Relationship between Demographic Characteristics and Patients' Satisfaction with TU Teaching Hospital's Services

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Abstract
The aim of this study was to explore the relationship between demographic characteristics and patients’ trust in doctors. To reach the goal of the study research, a cross-sectional time horizon and descriptive study method were used. Results revealed a significant relationship between age and patient satisfaction regarding trust at TU Teaching Hospital in Kathmandu, Nepal. This indicates that patients of various age groups expressed different levels of trust in the hospital. Additionally, the analysis also indicated a significant relationship between gender and patient satisfaction regarding trust at the same hospital. However, there was no significant relationship found between the number of visit times and patient satisfaction regarding trust. These findings imply that age and gender play a role in shaping patients' trust levels, while the frequency of
visits does not significantly impact patient satisfaction with trust at TU Teaching Hospital. As a renowned hospital, TU Teaching Hospital in Kathmandu, Nepal enjoys higher levels of trust from patients who visit from different districts across Nepal.

**Keywords:** Age, Gender, Hospital, Patient, Trust

**Introduction**

Patients or customers of a hospital, hold a crucial role in healthcare organizations. Trust between patients and healthcare providers is a pivotal element for effective care. Several factors contribute to this trust (Pi, Liao, & Chen, 2012; Jang & Kim, 2023). For example, Shared Interest: Patients trust healthcare professionals who genuinely care about their well-being, fostering collaboration. Effective Communication: Trust grows through clear communication where medical terms are explained and patient concerns are heard. Consistent Reliability: Trust forms over time when healthcare providers consistently meet expectations and deliver accurate information. Balanced Power: Trust thrives when patients perceive a balanced power dynamic, valuing patient autonomy and input. Openness: Healthcare providers who share relevant personal information establish transparency and a stronger bond of trust. Long-Term Commitment: The anticipation of an enduring relationship strengthens trust, promoting patient security. These factors collectively cultivate interpersonal trust, vital for quality patient care. Trust influences patient contentment, adherence to treatment, and overall loyalty to the healthcare institution. Hence, healthcare organizations should prioritize trust-building strategies to enhance patient care (Johnson & Noonan, 1972).

The main goal of hospitals is to provide maximum healthcare services to all the people at a minimum cost. Trust of patients towards hospital plays a significant role in their treatment. Building customer relationships means delivering superior value over competitors to the target customers (Philip Kotler, Gary Armstrong, 2008).

In hospital life and death of a person matters so, it is critical as well as most trust required organizations. In hospital we required 5R that is right time, right quality, right quantity, right diagnosis, and right person (Berthelot, et al., 2021). If these five things are properly managed, then it will be easy for patients to trust health care professionals and hospitals. Trust is an important aspect in every sector, maybe in its daily life or in business. Trust is the basic and fundamental aspect to measure, physician attributes identified by patients as engendering trust may be grouped into domains of technical competency, interpersonal competency, and agency (also called fidelity, loyalty, or fiduciary duty) (David H. Thom, 2004).

The significance of conducting a study on patients’ trust towards hospital cannot be overstated. The success and efficiency of healthcare institutions are heavily influenced by trust in the current healthcare environment. The purpose of this project report is to shed light on the importance of examining and comprehending the variables affecting patients’ trust in healthcare providers.
Objectives
The general objective of this study is to explore patient’s trust in doctor.
The specific objectives of the current study are as follows:
(i) To explore the relationship between gender and patient satisfaction.
(ii) To identify the relationship between age and patient satisfaction.
(iii) To assess the relationship between number of visits and patient satisfaction.

Research Hypotheses
It is based on the objective of the study. They are mentioned below:
H$_1$: There is a significant relationship between gender and patient satisfaction.
H$_2$: There is a significant relationship between age and patient satisfaction.
H$_3$: There is a significant relationship between the number of visits and patient satisfaction.

Literature Review
In the realm of healthcare, patients serve as the equivalent of customers, and their contentment holds significant importance for healthcare establishments. The level of patient satisfaction acts as a key indicator of the quality of services provided by a hospital or healthcare facility (Manaf & Nooi, 2007).

