

Measuring Influence of Patient Satisfaction and Commitment on Word of Mouth: The Case of Not for Profit Health Care Services

Dr. Nischay Kumar Upmannyu¹, Dr. Raturaj Baber², Dr. Amit Kumar³,
Dr. Promila Verma⁴, Dr. Rhythm⁵, Esmita Jain⁶, Surbhi Arora⁷
& Jiban Kumar Parida⁸

ABSTRACT

The objective of the current study was to investigate the relationship between patient satisfaction and word of mouth and patient commitment and word of mouth in not for profit health care services. The data was collected from total 173 respondents 73 respondents (42%) were males, 100 respondents (58%) were females through standardized questionnaire. Collected data from various demographic segments was analyzed using Cronbach's alpha reliability and Factor analysis analysis test was applied. Kolmogorov-Smirnov and Shapiro-Wilk was applied to check the normality of data and data was found normally distributed. The result of linear regression indicated both patient commitment and satisfaction has significant and positive impact on word of mouth.

Keyword: *Patient Satisfaction, Word of Mouth, Patient Commitment.*

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- 1 Assistant Professor, Prestige Institute of Management, Gwalior, M.P.
 - 2 Associate Professor, Prestige Institute of Management, Gwalior, M.P.
 - 3 Assistant Professor, GLA University, Mathura, U.P.
 - 4 Professor, Department of Conservative Dentistry & Endodontics, Faculty of Dental Science, King George Medical Univeristy, Lucknow, U.P.
 - 5 Assistant professor, Department of Conservative Dentistry & Endodontics, Faculty of Dental Science, King George Medical Univeristy, Lucknow, U.P.
 - 6 Research Scholor, Jiwaji University, M.P.
 - 7 Students, Prestige Institute of Management, Gwalior, M.P.
 - 8 Students, Mphil. Economics, Dayalbagh Educational Society, Agra, U.P.

INTRODUCTION

Word of mouth (WOM) has been widely accepted as a precursor which affects behaviour of the consumer. Word of mouth has been found seven times more effective than traditional tools of communication (Katz and Lazarsfeld, 1955). Day (1971) also found that word of mouth was nine times more effective than traditional communication mediums which were used to advertise. Murray (1991) thoroughly explained this phenomena's appearance due to the reason that personal sources are viewed more trustworthy. The researches and availability of literature dates back to 4 decades and is considered an important concept in the field of consumer behaviour. The research has suffered from four shortcomings.

First, researchers have tended to adopt a rather simplistic conceptualization of WOM, focusing primarily on the favourableness of the WOM communication (Arndt 1968; Bone 1995; Burzynski and Bayer 1977; Herr, Kardes, and Kim 1991; Swan and Oliver 1989).

Second, the primary focus of these studies is not on measure the primary focus of these studies is not on measure develop That is, existing measures are not developed and empirically validated using a systematic process (e.g., Churchill 1979), and the ad hoc measures frequently used (E. Anderson 1998; Arndt 1968; Bone 1995; Burzynski and Bayer 1977; File, Cermak, and Prince 1994; Herr, Kardes, and Kim 1991; Richins 1983; Singh 1990; Swan and Oliver 1989) are insufficient to capture the potential richness of the WOM construct.

Health care organizations are becoming more conscious about satisfying the patients as services are becoming more customer-oriented. Quality improvement and meeting the expectations of patients are becoming the order of the day for many of them. Profitability of a health organization is directly linked with the extent to which its patients are satisfied as invariably a satisfied patient would provide for invaluable word of mouth publicity for that facility and the case of a health organization is pretty different from other organizations because unlike traditional media sources which are quite effective in brand building, in the case of health care services it is the satisfied patient-driven word of mouth publicity which does the trick for them. This is the point which needs to be proven in the present study as well.

