Zealand context (Ashill, Rod, & Carruthers, 2008). However, healthcare services are often viewed from an inside-out perspective (Bitner & Brown, 2008), with physician been the sole decision maker without considering patients view point. Patients are increasingly getting involved in their own healthcare decision, although there seems to be a clear difference across countries (Coulter & Magee, 2003). The trend of patient participation in healthcare can be seen as an important driver influencing patients' behaviour outcomes. Research has suggested that involving patients through active participation in their healthcare results in positive outcomes (Hibbard *et al.,* 2004). However, modern medicine does not recognize the significance of physician empathy in service interface (Mercer *et al.,* 2001). In developing countries, the evaluation of high-credence services such as healthcare has received limited focus in the literature in terms of satisfaction and behaviour outcomes (Chahal, 2009). Though literature has acknowledged the importance of patients' involvement in service creation, there has been limited research on patient behaviour outcomes. Most of the marketing literature in the last two decades has focused on relationship management; however, there has been very little empirical research on the patient–physician interaction and its impact on subsequent behaviour outcomes. Therefore, the patient–physician relationship merits immediate research attention. The present study aims to identify the relationship between patient–physician interaction and subsequent behaviour outcomes. In this study, patients are referred to as consumers (Kolodinsky, 1995), with the two terms used interchangeably. Also the term behaviour outcome is used to include patients' adherence, gratitude, and word of mouth (WOM).

The remainder of the paper is organized as follows. First, a review of the literature is presented, followed by an outline of the proposed model along with the hypotheses and methodology. Then, an analysis of the results is presented followed by discussion with theoretical and managerial implications. Finally, the paper concludes with limitations, and future research directions.

Conceptual background

The emerging era of consumer empowerment centres on involving consumers in the service-creation process (Prahalad & Ramaswamy, 2004). Many academicians and healthcare professionals have called for a shift from the old-fashioned, paternalistic model to a patient-centred healthcare model (Cegala & Post, 2009). In paternalistic model the doctor carries out the diagnosis and takes the treatment decision on behalf of the patient without hearing the patients' views (Longtin *et al.,* 2010). Active involvement of patients help physician to customized services to suit to patients needs and preferences (Chan *et al.*, 2010). In environment which is cluttered with health-care options, positive customer experiences through mutual understanding with better role clarity becomes critical (Kemp *et al.*, 2014; Dong *et al.*, 2008). Previous studies on patient's participation focused on seller's perspective (Mustak *et al.*, 2013) and organization benefits (Bate & Robert, 2006; Elg *et al.*, 2012). Patient's participation in service innovations has remained uncommon and not much study has been done in health care research (Groene *et al.*, 2009; Sharma *et al.*, 2014).

Healthcare services are characterized by a high degree of credence (Fisk *et al.,* 2007), uncertainty, and risk. Therefore, it is important to know whether patient participation results in a satisfying experience which subsequent influences the patient behaviour outcomes in terms of adherence, gratitude, WOM. Patient participation is a two-way interaction, whereby the patient exercises a certain amount of influence on health decision-making rather than being only a passive receiver of information (Eldh *et al.,* 2010). Participation results in shared decision-making that allows the physician to develop a suitable treatment plan and

consequently make treatment decisions in consultation with the patient (Camacho *et al.,* 2014). Research findings have identified customer participation as an antecedent of customer satisfaction (Yen, 2005) and customer loyalty (Auh *et al.,* 2007). By understanding the merits of patient participation and behaviour outcomes, both public and private healthcare organizations can develop suitable strategies to position themselves as patient-centric firms.

When patients are encouraged to become involved in medical treatment they perceive the physician as a benevolent figure who cares about their health and wellbeing. Participation results in clarity about the health treatment that increases patient confidence and satisfaction. When physicians hear patient expectations, patients feel confident and satisfied which encourages the patient to behaviour in a responsible manner to manage their health problems (Menon *et al.,* 2004). Such empathetic interaction motivates the patient to share his/her health problems. The patient experiences a sense of gratitude for the physician, who is the saviour of life.

