

PATIENT SATISFACTION IN HEALTHCARE: A STUDY OF HEALTH STATUS, SERVICE USE, HEALTH ISSUES, EXPENSES, AND FOLLOW-UP CARE

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ABSTRACT

It is observed that in India, where the most of the rural people depends on government health services, understanding the drivers of patient satisfaction is critical to improving healthcare delivery and outcomes. Patient satisfaction encompasses not just clinical care but also aspects such as affordability, availability of medicines, staff responsiveness, and the extent of post-treatment follow-up. Despite increased investment in infrastructure and human resources, many PHCs continue to grapple with challenges such as staff shortages, inadequate supply of medicines, and suboptimal hygiene. Due to which health care organizations time to time focusing on the increasing customers satisfaction using various types of new technologies and advancements. The present study explain the patient satisfaction in the context of public healthcare services, focusing on various determinants such as health status, frequency of service use, prevalent health issues, healthcare expenses, and follow-up care. Conducted in the Jogulamba Gadwal district of Telangana, the study involved 410 patients attending government health facilities. A structured questionnaire was used to collect data, and statistical methods including frequency distribution and chi-square tests were applied for analysis. The findings indicate that patients' satisfaction levels are closely linked to their general health status, affordability of treatment, and continuity of care through follow-up services.

KEYWORDS: Healthcare; Patient Satisfaction; Medical Expenses; Outpatient Department.

INTRODUCTION

Global competition on an emerging sector like hospitals drives the curiosity of patients and makes them more anxious towards the delivery of healthcare services. There is enormous improvement in the Healthcare systems and Patient satisfaction is reportedly a useful measure to provide a direct indicator of quality in healthcare, hence needs to be measured frequently so that a domesticated and localized healthcare plan could be developed. User satisfaction is a very important part of any clinical practice there-fore it is imperative to consistently undertake surveys in the community or facility to introduce better services. Patient satisfaction stands as a cornerstone of quality healthcare, reflecting not only the effectiveness of medical interventions but also the overall patient experience. One can define Patient satisfaction as a patient's reaction to several aspects of their service experience. In an evolving healthcare landscape, understanding the multifaceted determinants of patient contentment is crucial for improving service delivery and fostering positive health outcomes. Patients' satisfaction from health care decides the fate of healthcare providers and healthcare delivery system, and hence needs to be periodically measured to enhance the quality of services. This study, titled "Patient Satisfaction in Healthcare: A Study on Health Status, Service Utilization, Health Problems, Medical Expenses, and Health Worker Follow-up," delves into the intricate interplay of various factors that shape how patients perceive their care. We aim to explore how individual health status, the extent to which healthcare services are utilized, the presence and nature of health problems, the burden of medical expenses, and

the critical aspect of post-treatment follow-up by health workers collectively influence patient satisfaction. By examining these interconnected elements, this research seeks to provide valuable insights for policymakers, healthcare providers, and patients themselves, ultimately contributing to a more patient-centered and effective healthcare system. Patients' satisfaction from health care decides the fate of healthcare providers and healthcare delivery system, and hence needs to be periodically measured to enhance the quality of services.

REVIEW OF LITERATURE

Li, Cui, and Feng (2024), in their article titled "Enhancing Patient Satisfaction in Cross-Regional Healthcare: A Cross-Sectional Study in the Knowledge-Based Healthcare Landscape," aimed to examine the determinants of patient satisfaction in the context of China's cross-regional healthcare system amidst growing urbanization and healthcare mobility. Conducted as a cross-sectional study, the research evaluated satisfaction across six independent dimensions, focusing on patients receiving care outside their registered regions. The findings revealed a 70% satisfaction rate, with notable areas for improvement in communication and service efficiency. Medical competence and professionalism emerged as the most influential factors affecting satisfaction, while socio-demographic characteristics also significantly shaped patient experiences. The study concluded that enhancing information accessibility, tailoring services to specific patient profiles, and standardizing insurance policies are crucial for improving satisfaction. Overall, the study advocates for a patient-centered approach and strategic investment in healthcare staff competence to strengthen cross-regional healthcare delivery.

