STATISTICAL ANALYSIS OF THE Impact OF DOCTOR-DOCTOR COMMUNICATION ON THE QUALITY OF PATIENT CARE IN A NEPALI HOSPITAL

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ABSTRACT

Introduction
The dialog of thoughts and information verbally or nonverbally between doctors and patients is patient-doctor communication. This study explores the persuasive quality of patient-doctor communication in a Nepali hospital. With the help of the data collected, the study evaluates mainly ethical appeals, logical appeals and emotional appeals.

Objective
The objective of this research is to evaluate the persuasive elements specifically ethos, logos and pathos of patient-doctor communication in a Nepali hospital.

Methodology
This is a hospital based descriptive study. This research has used Aristotle’s rhetoric: Ethos, logos and pathos. Because of the lack of big data in this area, secondary data is scanty, so an empirical tool (survey) is adopted for generating data. First a survey is done on 50 doctors working in the hospital, and 300 outpatients suffering from chronic diseases. The data is collected and entered on an Excel file. Later it is analyzed and interpreted thematically with the help of pie charts and tables.

Result
Ethical appeals, logical appeals and emotional appeals are found good in patient-doctor communication in this hospital under study.

Conclusion
In terms of ethos, logos and pathos separately, patient-doctor communication in Nepali hospital appears to be good. However, there is a lack of combination of all these three elements in most of the respondents.

KEY WORDS
Patient-Doctor Communication, Ethos, Logos, Pathos
INTRODUCTION

Communication with the patient is an art. A medical professional can earn a lot of degrees, but communicating with the patient always remains a problem for some of them. This research studies the quality of patient-doctor communication in a teaching hospital. The teaching hospital located in Dhusikhet Municipality, Kavrepalanchok district. It provides its service for all medical programs. It serves hundreds of people in neighboring districts, too. Though some researches have been done at this hospital, big data can be scarce as it is a recent phenomenon, and given its rapid implementation and deployment there are ongoing debates as to what constitutes big data and its connected characteristics. Some definitions, such as that big data are too large to fit in an Excel spreadsheet or be stored on a single machine are quite hackneyed and unhelpful, and reducing big data to merely volume.

Patient-doctor communication is important as no proper diagnosis or treatment occurs without proper communication, but big data on this case are lacking as enough studies on this issue have not taken place yet. This study analyses whether doctors and patients interact with each other to make sense of the illnesses, and to position themselves in a wider medical and social reality. It examines if its importance is seen in this hospital. The main aim of this research is to know the condition of doctor-patient communication along with the brief exploration on finding out of ethos, logos and pathos, which aspects affect the quality of it at a Nepali hospital. A large part of the communication problem may be attributable to a gap between the perceptions of physicians and patients. In the twenty-first century, Nepal too has a market driven society, and patients are like deities. But many hospitals in Nepal are not driven by this motto, and services patients received in these institutions are an area that demands attention throughout the country. Many doctors show their negligence toward the talk of the patient which leads them to miss the very important history of prolonged disease. The emerging evidence suggests that it provides a moderate advantage over comparison interventions and could be used for a wide range of behavioral issues in health care.

This is the reason why many hospitals are destroyed which results the patients along with their relatives to have trust issues towards these institutions. As the result, they are attracted to health care centers abroad. The agendas of doctor-patient communication in Nepal reported occasionally in local newspapers cannot be ignored. Even a few of articles have failed to include the broad ranges of doctor-patient relations.

METHODOLOGY

Quantitative research design is used with descriptive design that details characteristics, averages, and tendencies. In this study, the questionnaires explore perceptions of doctors, and patients regarding effective communication between them. Information is being collected over one-month period (July to August 2017). Three hundred patients and fifty doctors are the respondents of this study. Even though the population is slender, the effects resonate the true plethora of the patient and doctor’s communication because the health center is the most important in this vicinity with many outreach facilities. Moreover, all types of doctors and patients go there for treatment. The information is collected and entered on an Excel file.