This study provides significant insight about relationship between patient participation in diagnosis and treatment decision-making, and positive behaviour outcomes in terms of patient adherence, gratitude, and WOM. The study aims to capture adherence as attitudinal, gratitude as emotional, and WOM as behavioural component of outcome. A comprehensive understanding of the associated value of customer participation in health services would immensely benefit both academicians and practitioners.

Patient participation and confidence

Yim *et al.* (2012) defined customer participation as the extent to which a customer shares information, provides suggestions, and involves themselves in the decision-making process. Cegala and Post (2009) defined patient participation as an act of seeking information and clarification by asking questions, sharing their health case history and assertively expressing their opinions and preferences. This study defines patient participation as "patient involvement in discussions about treatment options and expression of their preferences and concerns during decision-making processes". Through interactive communication, the physician listens and shares information in non-technical language, and hence is able to display empathy which makes patient to feel comfortable. Patient–physician interaction reduces anxiety, thereby enhancing patient confidence (Henderson & Zernike, 2001). A shared decision-making model allows physician to share information and build consensus with the patient about the course of treatment (Charles *et al.,* 1997). By listening to patients' concerns and encouraging them to question, physicians build confidence in the patient (Ware *et al.,* 1984). Hence, the hypothesis is as follows:

H1: Patient participation is positively associated with patient confidence.

Patient confidence and satisfaction

According to Rosalyn Delahanty, confidence is "the assurance that you have the ability to do a task" (Burns, 1992, pg 262). Effective communication between physician and patient fosters confidence in building the relationship (Chen *et al.,* 2008) that result in overall satisfaction (Bowers et al., 1994). Confidence due to interaction reduces apprehension and increases satisfaction (Molina *et al.,* 2007). Confidence strengthens the relationship between the service provider and receiver thereby positively impacting patient satisfaction (Andaleeb, 1996). Confidence also helps to reduce uncertainty and vulnerability, which is essential element for intangible, complex, and technical service such as healthcare (Berry, 1995). Based on the above discussion, the study hypothesizes that:

H2: Patient confidence is positively associated with patient satisfaction.

Patient participation and adherence

In the healthcare sector, adherence is used as a synonym for compliance (Cramer *et al.,* 2008). Adherence is the extent to which a patient takes medications by strictly following the instructions given by their healthcare specialists (Ascher-Svanum *et al.,* 2006). Fairhall *et al.*

(2011), in their practical guide for assessing and treating frailty, defined adherence as the extent to which recommendations are followed. The patient-physician interpersonal dynamics determines the patient's commitment to treatment recommendations (Martin *et al.,* 2005). Literature has provided contradicting views on the benefits of participating in treatment decisions. While some researchers are of the opinion that participation in decision treatment impairs compliance (Camacho *et al.,* 2014), other research findings are against this argument (Lenert, 2009). Dellande *et al.* (2004) research study established a relationship between patient–physician interaction and adherence behaviour. Therefore, the hypothesis is:

H3: Patient participation is positively associated with patient adherence.

Patient confidence and adherence

A study by Cegala *et al.* (2007) found that doctors provide more information to patients who actively raise questions, compared to patients who speak less. The relationship between physician and patient provides a certain sense of assurance regarding the service outcome. Confidence is a relational benefit (Gwinner *et al.,* 1998), that a patient enjoys due to his/her interaction with the physician. The credence characteristic of healthcare services essentially calls for an interpersonal communication with the doctor as a primary driver to build patients' confidence and reduce perceived risk. Confident patient exhibits a greater sense of control over his/her health and greater adherence to the treatment (Hibbard *et al.,* 1999). Furthermore, patients who trust their physician carry out treatment recommendations more empathetically (Martin *et al.,* 2005). In this context, the following hypothesis is proposed:

H4: Patient confidence is positively associated with patient adherence.