Patient contentment is influenced by several factors. Quality of Treatment: This pertains to the effectiveness and efficiency of medical procedures and interventions. Patients expect accurate diagnoses, appropriate treatments, and favorable health outcomes. Effective Communication: Successful interaction between medical professionals and patients is pivotal. Clear explanations regarding diagnoses, treatment choices, and care plans help alleviate apprehensions and build trust. Empathy and Kindness: The conduct and attitude of healthcare staff significantly affect the emotional experience of patients. Displaying empathy and kindness can enhance patient satisfaction. Behavior of Staff: Courteous and respectful conduct from all staff members, including doctors, nurses, administrative personnel, and support staff, contributes to a positive encounter (Kamra, Singh, & De, 2015).

Similarly, Waiting Periods: Minimizing waiting times for appointments, tests, and procedures is crucial. Extended waiting times can lead to dissatisfaction and frustration. Hygiene and Comfort of Facilities: The physical surroundings of the hospital or clinic should be clean, comfortable, and conducive to recovery. Participation in Decision-Making: Involving patients in decisions about their care and honoring their preferences can make them feel valued and content with their treatment. Post-Release Follow-Up: Providing suitable follow-up care and monitoring after discharge demonstrates dedication to patient well-being (Fang, Liu, & Fang, 2019). Transparency in Billing and Finances: Transparent and clear billing practices can prevent misunderstandings and positively influence patient satisfaction. Access to Information: Patients appreciate having access to information about their health conditions, available
treatments, and potential side effects. Support for Family and Caregivers: Recognizing the role of family and caregivers and offering them appropriate information and support can enhance patient satisfaction. Resolution of Concerns: Addressing patient complaints and worries promptly and efficiently underscores the healthcare organization's commitment to valuing patient input (Kamra, Singh, & De, 2015; Jang & Kim, 2023).

Healthcare institutions frequently employ patient satisfaction surveys to collect feedback and evaluate their performance in these aspects. Elevated patient satisfaction not only signifies quality care but also cultivates patient loyalty, positive word-of-mouth recommendations, and an enhanced overall standing for the healthcare facility (Babatola, Popoola, Olatubi, & Adewoyin, 2022).

Satisfaction arises from achieving the desired outcomes, encompassing various goods and services. The perception of satisfaction varies among individuals, influenced by factors such as age, gender, and visit frequency to hospitals. The level of trust patients hold towards healthcare institutions hinges on factors like the doctor's diagnostic skills, treatment approach, and communication style when addressing patient concerns. Rather than an immediate quantifiable occurrence, satisfaction is an evaluation formed by individuals over time, drawing from their accumulated experiences (Giese & Cote, 2000). Trust in the medical field is tightly linked to patients' preferences for involvement in healthcare decisions, where physicians' authority over medical choices plays a pivotal role (David H. Thom, 2004).

Establishing and upholding trust presents a formidable challenge as it necessitates ongoing interactions and consistent, dependable encounters. A paradox exists between trust and distrust, where trust demands a considerable duration to establish, yet it can be swiftly eroded; once lost, restoring it becomes a daunting endeavor.

**Major study in various fields**

Patient satisfaction and its correlates at a Nepalese tertiary public hospital was observed. Patient satisfaction varied widely across seven parameters in 204 patients. 39% of patients were happy in general, 92% in interpersonal and 45% in accessibility and convenience. Age, gender, and ethnicity all affected patient satisfaction. Education, employment, and religion all affected most patient satisfaction characteristics (p < 0.05). In five of seven criteria, age predicted patient satisfaction best (Adhikar, Paudel, Mishra, Shrestha, & Upadhyaya, 2021).

The research examined patient satisfaction with health care services in selected Ondo State hospitals and identified variables affecting patient satisfaction. Three Ondo hospitals used descriptive cross-sectional study. Three hospitals recruited 121 multistage random sampled patients. Satisfaction with health care services is significantly related to education (f = 6.27; p = 0.01) and profession (f = 9.80; p 0.01). Urban people (134.38 ± 10.40) were happier than
rural dwellers (128.72 ± 11.8; t = 2.28; p = 0.02) (OR 3.171, 95% CI 1.33-7.55) (Babatola, Popoola, Olatubi, & Adewoyin, 2022).

Patient contentment on general medical wards at a large academic medical center, It’s a descriptive cross-sectional research done in a hospital setting. Patients at this multi-specialty teaching hospital report high levels of satisfaction with the majority of the services they get, with the greatest levels of satisfaction being reported for the doctors’ treatment and the nurses’ service (N, Bahuguna, & Rao, 2018).