Later it is analyzed and interpreted thematically. Usually, we use in qualitative study, verbal and written request are made to the authority before undertaking the study. Patients are asked about their perceptions regarding doctors’ communication to them with the variables of the survey. The amount of information doctors give to their patients may be influenced by patients’ personal characteristics.

Two types of variables are used in this research.

For doctors, gender, age, specialty, years from graduation, years from becoming specialist, and professional status are considered. Similarly, for patients’ gender, age, education, duration of the disease and duration of the medical observations are made the criteria. Since there are contrary findings in the literature regarding the issue of the influence of communicative behavior on patient outcomes, it is determined whether there was any difference between patients’ perception of the amount of information provided by the doctors. Moreover, the doctors’ attitude and communication with them, and how these factors affect patients’ satisfaction are taken in consideration. These results are analyzed by using Aristotle’s rhetoric: ethos, logos and pathos. An empirical method, a cross-sectional survey is adopted for generating data. Finally, the data are churned out together in terms of ethos, logos and pathos.

Data is collected and analyzed using the data analysis plan (See Appendix 1). Data-analysis processes are sufficiently described and detailed to be replicated. Data-analysis procedures conform to the research design, hypotheses, models, and theory drives the data analyses. Rhetorical triangle is essential to persuasion: Ethos, logo, and pathos are the key elements of the triangle.Ethos means caring and competence as “if patients like their doctors and trust not only their technical skills, but also their commitment to advocate a plan of treatment that really is best suited for the patients, the patients are more likely to comply”. Patients’ and doctors’ conversations are evaluated by examining how much pathos, ethos and logos are expressed in their interactions. Thus, the framework is used to extract the degree of persuasion in their conversations.

RESULTS

Out of 300 patients, 117 (39%) people were in the age group 40-50, 78 (26%) were in between 30-40 age. Half of the patients were illiterate. 81 patients had qualified SLC/+2 pass, whereas 30 people had Primary Education. Similarly, 21 of the patients had the qualification of Master’s Degree, and 18 of patients had Bachelor’s Degree. One hundred fifty nine patients were females and the rest 141 were males. Twenty-five doctors surveyed were of age group 25 to 30, 20 doctors were in the age group of 30 to 35 and 5 doctors were...
By evaluating both tables, ethical appeals, logical appeals and emotional appeals are found not decent in patient-doctor communication in this hospital under study.

**DISCUSSIONS**

Persuasive messages might differ in content, tone and context. Variables such as age, qualification, gender had clear roles regarding the degree of presentation. In some cases, it might seem more effective to present it later. Although most client-related variables are unrelated to outcomes (e.g., age, gender, severity), some decisions about treatment format (e.g., individual vs. group) are important. Another aspect of the message that had been studied was its structure. The content of the message given to the patients had to be convincing so that they would be persuaded to buy, consume medicine and go for follow ups. The results of the research showed that doctors who were more educated and had training performed better. Results indicate a positive impact on attitudes toward learning communication skills and self-efficacy regarding communication in the clinical setting. The problem of use appeals to the rational or emotional aspect of the recipient target was investigated. When people were reasonably persuasive, the appeals influenced the recipients equally. In many compelling contexts, the recipient of the message is incompetent or unmotivated. To effectively handle rational complaints. In such cases, persuaders often feared as well as emotional persuasion from humor to compassion. On the other hand, personality factors pertaining to the receiver were important factors limiting the impact of fear appeals.

Majority doctors at the Nepali hospital believed that their recent consultation was very satisfying for them. Almost all achieved the goals of the sessions with the patients. Almost all doctors believed patients understood the language they used, and there was better communication. Majority of doctors did not understand what they are trying to do. Majority of doctors did not understand what they are trying to do. Majority of doctors believed in the best outcome. The patient doctor communication is important in understanding the problem of the patient by any doctors so doctors’ willingness to avoid patients is positive.