However, the service providers in the present case are not driven by profits as they are not-for-profit organizations and as such the scenario changes dramatically as monetary motivation goes out of the context. Hence, the implications of the findings of the present study would go beyond the profitability motive (and the resulting patient satisfaction-driven word of mouth publicity for that service provider) of extending health services and would explore whether commitment of the health care provider, in the forms of higher sacrificial commitment as well as affection commitment, along with patient satisfaction lead to word of mouth publicity for a not-for-profit organization.

What assumes significance here is the fact that once you take money out of the context, it becomes the case for most of the government hospitals, charitable trust hospitals and those maintained by such societies as Red Cross, YMCA, Rotary Club, etc. A major chunk of our population, almost two-third, still lives on meager income (less than hundred rupees daily) hence it is beyond their means to avail private health care services in India which leaves them at the mercy of government and charitable hospitals. For them, patient satisfaction is pretty much an alien concept and there is hardly anyone who pays heed to their condition and difficulties which they face in such places.

Even the commitment of the service providers in such facilities comes under question. With money being out of the question (as compared to the profit-driven health organizations), the commitment arising out of affection and sacrificial commitment are to be ascertained.

At the same time, the sources of these not-for-profit organizations, government being one of the major players here, find it really hard to keep the work-force on their toes owing to the crunch of funds as well as proper utilization of the existing funds on account of the lethargic attitude of the service providers of not-for-profit health care organizations as compared to the for-profit ones. It is not to say that word of mouth publicity arising out of commitment and patient satisfaction is not applicable as such. Studies which link together the commitment as patient satisfaction with word of mouth publicity in the context of not-for-profit organizations are rare as compared to those focused on the for-profit organizations which is the focus of the present study.

LITERATURE REVIEW

As per Duggirala et al, (2008), it is the balance between the birth and death rates of a country coupled with low occurrence of disease which are paramount for the success of any country. Because of this, the health services provided in a country assume significance proportion. The dramatic changes in the environment in which we live today warrant increased attention towards the health care industry.

As per Torres and Guo (2004), on the virtue of better quality of services, health care service providers intend to improve customer satisfaction.

Hasin et al (2001) have listed quite a few factors which are the reasons behind patient satisfaction in a health care service, them being drug, doctor, prompt service, affordability, duration of treatment, distance between the patient's place and the facility, proper diagnosis, etc. It wouldn't be an exaggeration to say that the success of a health care organization depends to a great extent on patient satisfaction.

Zineldin (2006) asserts that better health care services, along with continuous improvement and patient's expectation, invariably lead to patient satisfaction. This is very much appropriate in the sense that for a patient to be satisfied his expectation should be met and constant strides should be made for improving the facility being

provided. At the same time, it is quite difficult to measure the trust level of patient which is invariably related to patient satisfaction. The more satisfied the patient would be, the higher would be his trust on the health service provider and vice-versa. At the same time, the unfairness arising out of the unjust treatment of patients by the health service provider can destroy the trust of the patient completely as per Seiders and Berry (1998) and it is extremely difficult to restore the same in the field of health services which is unlike any other service provided.

Sheth (1971) has asserted that Word of Mouth plays a far more defining role than advertising when it comes to raising awareness related to the product and acts as a crucial factor when it comes to sampling of the product by the customer. The power of Word of Mouth could be gauged from the study conducted by Day (1971) who concluded that Word of Mouth was nine times more effective as compared to advertising when it came to converting neutral or even negative receptivity towards a particular product into a positive one.

Word of Mouth could swing consumer attitude either way with the negative one doing more harm than the good caused by positive one (Arndt, 1967). In fact, Arndt (1967) is considered by many as the pioneer in the field of Word of Mouth and measuring its influence in the field of consumer behavior. It is interesting to note that what corporates might consider as negative Word of Mouth could end up being extremely positive from the consumer's point of view. Case in point, the recent furor which surrounded the presence of beyond-permissible limit of MSG and Lead. It might have devastated the image of Nestle in India but it has been taken extremely positive by the customers in that they completely shunned the product leading to massive losses for Maggi and Nestle. Such is the significance of WoM that in many instances it is considered to be more powerful than even neutral print media.