Patient participation and satisfaction

Pascoe (1983) envisaged patient satisfaction as reaction to the healthcare received. Patient satisfaction depends on the congruence between what is expected by the patient and what the patient experiences. Hsieh and Hiang (2004) demonstrated a link between positive experiences of the interaction quality and customer satisfaction. Patients prefer supportive, friendly, and caring behaviour of the physician. Interactive communication makes patients feel cared for, and hence makes them satisfied with the encounter. Interactions provide scope for asking question for clarification, which results in satisfaction (William *et al.,* 1998). Patient participation increases and enhances satisfaction (Bitner *et al.,* 1997), as it ensures the patient that he/she is heard and respected during the course of the encounter with the physician (Eldh *et al.,* 2006b). Empathetic interaction between patient and physician results in greater satisfaction with the health treatment (Little *et al.,* 2001). Hence, patient centeredness and empathy during consultations results in satisfaction. Therefore following hypothesis is proposed:

H5: Patient participation is positively associated with patient satisfaction.

Patient satisfaction and adherence

DiMatteo *et al.* (2012) argued that patients become motivated to adhere when they believe in the value of their treatment. Vermeire et al. (2001) established a relationship between satisfaction and adherence. Patients cannot be forced to adhere; rather, an interactive communication between patient and physician improves the patient's understanding of the efficacy of treatment and the importance of medication adherence to the cure. Out of 20 studies (Bharmal *et al.* (2009), 16 demonstrated that the relationship between satisfaction and compliance is statistically significant. Satisfied patient seem to be more inclined towards medical adherence (Cho *et al.,* 2004). Regnault *et al.* (2010) indicated a positive association between satisfaction and adherence. Thus the following hypothesis is proposed:

H6: Patient satisfaction is positively associated with patient adherence.

Patient satisfaction and gratitude

Palmatier *et al.* (2009, pg. 3) define gratitude as "feelings of gratefulness, thankfulness or appreciation for a benefit received". Gratitude is an emotion that arises when the beneficiary

perceives the exchange partner's benevolence in providing for the beneficiary's wellbeing (Fredrickson, 2004). It is felt where the benefit is perceived as valuable and selfless (Wood *et al.,* 2008). Customer gratitude has been defined as a behaviour motivated by a felt obligation to reciprocate to a service provider for the benefits received (Wetzel *et al.,* 2014). Hence, when the patient feels satisfied with the physician who acted in favour of their wellbeing, they feel obliged to express their feeling of gratitude. In this context, the following hypothesis is proposed:

H7: Patient satisfaction is positively associated with patient gratitude.

Patient satisfaction and word of mouth

WOM refers to a recommendation that a consumer makes or shares with others based on their experience (Soderlund, 1998). Researchers have referred to WOM communication as one of the most salient components of customer loyalty (Gremler *et al.,* 2001). Patient satisfaction is a critical determinant of behavioural loyalty like WOM (Faiswal & Niraj, 2011). Responsiveness and empathy for providing customized healthcare services influences the overall service experience, resulting in loyalty (Kolesar & Galbraith, 2000). Patient satisfaction results in positive feedback (Zeithaml, 2000). A satisfied patient feels encouraged to advocate the experience. Thus the following hypothesis is proposed:

H8: Patients' satisfaction is positively associated with WOM.

Research methodology

A questionnaire-based survey was carried out to test and quantify the relationships hypothesized. Field data were collected for two months (from May to June, 2015). Hair et al. (2006) suggested a minimum sample size of 200 numbers for conducting Structural Equation Model. Based on the items in the measurement scale (minimum 1: 10 ratio) as suggested by Hinkin, (2005) the sample size was decided. The convenience sampling technique was used to contact 500 respondents in National Capital Region (NCR), Delhi, India characterized by large and diverse populations. NCR was selected for the study as the region is a conglomeration of wide variety of physicians working in public or private hospitals dealing with different category of patients. An appointment was made with the respondents in advance, and they were then approached at the arranged appointment date and time. The respondents were briefed about the objectives of the survey by the researcher before filling out the questionnaire. The recruitment criteria was that the respondents must be Indian origin, over 18 years of age, must have consulted and interacted with a single physician for treatment in the last year, and received medical prescriptions/instructions on at least more than one occasion. Respondents were asked to recollect the interaction they had with the physician in the last one year to assess their medical experiences. Of the 500 respondents contacted, 410 agreed to participate while the remainder did not qualify based on the preconditions, yielding an overall response rate of 82%. The response rate is considered acceptable and is comparable with previous research in healthcare (Dellande *et al.,* 2004). The questionnaire was written in English and patients participated voluntarily, without receiving any incentive.