The results showed that the majority of the doctors were too much busy and desired to spare their time with patients. Most of the doctors communicated with patients harmoniously whereas some of them did not understand them properly. Only a few doctors were confident about the positive response of the patients whereas other doctors were doubtful fully or partly confident about the response of the patients. Majority of the doctors were always cheerful to the patients, but some doctors became angry momentarily. Majority of the doctors appeared to be professional in communication.

Majority of the doctors fully or partly relied on the internet sources for getting the information about the patient’s health condition. Doctor's gender had a role in patient-doctor communication. Out of 40 doctors in this hospital, 10 were females. By evaluating both tables, ethical appeals, logical appeals and emotional appeals are found not decent in patient-doctor communication in this hospital under study.

**Majority doctors built trust with their patients and met patients’ expectations.**

### Table 1: Questionnaires and Patients’ Responses:

| Questions                                                                 | Patient who strongly agreed | Patient who agreed | Patient who disagreed | Patient who strongly disagreed |
|---------------------------------------------------------------------------|----------------------------|-------------------|-----------------------|-------------------------------|
| 1 I trust the doctor                                                     | 0%                         | 97%               | 3%                    | 0%                            |
| 2 My last visit with the doctor was very satisfying for me               | 9%                         | 77%               | 17%                   | 3%                            |
| 3 The doctor understands me                                              | 2%                         | 85%               | 13%                   | 0%                            |
| 4 I have sympathy for the doctor                                         | 0%                         | 57%               | 43%                   | 0%                            |
| 5 The doctor perceives accurately what my problems                       | 0%                         | 87%               | 13%                   | 0%                            |
| 6 The results of the meeting are very important                           | 0%                         | 97%               | 3%                    | 0%                            |
| 7 We agree upon the procedure we follow for the best outcome of my problems | 37%                       | 60%               | 9%                    | 0%                            |
| 8 Our relationship is very important                                      | 0%                         | 100%              | 0%                    | 0%                            |
| 9 The thing that the doctor is asking me to do does not make sense        | 0%                         | 10%               | 87%                   | 3%                            |
| 10 The doctor doesn’t show any patient with me                            | 0%                         | 14%               | 83%                   | 3%                            |
| 11 I secretly hope not to see the doctor again                            | 0%                         | 30%               | 67%                   | 3%                            |
| 12 I feel angry sometimes when doctor ask me some questions              | 0%                         | 10%               | 77%                   | 30%                           |
| 13 I feel uncomfortable with the doctor                                   | 0%                         | 30%               | 70%                   | 0%                            |
| 14 I feel that the doctor is not totally honest about his/her feelings    | 0%                         | 7%                | 90%                   | 3%                            |
| 15 The doctor speaks my mother tongue                                      | 0%                         | 87%               | 13%                   | 0%                            |
| 16 I understand what the doctor writes in his/her prescriptions           | 0%                         | 17%               | 83%                   | 0%                            |
| 17 I like the way the doctor explains me about the treatment procedure    | 0%                         | 97%               | 3%                    | 0%                            |