The quality of service offered at a health organization can be studied in similar manner as that of any other service. Parasuraman et al. (1988) suggests stimulating alternative as per their customer-based approach which has resulted in conceptualizing and thereby measuring the quality of service being rendered. Rational patients would go do such service providers whom they perceive as having the best value (Yousuf et al., 1996).

Patients always have the desire to avail the best possible health care facility at their disposal. However, the dispensation of the same becomes somewhat a challenge in the not-for-profit health organizations on the premise that money as the motivating factor takes a back seat and intent to work for the society comes to the fore. The commitment which needs to be there for working in the not-for-profit health sector is a rare commodity to be found.

The present study would take into consideration the two aspects related to commitment along with the dimension of patient satisfaction to ascertain whether they lead to word of mouth.

OBJECTIVES OF THE STUDY

Based upon the literature review and research gap identified, following objectives were determined for the study:-

- To re-standardize the word of mouth measures of word of mouth in context of not for profit health care services.
- To identify the underlying factors of word of mouth, patient satisfaction and commitment in context of not for profit health care services
- To examine the causal relationship between patient satisfaction and word of mouth in not for profit health care services.
- To examine the causal relationship between patient commitment and word of mouth in not for profit health care services.

RESEARCH METHODOLOGY

Population for the study were the patients who are undergoing or have undergone the treatment at not for profit health care centres. Non-Probability purposive sampling method was used to collect the data.

Tools Used for Data Collection

Standardized self-administered questionnaire was utilized to collect the data. The scale utilized to record responses for commitment was derived from Schechter (1985) and was evaluated by Mayer and Schoorman (1992). Patient satisfaction scale was derived from Grogan, et.al (2000). All of the standardized scales were tailored according to the context in which the study was conducted.

The responses were recorded in the questionnaire through 7 point Likert Type Scale for word of mouth, patient satisfaction and commitment, and the anchors were, 1= Strongly Disagree to 7= Strongly agree.

Tools of Data Analysis

Normality tests were applied to check skewness in data and detect outliers. Cronbach's Alpha Coefficient was utilized to examine the reliability of the dataset. Factor analysis was applied to identify underlying factors of word of mouth, patient satisfaction and commitment). Regression was utilized to examine causal relationship between patient satisfaction and commitment as independent variable and word of mouth as dependent variable.

Proposed Hypotheses

On the basis of reviewed literature and objectives set, following hypotheses have been proposed by the researchers:-

H₁. Patient commitment significantly effects word of mouth for not for profit health care centres.

H₂. Patient satisfaction significantly effects word of mouth for not for profit health care centres.

Data Analysis

This section of the articles analyses the data collected from the respondents for the study. The dataset has been analysed using SPSS 21.0. Initially, in total 200 questionnaires were distributed among the desired respondents. 190 were returned by the respondents and 175 (87.5%) were found to be usable. According to Babbie (1990) response rate over 60% is acceptable and is considered good in the field of social sciences.

Profile of the Respondents

This section of the data analysis provides information about the profile of the respondents of the study.

Table 1: Frequency Table

Gender	Male	%age	Female	%age
	73	42%	100	58%
Reason for Visit	Primary Health Care	%age	Secondary Health Care	%age
	131	76%	42	24%
Age Group	30 years and below	%age	31 years and above	%age
	148	85%	25	15%
N=173				

From examination of table 1, it can be identified that from total 173 respondents 73 respondents (42%) were males, 100 respondents (58%) were females. 131 respondents (76%) visited not for profit health care centres for primary health care and 42 respondents (24%) visited not for profit health care centres for secondary health care. 148 respondents (85%) were aged 30 years or were below, only 25 respondents (15%) were aged above 31 years and above.

