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A Correlational Study Between Patient Physician Communication and Patient Satisfaction

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ABSTRACT

Context:Patient Physician communication plays the most vital role in building a good doctor patient relationship and eventually good care. While sophisticated technologies may be used for medical diagnosis and treatment, inter-personal communication is the principal tool by which the physician and the patient exchange information.Safe practices and effective, patient-centred communication is key to quality care. A physician with good communication skills has the potential to help regulate patients' emotions, facilitate comprehension of medical information, and allow for better identification of patients' needs, perceptions, and expectations and lead to patient satisfaction. International bodies like JCI have introduced International patient safety Goals which focus on the importance of effective communication in healthcare settings and how it leads to patient safety. National standards like NABH also emphasize on the need of effective communication regarding treatment, prognosis, discharge and patient rights.

This study is an attempt to identify gaps in patient physiscian communication in the current healthcare settings, and find the correlation between patient physician communication and patient satisfaction.

Aims: The aim of the study is to analyse the current levels of effective patient communication and find the correlation between patient physician communication and patient satisfaction in a Tertiary Care hospital in Delhi-NCR with help of a self-administered questionnaire.

Settings and Design:The design of our proposed study is a descriptive study where we will use a self-administered questionnaire to assess the level of patient-physician communication and patient satisfaction in the selected study setting.

Methods and Material:The NABH Standard were used as a guideline for preparing the self-administered questionnaire.All admitted patients of the selected study area consisted of the population for the study. Simple Random sampling technique was used to derive the sample out of the population.

Statistical analysis used:Pearson's Correlation Coefficient and Regression Analysis were used to establish correlations between the two variables.

Results:The results of this study showed that effective doctor patient communication was highly correlated with patient satisfaction with health care services.The study shows that 48% of the respondents were of opinion that they were given partial information, while 20% of the respondents alleged that they were not given any information about the explanation of their disease, its prognosis and the treatment option that were available i.e. a total of 62% of the patients said that they had partial information to complete lack of information that would have made them aware of their diseases, its prognosis and the treatments options available to cure it, while only 32% of the patients agreed that they were supplied with thorough information during their interaction with the physicians.

Conclusions:The majority of the patients were not well informed about their disease, its prognosis, treatment plan and continuity of care. There was a significant positive correlation between the communication made at initial stages of hospital stay and during the end stages of stay of patient. The main barrier to patient physician communication was time.

KEYWORDS | Patient-Physician Communication, NABH, IPSG, Patient Satisfaction

Introduction

Effective Doctor-Patient communication is the basic requirement in building a good doctor-patient relationship. In order to fulfil physician's and patients' needs, both alternate between

"information-giving" and "information-seeking". Patient-shave to impart information about their symptoms;doctors need to actively seek out relevant information.Once the diagnosis and treatment plan hasbeen established, doctors have to efficiently impartthis information to their patients.Good communication is both an ethical imperative, necessary for informed consent and effective patient engagement, and a means to avoid errors, improve quality and achieve better and safer health outcomes. The ultimate objective of any Doctor-Patient communication is to improve the patient's health and medical care.

Good doctor-patient communication has the potential to help regulate patients' emotions, facilitate comprehension of medical information, and allow for better identification of patients' needs, perceptions, and expectations. Physicians with better communication and interpersonal skills are able to detect problems earlier, can prevent medical crisis and expensive intervention, and provide better support to their patients.

NABH Standards provide framework for ensuring patient safety and quality of patient care. The international patient safety Goals also emphasizes the importance of effective communication in delivery of safe and effective patient care. This study aims to analyse the current levels of effective patient communication and patient satisfaction in a Tertiary Care hospital in Delhi-NCR with help of a self-administered questionnaire. The study will assess the level of information shared with the patient and the related patient satisfaction that resulted from dissemination of the information.