Measurement instrument

The research adapted existing scales used in earlier studies. Patient participation was adapted from Ouschan *et al.* (2006); Hennig-Thurau *et al.*'s (2000) scale was used to measure patients' confidence; and patient satisfaction was measured using three items (Oliver, 1993). The study referred to McCullough *et al.,* 2002 to measure patients' gratitude; the patients' adherence scale was adapted from DiMatteo *et al.* (1992); and word of mouth was measured using three items (Magnus, 2006). The questionnaire contained some questions on demographic aspects such as age, gender, income, and education. Three experts from the healthcare industry examined the questionnaire, and it was pre-tested on 60 respondents. Based on the feedback from the healthcare experts and the pre-test result, the wordings of a few items were revised in the final questionnaire for better understanding and clarity.

Respondents were requested to indicate their response to all constructs on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Appendix 1 indicate the items of the questionnaire.

Appendix 1

Analysis and results

The partial least squares (PLS-Graph 2.0) method for measurement of the structural model was used to understand the relations among the variables. This research examined the variables such as patients' participation, confidence, satisfaction, and subsequent behaviour outcomes. The demographic details of the respondents are presented in Table 1. The Cronbach's alpha coefficient for patient participation was 0.82; for patient confidence was 0.78; for patient satisfaction was 0.70; for patient adherence was 0.70; for patient gratitude was 0.73; and for WOM was 0.71. All the values exceeded the minimum level of 0.70 (Hair *et al.,* 2010), which suggests adequate reliability for all the multi-item constructs used in this study.

Table-1
Demographic Profile of Respondents

Measurement model validation

The measurement model was tested by running a reliability and validity test. Table 2 shows the composite reliability (CR), average variance explained (AVE) and Cronbach alpha (CA) for each latent variable. The composite reliability for each latent variable was found to be greater than 0.80, while the AVE was greater than 0.50; this indicates strong reliability and convergent validity. Table 3 presents the ratio of the square root of AVE of each latent variable and the correlation coefficients between each variable. The diagonal elements in parentheses are greater than the entries in corresponding rows and columns, which indicates discriminate validity. As suggested by MacKenzie and Podsakoff (2012), this study considered common method bias by designing the questionnaire carefully and arranging the order of questions appropriately. This study did not ask the respondents about their confidential and personal information. The confidentiality was maintained by reporting the results at an aggregate level. Thus, common method bias was not an issue in this study. The value of goodness of fit index (GoF) is 0.48, which is acceptable (Wetzels et al., 2009).

Table-2
Composite Reliability and AVE

Table-3
Correlations of the latent variables and the square root of AVE

Structural model testing

Figure 1 summarizes the results of the structural model test. Table 4 indicates out of eight paths examined, six were found to be significant at $p < 0.001$ and one path was significant at $p < 0.01$. In particular, the path coefficient of patient confidence to patient satisfaction was the highest (β=0.54). However, the path coefficient of patient participation to patient confidence (β =0.30, t = 4.56), patient confidence to patient adherence (β =0.35, t = 5.61), patient confidence to patient satisfaction (β=0.54, t = 8.99), patient satisfaction to patient gratitude (β =0.25, t = 5.86), and patient satisfaction to word of mouth (β =0.20, t = 3.39), and patient participation to patient satisfaction (β =0.29, t = 4.19) were found to be significant at p