Normality Analysis

Table 2: Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Gender	.044	173	.200 [*]	.985	173	.058
* . This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Table 2 displays normality analysis of the data collected, through the process of detecting outliers, 1 outlier was identified and responses were removed from the data which was to be analysed. From K-S test of normality ($p=.200$) and Shapiro-Wilks test of normality ($p= 0.58$). Both of the tests for normality indicate that the data was normal and can be further used for analysis.

Reliability Coefficient

This section of the data analysis examines the reliability of the collected data from the respondents.

Table 3: Reliability Coefficients

Variable	No. of Items	Cronbach's Alpha Coefficient
Word of Mouth	13	0.699
Patient Commitment	24	0.723
Patient Satisfaction	14	0.723

From the table 2, it can be assumed from the Cronbach's Alpha reliability coefficient of the examined variables, word of mouth ($\alpha = 0.699$), patient commitment ($\alpha = 0.723$) and patient satisfaction ($\alpha= 0.723$) indicate acceptable reliability coefficient. The data set used in the study has reliability coefficient more than 0.6, thus indicating that the data collection is reliable. The data set had reliability coefficient of 0.711. Thus the reliability can be termed good and data set can be further analysed.

Factor Analysis of Word of Mouth

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.795
Bartlett's Test of Sphericity	Approx. Chi-Square	641.611
	Df	78
	Sig.	.000

Table 4 indicates the Kaiser-Meyer-Olkin measure of sampling adequacy was .641, above the recommended value of .6, and Bartlett's test of sphericity was significant

(df= (78) = 641.611, $p < .05$). The diagonals of the anti-image correlation matrix were all over .5, supporting the inclusion of each item in the factor analysis.

Principle Component Analysis of Word of Mouth

Table 5: Principle Component Analysis of Word of Mouth

Factor	Percent Variance	Eigen Values	Item Converged	Factor Loading
Factor 1	25.488	3.308	Occasion to mention the name of this	.900
			This charitable health care organizations to others	.888
			I tend to talk about the organization in great detail.	.883
			Since I have been with this charitable health care organizations	.871
Factor 2	10.665	1.386	I've told more people about this charitable health care organizations	.786
			I mention this charitable health care organizations to others quite frequently	.689
Factor 3	9.978	1.297	I seldom miss an opportunity to tell others about this charitable health care organizations.	.743
			I've told very few people about this charitable health care organizations	.692
Factor 4	9.957	1.294	have only good things to say about this charitable health care organizations	.689
			Although I use this charitable health care organizations, I tell others that I do not recommend it	.614
			Once I get talking about this charitable health care organizations, it's hard for me to stop	.547
Factor 5	9.397	1.222	I am proud to tell others that I use this charitable health care organizations	.748
			In general, I do not speak favourably about this charitable health care organizations	.742

Factor Analysis of Patient Commitment

Table 6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.677
Bartlett's Test of Sphericity	Approx. Chi-Square	1142.202
	Df	276
	Sig.	.000

Table 6 indicates the Kaiser-Meyer-Olkin measure of sampling adequacy was .677, above the recommended value of .6, and Bartlett's test of sphericity was significant (df= (276) = 1142.202, $p < .05$). The diagonals of the anti-image correlation matrix were all over .5, supporting the inclusion of each item in the factor analysis.