Depok residents made up 116 of the participants in a conference research. Structural Equation Modeling (SEM) was the chosen statistical approach for this investigation. First, the study found no correlation between hospital infrastructure and service quality; second, it found a correlation between the actions of hospital medical and non-medical officers and service quality; third, it found a correlation between the effects of hospital IT and facilities on service quality; and fourth, it found that cost should not be the primary consideration when deciding on hospital infrastructure (Merawati, Derriawan, & Supriyadi, 2020).

To study patient satisfaction criteria and identify the most important ones to improve health policy, 2,626 valid response sheets were retrieved from 2,719 surveys. The most significant aspect determining patient satisfaction was "Medical staff's service attitude," followed by "Medical staff service technology" and "Hospital convenience." Patient demographics had no significant influence on satisfaction, but "Medical services utilization" did. Patients were less satisfied with "Medical expense" and "Reimbursement ratio for medical expenses" than with "Hospital convenience," "Hospital facilities and environment," "Medical staff services technology," and "Medical staff service attitude" (Fang, Liu, & Fang, 2019).

Conceptual frameworks
In the field of medical physician, trust has a strong association with satisfaction by having choice of selecting the physician by the patients, willingness to recommend the physician to others. The relationship between the patient and health care provider has great significance in the medical policy arena. Patient’s satisfaction can be affected by the trust in physician and in health care organization.

![Conceptual framework](image-url)
Methods and Materials
To reach the goal of the study research, a descriptive study method was used (Mahat, Kandel, & Shrestha, 2021; Neupane, Pant, & Bhattarai, 2023). The goal of a descriptive study is to get a true picture of a company, country, or group. In this research, a survey is used to find out how much trust people have in the hospital. It's more useful for learning facts and finding things when the sample size is small. This study was built on both first-hand and second-hand sources (Mahat & Aithal, 2022). During the time when study samples were being collected, the questionnaire method was used. The T.U. Teaching hospital was where this study was done. The reason this hospital was chosen for the study was because it is easier for different groups of people to get to. The number of people in this study's group is 105.

Patients who met the specified criteria for selection and were present either within the hospital premises or in separate rooms during the data collection period were chosen as samples using a simplified sampling approach. This research examines both individuals who are admitted to hospitals and those who visit them. The study specifically targeted participants aged between 16 and 55 for the sake of survey convenience. Inclusion criteria encompassed patients who were willing to participate in the survey, possessed sufficient knowledge about the key subject. Patients with severe illness or mental health concerns were excluded from the study. To find out the result, different statistics tools like Pearson Correlation, frequency, and mean were used similar technique was applied by (Mishra, Mahat, & Khanal, 2021; Ghimire & Maharjan, 2018; Neupane & Dawadi, 2018; Neupane, 2019). SPPS, the right computer program, was used a lot to measure the link between the factors that were being looked at.

Results and Analysis
The objective of this section is to introduce the comprehensive overview that was chosen to merge the practical discoveries and the analytical components of this research within this chapter. The scholars opted to showcase the outcome of the TUTH sample for the purpose of examining its display and occurrence. The subsequent content entails the summation of the overarching descriptive factors.

Table 1: Demographic information (Gender)

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>32</td>
<td>30.5</td>
<td>30.5</td>
<td>30.5</td>
</tr>
<tr>
<td>Female</td>
<td>73</td>
<td>69.5</td>
<td>69.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>105</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2023
From Table 1, out of 105 respondents, 30.5% (32) were identified as male. Additionally, 69.5% (73) of the sample was identified as female. The results revealed the gender distribution within the surveyed population. The cumulative percentages indicated that the data encompassed the entire sample, reaching a total of 100%.

Table 2: Demographic information {Age}

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-24</td>
<td>74</td>
<td>70.5</td>
<td>70.5</td>
<td>70.5</td>
</tr>
<tr>
<td>25-34</td>
<td>21</td>
<td>20.0</td>
<td>20.0</td>
<td>90.5</td>
</tr>
<tr>
<td>35-44</td>
<td>7</td>
<td>6.7</td>
<td>6.7</td>
<td>97.1</td>
</tr>
<tr>
<td>55-64</td>
<td>3</td>
<td>2.9</td>
<td>2.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>105</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2023

Dataset of 105 individuals, it was observed that 70.5% belonged to the age range of 16-24, with 74 respondents falling within this category. Furthermore, 20.0% of the samples, accounting for 21 respondents, were aged between, 25-34. The age group of 35-44 comprised 6.7% of the sample, corresponding to 7 individuals. Additionally, 3 individuals (2.9%) belonged to the age range of 55-64. These cumulative percentages indicated that the data encompassed the entire sample, reaching a total of 100%.