< 0.001, while patient satisfaction to patient adherence (β =0.45, t = 2.61), was found significant at p < 0.01. However, the path coefficient of patient participation to patient adherence (β = 0.06, t = 1.45) was found not to be significant. All hypotheses, from H1 to H8 were supported except H3 wherein patient participation to patient adherence was found not to be significant. In the model, patient participation explained 37% of the variance in patient confidence, and 38% of the variance in patient satisfaction. Patient participation, confidence, and satisfaction together explained 40% of the variance in patient adherence, showing that patient participation, confidence, and satisfaction were the major antecedents of patient adherence. Patient satisfaction explained 31% of the variation in patient gratitude and 30% of the variation in WOM. However, the relationship between patient participation and patient adherence without patient confidence and satisfaction was significant (β =0.14, p < 0.001). The links between patient participation and confidence (β =0.30, p < 0.001) and between patient participation and satisfaction (β =0.29, p < 0.001) were both significant. When patient adherence was regressed on patient participation, confidence and satisfaction, the link between patient confidence and adherence was no longer significant (β =0.007), indicating that patient confidence and satisfaction mediate the effect of patient participation on adherence.

Table-4
Path Coefficients

Figure 1
Proposed Model Tested

Discussion

The study analyses the effect of patients' participation on their behaviour outcomes through patient confidence and satisfaction. This study's contribution to the literature lies in its evaluation of how patients' participation can impact their behaviour outcomes, and explanting the reason behind such behaviour. The study tested the proposed hypotheses regarding the relationships between the constructs patient participation, confidence, satisfaction, and behaviour outcomes. The results of the study suggest that patient participation is positively associated with confidence and satisfaction. A possible reason for this is that patient-physician interaction develops clarity and builds confidence, resulting in satisfaction. Hence, encouraging patients to share information about their current health status, and to openly express the risk apprehensions and the desired goals, are of paramount importance in building patients' confidence. The results support the findings of previous research that confirmed the relationship between physician's information sharing and patient satisfaction (Cornstock, 1980). The result also supports previous work that has shown a positive effect of customer participation on customer satisfaction (Dellande *et al.,* 2004).

The study result indicated that confidence and satisfaction mediate the effect of patient participation on adherence. This supports the argument by Chan *et al.* (2010) that physicians should proactively try to facilitate meaningful interaction through discussions with patients to stimulate patient confidence in maintaining their good health. This supports the argument by Tarn *et al.* (2006) that an empathetic physicians who considers patients' cultural sentiments and language while explaining the benefits and side effects of various treatment gains patients' confidence. The finding supports Hojat *et al.* (2002), who found that empathetic interpersonal communication results in satisfaction, which in turn generates a tendency in patients to comply. Patient-physician interaction provides clarity regarding various alternative treatment plans, which increases patient's confidence and conviction regarding the

importance of adherence for effective management of their disease. Such interaction makes the patient to feel satisfied ultimately leading to adherence.

The study results indicated positive relation between participation and behaviour outcomes (in terms of adherence, gratitude, and WOM). The finding of the study confirms with the previous study that found customer satisfaction to be a critical determinant of word of mouth (Faiswal & Niraj, 2011). Similar to the current research, Jones and Reynolds (2006) found a positive relationship between satisfaction and customer loyalty. Gibson (2005b), in a study on the hospitality industry, found that satisfied consumers provide positive feedback regarding their experiences to family or friends. The finding is consistent with the reciprocity norm of social exchange theory (Gouldner, 1960), which explains gratitude as an expression of obligation to the service provider as reciprocal to the benefits obtained (Bartlett & DeSteno, 2006).

Implications

The research study and its theoretical basis on patients' participation have crucial implications for the emergent literatures on customer empowerment. The present study factored in adherences as attitudinal, gratitude as emotional, and WOM as behavioural components of outcome, and thereby complements the traditional loyalty model, which takes into account only attitudinal and behavioural components. This study has contributed to the theoretical framework by offering an alternative perspective by incorporating attitudinal, emotional, and behavioural outcome, thereby enriching our understanding of consumer behaviour.