Principle Component Analysis of Patient Commitment

Table 7: Principle Component Analysis of Patient Commitment

Factor	Percent Variance	Eigen Values	Item Converged	Factor Loading
Factor 1	14.293	3.43	If I left this charitable health care organizations for another charitable health care organizations, it would be hard to come back	.918
			If I decided to stop doing business with this charitable health care organizations, it would be difficult to explain to my friends and my family	.910
			Many changes would have to occur in my present circumstances to cause me to stop doing business with this charitable health care organizations.	.897
			There are certain costs associated with switching to another charitable health care organizations.	.871
Factor 2	7.517	1.804	This charitable health care organizations understands my needs.	.663
			The longer I stay with this charitable health care organizations, the harder it is to leave.	.644
			It would be difficult for me to adapt to a new charitable health care organizations	.621
Factor 3	7.432	1.784	I care about the fate of this charitable health care organizations	.723
			I like this charitable health care organizations	.566
			This is a good charitable health care organizations to use	.552
			I like the way this charitable health care organizations operates	.494
Factor 4	7.346	1.763	I want to help this charitable health care organizations achieve its goals.	.757
			Doing business with this charitable health care organizations is enjoyable	.682
			I have a special relationship with this charitable health care organizations.	.490
			I do business with this charitable health care organizations because I like it.	.467
Factor 5	7.177	1.723	I am proud that I use the services of this organization.	.758
			I usually agree with this organization’s policies and procedures on important matters.	.622
			This organization inspires the best in me in the way of being a good customer	.481
Factor 6	6.399	1.536	I continue to do business with this charitable health care organizations because it would be difficult to make a change	.815
			For me, this is one of the best charitable health care organizations of its kind.	.600
Factor 7	5.914	1.419	I would give up a lot if I stopped doing business with this charitable health care organizations.	.833
			If I were in charge of this charitable health care organizations, I wouldn’t run it any differently.	.498

Factor Analysis of Patient Satisfaction

Table 8: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.731
Bartlett's Test of Sphericity	Approx. Chi-Square	602.941
	Df	91
	Sig.	.000

Table 8 indicates the Kaiser-Meyer-Olkin measure of sampling adequacy was .731, above the recommended value of .6, and Bartlett's test of sphericity was significant ($df = (91) = 602.941$, $p < .05$). The diagonals of the anti-image correlation matrix were all over .5, supporting the inclusion of each item in the factor analysis.

Principle Component Analysis of Patient Satisfaction

Table 9: Principle Component Analysis of Patient Satisfaction

Factor	Percent Variance	Eigen Values	Item Converged	Factor Loading
Factor 1	19.689	2.756	I have absolute faith and confidence in the doctors	.916
			I feel perfectly satisfied with the way I am treated by the staff, doctors & health care professionals.	.883
			The doctor is very careful to check everything when examining me	.862
Factor 2	15.126	2.118	The practice nurse is always very reassuring.	.762
			I do not feel rushed when I am with the doctor	.641
			It is easy to see the doctor of my choice	.620
			I can speak to a receptionist privately if I wish	.602
			The receptionists explain things clearly to me	.494
Factor 3	10.761	1.506	I am satisfied with the out of hours service	.690
			The doctor fully explains how the illness will affect my future health	.583
			I feel it is easy to speak to my doctor by telephone	.427

Testing of Hypotheses

This section of the articles tests the hypotheses proposed in the earlier. Linear regression was utilized to analyse causal relationship between word of mouth as dependent variable and patient commitment and satisfaction as independent variables.

Examining Effect of Patient Commitment on Word of Mouth

Table 10: Model Summary^b (Patient Commitment* Word of Mouth)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.585 ^a	.342	.338	7.80720	1.708
a. Predictors: (Constant), Commitment_Total					
b. Dependent Variable: WOM_Total					

The effect of patient commitment on word of mouth is examined through table 10, 11 and 12. These tables are exhibiting the statistical inferences made from the collected responses. It is indicated from the table 10 and 11 indicate that patient commitment account for 34.2% of variance on word of mouth for not for profit health care centre’s patients ($R^2=0.342$, $\Delta R^2: 0.338$, $F(1,172)= 88.960$, $p < 0.05$).

Table 11: ANOVA^a (Patient Commitment* Word of Mouth)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5422.328	1	5422.328	88.960	.000 ^b
	Residual	10422.851	171	60.952		
	Total	15845.179	172			
a. Dependent Variable: WOM_Total						
b. Predictors: (Constant), Commitment_Total						

The result of ANOVA Table indicated through the F value and the value of F was found to be 88.960 significant at 0.000 level of significance. Hence, the model is highly fit between patient commitment and Word of Mouth.