The reference for designing the questionnaire of this study is taken from Patient rights and Education (PRE). The chapter

PRE specially emphasizes on the importance of communication and also has identified key areas of communication which are important for patients.

Research design:
The current study was conducted at a super-specialty hospital.A descriptive research design was utilized in the current study. This design is concerned with description of a phenomenon of interest and focused on a single group or population characteristics without trying to make interference. A sample of convenience including 70 patients, representing all those who are admitted in the IPD units of the selected study setting was taken. A structured questionnaire was developed, tested for clarity and feasibility, and then used to collect data. Development of this questionnaire was guided by NABH Standards (Patient Rights and Education Chapter). Designed tools were examined for content validity by a panel of five experts.

Ethical Clearance and confidentiality: The current study was approved by ethical committee of the selected Hospital. Confidentiality and anonymity of each subject were assured through coding of all data.

Methodology:
The current study was comprised of two phases: the preparation phase and implementation phase. The preparation phase involved the construction and preparation of data collection tools along with the procedure to obtain the managerial agreement to carry out the study. This phase lasted for about four months. The implementation phase was carried out after acquiring official permissions to conduct the study. Data of the current study were collected over a period of four months starting from October 2014 to Jan 2015. The researcher/research associate was available during the time of filling the data collection sheet to answer any question, and to provide the needed explanations.

Sample:
The sample for this study was comprised of indoor patients of a multi-specialty hospital. The sample was collected through purposive sampling technique. The sample size for the current study was 70.

Instrument:
The questionnaire was comprised of 14 questions pertaining to patient communication where the level of information that was disseminated to the patients by the healthcare staff at each level of patient treatment was checked. For each question related to patient question, Likert scale was used where 1 was equal to "disagree" and 3 was equivalent to "agree" while the mid-point 2 was equivalent to "partial information". This questionnaire would help us the level of information that was passed on to the patient at each level of patient treatment. For measuring the level of patient satisfaction at each stage of patient communication, another 3 point Likert scale was used where 1 was equivalent to "dissatisfied" and 3 was equivalent to "very satisfied". This would help us to gauge the level of patient satisfaction at each level of patient communication. Filling the questionnaire required about 15 minutes from each patient. Obtained data was fed into Microsoft Excel for further analysis.

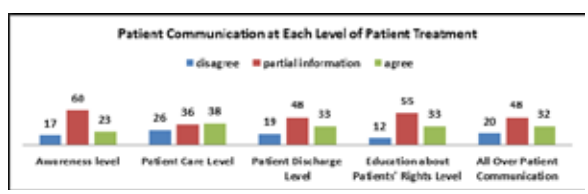
Results and Discussion
Table 1 presents the descriptive statistics for both patient communication and patient satisfaction for the sample of the study. From the descriptive statistics it is evident that the mean score of patient communication (29.8) and mean score of patient satisfaction (8.21) fell short of maximum possible score for patient communication (42) and maximum score for patient satisfaction (15) respectively i.e. there was a gap between perceived and expected level of patient communication and patient satisfaction. Low standard deviation for responses regarding patient communication (0.89) and for responses regarding patient satisfaction (2.35) indicated lack of variance among the responses i.e. consensus among the responses can be noted.

Table 1: Descriptive Statistics for Patient Communication

Descriptive Statistics	Patient Communication	Patient Satisfaction
N= Number of Questions	14	14
Maximum Possible Score	42	15
Mean Score	29.8	8.21
Standard Deviation	0.89	2.35
Minimum Score	18	4
Maximum Scores	41	12