Marketing Implication

The study results have relevant practical implications for healthcare industries. With growing competition hospitals and clinics are striving hard to achieve service excellence. The customer role is critical in the service delivery process. If patients are not encouraged to participate, there is every chance that the service delivered will be below expectation. This necessitates encouraging patients to discuss with their physicians about their current health condition and symptoms, share knowledge and feelings about potential treatment plan, and express their physiological discomfort with particular treatment option, therapy, and its procedures. The healthcare industry must be cognizant about patients' key role in the delivery of healthcare services.

Health counselling centres should be set up to educate and encourage patients to take charge of their health and wellbeing. These centres should organize workshops and seminars 'to encourage patient involvement for effective patient–physician dialogue. Patient should be briefed about how to share their health history, what questions to ask, how to seek clarifications while interacting with the physician. In the era of customer empowerment, healthcare professionals have no other option but to embrace patient participation. For instance, Mayo Clinic's Centre for Innovation nurtures a culture of encouraging physicians to think and act like designers, in order to provide customized healthcare solutions through patients' involvement for enhancing patient experience (Salter, 2006).

In the face of increasing competition, hospitals are under pressure to build their brand image. Few reputed hospitals in India are now in the league for acquiring accreditations. Therefore patient satisfaction index is becoming one of the most significant parameter for accreditation. Physicians are under pressure to improve their service delivery performance. This necessitates encouraging patient participation for joint decision-making on diagnosis and treatment plans. Hospitals failing to maintain a minimum and consistent rating on the patient satisfaction index should be subjected to public scrutiny and regulatory measures. In India, hospitals such as Medanta are now using mass media for brand promotion. Hospitals are emphasizing on CURE through CARE and PARTICIPATION in their promotion message.

One of the major challenges for any hospital administrator is to lower cost by delivering high-quality services. Satisfied and loyal customers display confidence and trust in the service provider and remain committed to the organization. A large base of satisfied and loyal customers leads to an increase in their market share and profitability, and reduces consumer acquisition cost. Satisfied patients' may share their experiences, generating positive WOM (Zeithaml & Bitner, 2000), which lowers the cost associated with acquiring new patients' (Powers & Bendall-Lyon, 2003). Hospital administrators should make provisions for patients to upload or post their ratings, reviews and comments on hospital websites. For example, a video of a well-informed patient, who was able to effectively win over the disease due to interactive dialogue and involvement can be uploaded on the hospital website. For example Patients LikeMe website contains educative videos and stories on the experience of patients who have undergone successful treatment. Such patients' generated contents will be more credible as compared to market generated contents, particularly for healthcare services. These forums can also be used to express gratitude to the physicians.

Implications for Healthcare Industry

In reality most healthcare professionals follow a shortcut and cost-saving approach that supports quick and focused treatments, leaving little room for a participatory approach. Many physicians are not in favour of encouraging a patient-centred communication approach that would help patients to better understand and appreciate the treatment options to cure the disease. Physicians need sufficient time and empathy to encourage patients to voice their concerns, before prescribing the most befitting health treatment plans. Thus, healthcare policy makers need to create provisions for physicians to develop the mind sets and required skills. This would call for policy guidelines relating to recruitment, job design and employee reward structures based on performance based incentives. Each hospital should be instructed to include social abilities and tendencies to facilitate interpersonal relation as a prerequisite for appointing new employees. Existing employees should be confirmed and promoted based on the parameter of helping and encouraging patients in the co-creation effort. Adopting a culture that encourages participation would result in building confidence and patient compliance, which would eventually reduce healthcare costs. Hospital administrators should be encouraged to develop interventions to foster patient-centred healthcare, and encourage patient-physician collaboration in decision-making. Medical curricula should incorporate a special module on patient–physician interactions for the success of treatment plans. Such modules should include topics like health care decision-making in consultation with patients, instructions on diet and physiotherapy as the part of treatment plan etc. Healthcare professionals and organizations should be encouraged to nurture the culture of patient participation as a part of their service delivery process. Facilitating patients to find an appropriate treatment through interactive dialogue would ultimately result in patient adherence that would save healthcare costs approximately $7,800 per patient annually (Roebuck *et al.,* 2011). Such behaviour outcomes will result in rich dividends, such as increased customer base and reduced customer acquisition cost. Cultures that encourage customer participation can become a source of sustainable competitive advantage that will be difficult for competitors to replicate (Bettencourt *et al.,* 2002).