Table 12: Coefficients^a (Patient Commitment* Word of Mouth)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.715	3.842		3.830	.000
	Commitment_Total	.382	.040	.585	9.432	.000
a. Dependent Variable: WOM_Total						

The result of coefficient table indicatd through the β value which was 0.585 tested through t value which was found to be 9.432 significant at 0.000 level of significance. The result of regression can be defined as that patient commitment significantly predicts the word of mouth of patients using not for profit health care services in Gwalior ($\beta=.382$, $p < .05$). It indicates that there is a positive and moderate relationship between patient commitment and word of mouth (refer table 12).

Examining Effect of Patient Satisfaction on Word of Mouth

Table 13: Model Summary^b (*Patient Satisfaction*Word of Mouth*)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.333 ^a	.111	.106	9.07681	1.603
a. Predictors: (Constant), PS_Total					
b. Dependent Variable: WOM_Total					

The effect of patient satisfaction on word of mouth is examined through table 13, 14 and 15. These tables are exhibiting the statistical inferences made from the collected responses. It is indicated from the table 13 and 14 that patient satisfaction account for 11.1% of variance on word of mouth for not for profit health care centre's patients ($R^2=0.111$, $\Delta R^2: 0.106$, $F(1,172)= 21.323$, $p < 0.05$).

Table 14: ANOVA^a (*Patient Satisfaction*Word of Mouth*)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1756.762	1	1756.762	21.323	.000 ^b
	Residual	14088.417	171	82.388		
	Total	15845.179	172			
a. Dependent Variable: WOM_Total						
b. Predictors: (Constant), PS_Total						

The result of ANOVA Table indicated through the F value and the value of F was found to be 21.323 significant at 0.000 level of significance. Hence, the model is highly fit between patient satisfaction and Word of Mouth.

Table 15: Coefficients^a (*Patient Satisfaction*Word of Mouth*)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	33.880	3.669		9.234	.000
	PS_Total	.298	.064	.333	4.618	.000
a. Dependent Variable: WOM_Total						

The result of coefficient table indicated through the β value which was 0.333 tested through t value which was found to be 4.618 significant at 0.000 level of significance. The result of regression can be defined as that patient satisfaction significantly predicts the word of mouth of patients in not for profit health care services in Gwalior ($\beta=.333$, $p < .05$). It indicates that there is a positive and moderate relationship between patient satisfaction and word of mouth (refer table 12).

Status of Hypotheses

<i>Hypotheses</i>	<i>Status</i>
Patient commitment significantly effects word of mouth for not for profit health care centres.	<i>Supported</i>
Patient satisfaction significantly effects word of mouth for not for profit health care centres.	<i>Supported</i>

DISCUSSIONS AND IMPLICATIONS

The Patient commitment significantly effects word of mouth for not for profit health care centres. It indicates that the commitment of the patients, significantly affects word of mouth. Patient satisfaction also significantly effects word of mouth for not for profit health care centres. Thus the not for profit health care centres should focus their efforts for information generation from the patients for understanding their needs and enhance their services so that patient is satisfied and remains committed thus the word of mouth is positively affected.

LIMITATIONS

The research was carried out in Gwalior Chambal region, the sample was native to this geographical area, thus the results of the cannot be generalized. The sample size was small. More accurate results would have The method of sample was non-probability purposive sampling, the the chances of sampling error cannot be fully written off.

CONCLUSION

The study was conducted in Galior-Chambal region and examined impact of patient commitment and satisfaction on word of mouth at not for profit health care centres. The results indicated that both patient commitment and satisfaction has significant and positive impact on word of mouth. It may be inferred that Word of Mouth could swing consumer attitude either way with the negative one doing more harm than the good caused by positive one. Thus, all the for profit/not for profit organisations should focus their efforts for enhancing level of commitment and satisfaction among the patients resulting in positive effect on word of mouth.

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