### Table 2: Questionnaires and Doctors’ Responses:

| # | Questions                                                                 | Number of doctors who strongly agreed | Number of doctors who agreed | Number of doctors who disagreed | Number of doctors who strongly disagreed |
|---|---------------------------------------------------------------------------|--------------------------------------|------------------------------|---------------------------------|------------------------------------------|
| 1 | This was a very satisfying case for me                                    | 20%                                  | 60%                          | 10%                             | 0%                                       |
| 2 | The goals of these sessions are very important                           | 40%                                  | 60%                          | 0%                             | 0%                                       |
| 3 | I believe the doctor understands the language in use                     | 20%                                  | 50%                          | 0%                             | 0%                                       |
| 4 | The doctor is trying to do.                                              | 15%                                  | 10%                          | 70%                             | 0%                                       |
| 5 | If I had a conflict I'd like more information                            | 0%                                   | 80%                          | 10%                             | 0%                                       |
| 6 | I understand what the doctor writes in his/her prescriptions            | 0%                                   | 80%                          | 10%                             | 0%                                       |
| 7 | Our relationship is very important                                       | 40%                                  | 70%                          | 0%                             | 0%                                       |
| 8 | If I perceive accurately what my goals are                              | 0%                                   | 60%                          | 10%                             | 0%                                       |
| 9 | I have sympathy for the doctor                                           | 40%                                  | 50%                          | 0%                             | 10%                                      |
| 10 | We understand each other                                                 | 20%                                  | 60%                          | 10%                             | 0%                                       |
| 11 | We agree upon the procedure we follow for the best outcome              | 50%                                  | 50%                          | 0%                             | 0%                                       |
| 12 | I am clear to what she wants me to do in their visits                    | 50%                                  | 50%                          | 0%                             | 0%                                       |
| 13 | I can exert influence to see the patient                                 | 0%                                   | 50%                          | 10%                             | 30%                                      |
| 14 | My patient is exhausted with the patient                                 | 0%                                   | 60%                          | 60%                             | 0%                                       |
| 15 | The things that he/she is asking me to do don’t make sense               | 0%                                   | 80%                          | 10%                             | 0%                                       |
| 16 | The patient is less                                                        | 0%                                   | 80%                          | 10%                             | 0%                                       |
| 17 | I feel angry sometimes during the diagnosis                             | 0%                                   | 50%                          | 70%                             | 0%                                       |
| 18 | I feel uncomfortable with the doctor                                     | 0%                                   | 50%                          | 70%                             | 0%                                       |
| 19 | I like the way the doctor explains me about the treatment procedure      | 20%                                  | 50%                          | 10%                             | 0%                                       |
illness. The handwriting of doctors had always been an issue since decades. They were the pharmacists who were required to understand the reports and medicines prescribed by doctors, and the doctors' honesty in overall patient-doctor communication was not good. But the patients felt comfort in overall patient-doctor communication. The results were genuine since the preeminent experts in the hospitals were always doctors. Most of the people agreed with the things the doctors asked them to do. On the basis of these responses, we analyzed the trust of overall patient-doctor communication in Nepali hospital. It was found that all ethical appeals, logical appeals and emotional appeals were not excellent in patient-doctor communication in Nepali hospital.

It was shown that patient doctor communication was very important because it associated with satisfaction. Satisfaction with patients would affect other outcome sources adherence to treatment, and ultimately better physical health. Patients who were more satisfied with their doctors are more likely to continue receiving them and they also referred friends and family members. It was a potentially positive outcome of the patient satisfaction. It needs to address strengthening different aspects like Interpersonal Relation of the hospital staffs with consumers, maintenance of hygiene and sanitation, place of examination, doctor patient ratio etc. For patient satisfaction with providers was largely associated with doctors' interpersonal communication skills. It was found satisfaction was often linked to doctors' ability to communicate with emotional support, availability, understanding and caring to the patient. Doctors' success was earned with a balance between addressing medical and psychological concerns when communicating with patients.

Patients are also more satisfied with their doctors when they were encouraged to express concerns. It did not appear to be as important as perceptions of doctors' personal skills conversely patients' dissatisfaction had been found to be related with lack of interpersonal warmth or friendliness on the part of the doctors, and waiting room time. Doctors' failure to recognize patients' conscious and clear explanations of medical condition diagnosis and treatment, inappropriate use of medical jargons harmed their communication.

CONCLUSIONS

On the basis of responses, we studied the trust of overall patient-doctor communication in a hospital. Both doctors and patients believed that the relationship and communication between them is important, but it was not happening in reality. It was found that all ethical appeals, logical appeals and emotional appeals as a whole were missing and not excellent in patient-doctor communication in that hospital.

LIMITATION OF THE STUDY

Keeping in mind the big data revolution, the major limitation of this is the necessity of restricting the number of hospitals selected for this investigation. There are many hospitals established till date, in order to examine a single institution more closely, we selected to focus on patient-doctor communication in a Nepali hospital. It is almost located in the central part of Nepal and popular for community service. Moreover, it is big enough to attract a large pool of doctors and patients from many parts of the country.

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None

CONFLICT OF INTEREST

None

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