Limitations and future research

This research provides new insights into consumer behaviour, more specifically behaviour outcomes in healthcare. Its limitations, related to the methodology, are acknowledged herein and suggestions are offered for future research.

First, the study was limited to a small sample which may somewhat limit generalization of the findings. However, the findings, based on primary data, are insightful. Second, the current study was cross-sectional in nature, whereas a longitudinal study could had measured changes in perceptions over an extended time period. Third, the current study incorporated

only the patient's viewpoint; future research could aim to capture the viewpoint of physicians and other healthcare professionals such as nurses, and hospital administrators to provide deeper insights into healthcare behaviour. Also the study can be extended by comparing two groups of patient active versus passive participation to find out the impact on patient's behaviour outcomes. Fourth, the need and expectations of patients are not homogeneous, and depend on their personality and cultural settings. Therefore, cross-cultural analysis could be an interesting aspect to explore. Fifth, communication between a patient and physician happens across different phases of the consulting cycle, such as introduction and case history, physical examination for diagnosis, treatment, and prognosis. Practitioners and academicians would benefit from a more focused study on patients' involvement at different stages of healthcare consulting, for instance during preadmission, processing, and post-discharge. Lastly, irrespective of the category or industry, it is necessary for every service provider to think seriously about how to facilitate customer participation as the tool for achieving service excellence. Hence, replication of the study in other high-involvement, high-contact service contexts, such as financial services, would increase the validity of the research model and its application beyond the healthcare industry.

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Table-1
Demographic Profile of Respondents

Demographics	Percentage
Gender	
Male	67.4
Female	32.6
Age	
21-30 years	46.8
31-40 years	22.9
41-50 years	14.4
51 years or above	15.9
Education	
Graduate	35.6
Post Graduate	64.4
Monthly Income	
< Rs 50 000*	11.5
Rs 50001 - 1 lakh	27.5
1 lakh - 1.5 lakh	43.0
1.5 lakh - 2 lakh	18.0

*Note * On 12 Feb 2016 1 Dollar is equal to 68.22 Rupee*
Source:https://www.google.co.in/?gfe_rd=cr&ei=iKW9VvSBDvKK8QfdvpGwCw&gws_rd=ssl#q=1+dollar+is+equal+to+how+many+inr

Table-2
Composite Reliability and AVE

Latent Variable	AVE	Composite Reliability	Cronbach Alpha
PP	0.58	0.87	0.82
PC	0.70	0.87	0.78
PS	0.73	0.85	0.70
PA	0.63	0.83	0.70
PG	0.65	0.85	0.73
WOM	0.77	0.87	0.71