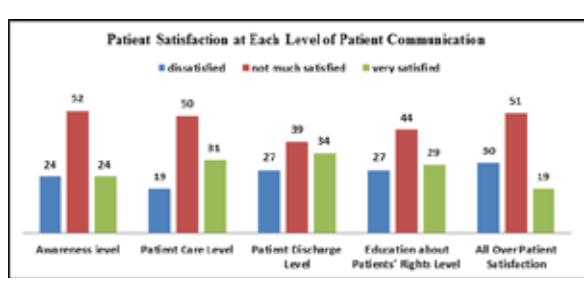
From Fig 1 it is evident that only a very low percentage (between 23% to 38%) of patients agreed that they received complete information at each stage of patient treatment i.e. at patient awareness level, patient care level, patient discharge level and education about patients' rights level. Also, only 32% of the patients agreed that they had received complete information from all over communication throughout the four stages of their treatment. However, most of the patients were of opinion that they received partial information during their communication with the doctors at each level of their treatment, while around 17-26% of the patients completely disagreed that they received any sort of information at all during their treatment. The figure provides us with a picture where it is evident that most of the patients either had partial information or had no information at all during their communication at each level of their treatment.

Fig 1: Patient Communication at Each Level of Patient Treatment



After analyzing the level of patient communication at each stage of patient treatment, Fig 2 presents us with the patient satisfaction at each level of patient communication. Bearing a semblance with the findings of Fig 1, here also, it was found that a very low percentage of patients were very satisfied (19-31%) with their communication at each level of their treatment while most of the patients were "not much satisfied" with the communication at each level of patient communication and 19-30% of patients were dissatisfied with the level of patient communication throughout their treatment. Also, only 19% of patients were satisfied from the overall patient communication.

Fig 2: Patient Satisfaction at Each Level of Patient Communication



Thus, from the above discussion it is suggested that patient communication at each level had a relationship with patient satisfaction at that level since the scores for each category of patient communication at each level was close to the score for

the corresponding category of patient satisfaction e.g. percentage of patients who received complete information at any level was close to the percentage of very satisfied patients at that level etc.

In the next subsequent subsections of the study the correlation between patient communication and patient satisfaction is explored.

Hypothesis 1 (H_1): There is an association among Patient Communication and Patient Satisfaction

The Correlation table, Table 2 suggested that there was moderate association between patient communications at each level with the patient satisfaction at that level. The results from the following correlation table clearly indicated that Patient Awareness Communication, Patient Care Communication, Patient Discharge Communication and Patient Rights Communication have a moderate level of linear association with Patient Satisfaction at Awareness Level, Patient Satisfaction at Care and Treatment Level, Patient Satisfaction at Discharge Level and Patient Satisfaction Education about the Patient Rights Level respectively. The results suggested that Patient Communication at a certain level moves in the same direction with the Patient Satisfaction at the same level. Though the result should not be confused with the causality factor yet the findings are significant in terms that Patient Communication and the Patient Satisfaction are closely related.

Table 2: Correlation Between Patient Communication and Patient Satisfaction at each level

	Patient Satisfaction at Awareness Level	Patient Satisfaction at Care and Treatment Level	Patient Satisfaction at Discharge Level	Patient Satisfaction at Education on Patient Rights Level
Patient Awareness Communication	0.54			
Patient Care Communication		0.65		
Patient Discharge Communication			0.67	
Patient Rights Communication				0.62

Table 3 indicated moderate inter correlation among patient satisfaction at each level of patient communication. The results indicated that the patient satisfaction at each level shared a moderate linear relationship. Though the results should not be interpreted as a causal effect yet the results could be perceived as the spillover effect of patient satisfaction at each level of patient communication.

Table 3: Inter-Correlation among Patient Satisfaction at each level of Patient Communication

	Patient Satisfaction at Awareness Level	Patient Satisfaction at Care and Treatment Level	Patient Satisfaction at Discharge Level	Patient Satisfaction at Education on Patient Rights Level
Patient Satisfaction at Awareness Level	1.00			
Patient Satisfaction at Care and Treatment Level	0.50	1.00		
Patient Satisfaction at Discharge Level	0.47	0.54	1.00	
Patient Satisfaction at Education on Patient Rights Level	0.55	0.44	0.61	1.00

The last correlation table, Table 4 depicted the correlation between Patient Satisfaction at each level of Patient Communication on Patient Satisfaction from overall Patient Communication. The results indicated that there was moderate correlation (correlation coefficient "r" is around .50 in each case) between Patient Satisfaction at each level of Patient Communication on Patient Satisfaction from overall Patient Communication. The result indicated that patient communication at each level was associated with patient satisfaction from the overall patient communication which suggested that flow of information is important for patient at each level of patient communication.