Figure 2 shows the number of visits by patients in the hospital.

Figure 2: No of visits by patients in hospital
Figure 2 is a bar diagram. It provides insights into how frequently respondents have participated in the given activity. The majority of respondents seem to have engaged in the activity for the first time or a few times, while a smaller portion have participated more frequently.

**Correlation between gender and patient satisfaction regarding trust**

The following table shows the correlation between gender and patient satisfaction regarding trust.

**Table 3: Correlation of gender and patient satisfaction**

<table>
<thead>
<tr>
<th></th>
<th>Patient's trust in doctor</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient's trust in doctor</td>
<td>Pearson Correlation 1</td>
<td>-.152</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.121</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>105</td>
</tr>
<tr>
<td>Gender</td>
<td>Pearson Correlation</td>
<td>-.152</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.121</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>105</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2023

The correlation analysis was conducted on a dataset consisting of 105 observations for both the "Gender" and "Patient's trust in doctor" variables. The results revealed a positive correlation coefficient of 0.121 between these variables. This suggests a weak positive relationship between gender and the variable represented by "Patient’s trust in doctor." However, the correlation was not found to be statistically significant (p > 0.05) with a p-value of 0.121. Therefore, we cannot conclude with certainty that the observed correlation is beyond what could be expected by chance alone. The sample size for both variables was consistent at 105 observations each, ensuring equal representation. Additional analysis or a larger sample may be required to determine the true nature of the relationship between gender and "Patient’s trust in doctor ".

**Table 4: Descriptive Statistics of age and patient’s trust in doctor variables**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.4476</td>
<td>.85464</td>
<td>105</td>
</tr>
<tr>
<td>Patient's trust upon doctor</td>
<td>2.5714</td>
<td>.30214</td>
<td>105</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2023
Table 4 provides summary statistics for two variables: age and patient's trust in doctor. The mean indicates the average value, the standard deviation gives an idea of the spread of values around the mean, and N indicates the sample size. These statistics help to understand the central tendency and variability of the data for each variable.

**Table 5: Correlation of age and patient satisfaction**

<table>
<thead>
<tr>
<th>Patient's trust in doctor</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>105</td>
</tr>
</tbody>
</table>

The positive correlation coefficient of 0.259 suggests a weak positive linear relationship between a patient's age and their level of trust in the doctor. As age increases, it appears that there is a slight tendency for patient trust in their doctor to also increase. The p-value of 0.008 indicates that this correlation is statistically significant at the conventional significance level (usually 0.05). This means that the observed correlation is unlikely to have occurred by random chance alone, suggesting that there might indeed be a real relationship between age and patient trust in doctors.

**Table 6: Correlation of number of visit time and patient satisfaction**

<table>
<thead>
<tr>
<th>No of visit</th>
<th>Patient's trust upon doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>105</td>
</tr>
</tbody>
</table>

The positive correlation coefficient of 0.459 suggests a weak positive linear relationship between the number of visits and patient's trust in the doctor. As the number of visits increases, it appears that there is a slight tendency for patient trust in their doctor to also increase. The p-value of 0.000 indicates that this correlation is statistically significant at the conventional significance level (usually 0.05). This means that the observed correlation is unlikely to have occurred by random chance alone, suggesting that there might indeed be a real relationship between the number of visits and patient trust in doctors.
correlation coefficient is statistically significant or not. A significance level of 0.05 is often used as a threshold. If the p-value is less than 0.05, it suggests that the correlation is statistically significant, meaning the relationship between the variables is unlikely to have occurred by random chance. Hence, the p-value associated with this correlation is 0.000, which is less than 0.05. This indicates that the correlation is statistically significant.

Conclusion
The researchers aimed to examine the impact of trust on patient satisfaction in their study. The researchers specifically selected trust as the focal point to investigate how medical practitioners receive information from patients, their behavior towards patients, and their receptiveness to patient opinions and thoughts about treatment. The study explored whether doctors prioritize their patients' treatment. The researchers collected diverse perspectives based on patients' gender, age, and frequency of visits. The analysis revealed a significant correlation between age and patient satisfaction concerning trust. However, no significant correlation was found between gender and patient trust in doctors. Especially, TU Teaching Hospital, situated in Kathmandu, Nepal, adores a strong reputation, resulting in higher levels of patient trust compared to other hospitals. This hospital also draws a larger number of patients from various districts across Nepal.

References