Table-3
Correlations of the latent variables and the square root of AVE

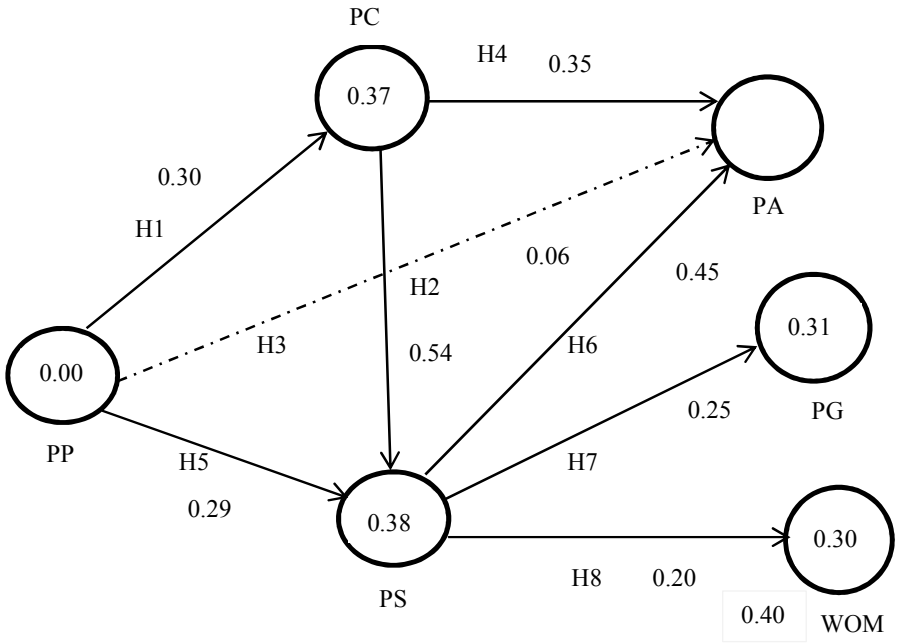
	PP	PC	PS	PA	PG	WOM
PP	**(0.76)**					
PC	0.31	**(0.84)**				
PS	0.31	0.60	**(0.85)**			
PA	0.21	0.44	0.36	**(0.79)**		
PG	0.30	0.34	0.45	0.30	**(0.81)**	
WOM	0.33	0.33	0.29	0.26	0.27	**(0.88)**

Table-4
Path Coefficients

Path	β	*t*	Sig	Hypotheses Supported
H1: Patient participation → Patient confidence	0.30	4.5691	**	Supported
H2: Patient confidence → Patient satisfaction	0.54	8.9963	**	Supported
H3: Patient participation →Patient adherence	0.06	1.453	**NS**	Not Supported
H4: Patient confidence → Patient adherence	0.35	5.6172	**	Supported
H5: Patient participation → Patient satisfaction	0.29	4.1916	**	Supported
H6: Patient satisfaction → Patient adherence	0.45	2.6178	*	Supported
H7: Patient satisfaction → Patient gratitude	0.25	5.8608	**	Supported
H8: Patient satisfaction →Word of mouth	0.20	3.3966	**	Supported

*Note: * $p < 0.01$, ** $p < 0.001$*

Figure 1
Proposed Model Tested



PP=Patient Participation, PC=Patient Confidence, PS=Patient Satisfaction, PA=Patient Adherence, PG=Patient Gratitude, WOM=Word of Mouth

Appendix -1

Patient Participation (Ouschan et al. 2006) I keep a record of my progress to inform my doctor I discuss alternative care with my doctor I discuss information received from other sources (e.g. friends, media) with my doctor I ask a lot of questions during my consultations I direct my doctor on what need to be addressed I have input in the choice of treatment I fully inform the doctor about my concerns
Patient Satisfaction (Oliver 1993) Overall, my doctor at the clinic/hospital has been very helpful to me I am pleased with the way I was treated at the clinic/hospital I am very satisfied with the attention given to by my doctor at the clinic/hospital I am very satisfied with my experience at the clinic/hospital
Patients Confidence (Hennig-Thurau et al., 2000) I have more confidence that the service will be performed correctly by the doctor I believe there is less risk that something will go wrong I get the doctor highest level of service
Word-of-mouth intentions (Magnus, 2006) I will recommend other persons to visit the doctor I will talk about the doctor with other persons My visits to the doctor will be a natural topic of conversation for me
Patients Gratitude (McCullough, Emmons, and Tsang 2002) I would be grateful to the doctor I would be thankful to the doctor I would be appreciative of the doctor
Adherence General Adherence (DiMatteo et al., 1992) I find it easy to do the things that my doctor suggests. I am able to do what is necessary to follow my doctor's advice. I follow my doctor's suggestions. I am usually willing to do what my doctor advises me to do.