Table 4: Correlation Between Patient Satisfaction at each level of Patient Communication on Patient Satisfaction from overall Patient Communication

	Patient Satisfaction from Overall Patient Communication
Patient Satisfaction at Awareness Level	0.46
Patient Satisfaction at Care and Treatment Level	0.45
Patient Satisfaction at Discharge Level	0.47
Patient Satisfaction at Education on Patient Rights Level	0.54

The last hypothesis to be tested for this study was to assess the impact of the patient satisfaction at each level on the patient satisfaction from overall communication. In the last correlation table, Table 4, it was observed that patient satisfaction from overall communication had a weak to moderate correlation with patient satisfaction at each level of communication. However, since correlation only points towards linear association and doesn't imply causation hence, a multiple regression analysis was carried out to analyse whether patient satisfaction at each level of communication had a direct impact on patient satisfaction from overall communication.

Hypothesis 2 (H_2): There Is an Impact of Patient Satisfaction at Each Level of Patient Communication on Patient Satisfaction from Overall Communication

From Table 5, it could be observed that the value of R^2 was 37% i.e. patient satisfaction at each level of communication could explain only 37% of the patient satisfaction from overall communication and the rest of 63% variance in the score for patient satisfaction from overall communication was attributed due to some other factors. The F statistic (9.38, p=0.00) indicated the overall significance of the model.

Table 5: Multiple Regression analysis – Goodness of Fit (R Square) And Overall Significance (F Statistic) Of the Model

R Square	**0.37**
Adjusted R Square	0.33
F Statistic	9.38
Significance *F*	0.00

However, upon inspecting the p values of the regression coefficients in Table 5, it was clear that none of the regression coefficients were significant except the "Patient Satisfaction at Education on Patient Rights Level" (p=0.01), since for rest of the regression coefficients, the p value was higher than the set level of significance for the study (.05).

Table 6: Multiple Regression Analysis – Impact of Patient Satisfaction at Each Level of Communication on Patient Satisfaction from Overall Communication

	Coefficients	P-value
Intercept	0.45	0.08
Patient Satisfaction at Awareness Level	0.15	0.24
Patient Satisfaction at Care and Treatment Level	0.22	0.08
Patient Satisfaction at Discharge Level	0.02	0.88
Patient Satisfaction at Education on Patient Rights Level	0.33	0.01

The results of this study were in line with a few of the past researches in the healthcare industry where it was proved that effective doctor patient communication was highly correlated with patient satisfaction with health care services. In a study by Jackson (2001) involving 500 patients who were treated by 38 primary care clinicians for physical symptoms, facets of patient doctor communication such as "receiving an explanation of the symptom cause, likely duration, and lack of unmet expectations" were found to be the key predictors of patient satisfaction. In another study by Williams, Welnman and Dale (1998), strong evidences of positive relation between doctors' general information provision during consultation and patient satisfaction were obtained. In a review of 17 studies (Lewin, 2002) by the Cochran Library that was carried out to analyse the effects of interventions aimed at health care providers to promote patient cantered care, training health care providers in patient cantered approaches was found to have a positive impact on patient satisfaction with care.

However there were also instances where conflicting results were found to be obtained on relationships between information seeking behaviours and patient satisfaction. The results of this study contradict the findings of such studies. In one such study, it was found that les questioning from the doctors was positively correlated with the patient satisfaction (Welman et al, 1998). However, it is empirically proved that doctor-patient communication is one of the key drivers of patient satisfaction.

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