Ferreira et al. (2023), in their study titled "Patient Satisfaction with Healthcare Services and the Techniques Used for its Assessment: A Systematic Literature Review and a Bibliometric Analysis," aimed to identify the key determinants of patient satisfaction and address the gap in bibliometric analysis within this domain. Following the PRISMA framework, they systematically reviewed 157 English-language studies published between 2000 and 2021, sourced from Scopus, Web of Science, and PubMed. The methodology included both qualitative synthesis and bibliometric techniques such as co-citation and bibliographic coupling to determine influential authors, sources, and global trends. The review highlighted that medical care quality, communication between providers and patients, and patient age were consistently identified as critical factors influencing satisfaction. The study concluded that while there is a growing global focus on patient satisfaction, there remains a need for more standardized assessment methods and improved quality management in healthcare services.

Barve and Yeravdekar (2023), in their study titled "Assessment of Patients' Satisfaction about the Healthcare Services Provided by a Health Promoting University in India: A Mixed-Method Study," aimed to evaluate the satisfaction levels of beneficiaries availing healthcare services offered by a university outreach program in rural and peri-urban areas of Pune district. The researchers adopted a mixed-method design, conducting 622 exit interviews with outpatients from two primary-level clinics and 36 in-depth interviews with key informants and healthcare providers across 15 villages between July 2019 and March 2020. The study assessed satisfaction with clinical services, health education, and overall opinions. Findings revealed that over 75% of respondents expressed high satisfaction, citing the affordability and proximity of services. However, suggestions included improving access to injectables and

expanding the range of free medicines. The study concluded that the community was broadly satisfied with the outreach services and recommended extending these services to nearby underserved areas.

Manzoor et al. (2019), in their article titled "Patient Satisfaction with Health Care Services: An Application of Physician's Behavior as a Moderator," aimed to investigate the relationship between healthcare services and patient satisfaction in public hospitals in Pakistan, specifically analyzing the moderating role of physician behavior. Utilizing a descriptive survey design, the study collected data from 290 outpatient department (OPD) patients across three public hospitals using convenient sampling. The researchers measured patient satisfaction in relation to laboratory and diagnostic care, preventive healthcare, and prenatal care, applying regression analysis and SPSS Hayes process to test moderation effects. The results indicated a significant positive relationship between healthcare services and patient satisfaction, with physician behavior acting as a strong moderator in this relationship. The study concluded that enhancing physician interaction and professionalism can further improve patient satisfaction, and it provided future research directions to expand this framework in diverse healthcare contexts.

Vaz (2018), in the chapter titled "Patient Satisfaction" from the book *Healthcare Administration for Patient Safety and Engagement*, explores the critical role of patient satisfaction in healthcare systems by focusing on the perspectives of three key stakeholders: the patient, healthcare providers, and hospitals. The objective of the chapter is to emphasize how patient satisfaction influences not only adherence to treatment and clinical outcomes but also the reputation, patient retention, and financial performance of healthcare institutions. Using a conceptual and literature-based approach, the chapter highlights the growing importance of delivering a patient-centered experience in a competitive healthcare environment. It concludes that ensuring consistently high levels of patient satisfaction is essential for healthcare organizations to retain patient loyalty, enhance service value, and encourage positive word-of-mouth, ultimately supporting both better health outcomes and organizational success.

OBJECTIVES

- To examine the influence of health status on patient satisfaction with healthcare services.
- To assess the impact of healthcare service utilization frequency on levels of patient satisfaction.
- To analyze the relationship between different types of health problems and patient satisfaction.
- To evaluate how medical expenses affect overall patient satisfaction in healthcare settings.

HYPOTHESIS

H₀: There is no significant relationship between health status and patient satisfaction.

H₀: There is no significant association between the frequency of healthcare service utilization and patient satisfaction.

H₀: There is no significant relationship between the type of health problem and

patient satisfaction.

H0: Medical expenses do not have a significant effect on patient satisfaction.

METHODOLOGY

The study employed a descriptive cross-sectional research design to investigate the factors influencing patient satisfaction with healthcare services. A total of 410 patients were selected through a convenience sampling method from different healthcare facilities in Jogulamba Gadwal district of Telangana. Data were collected using a structured and pre-tested questionnaire, which included items related to health status, service utilization, types of health problems, medical expenses, and health worker follow-up. A pilot study was conducted prior to the main survey to test the clarity, reliability, and validity of the questionnaire. Based on the feedback, necessary modifications were made to ensure the tool's effectiveness. The collected data were analyzed using statistical techniques such as frequency distributions to summarize the characteristics of the respondents, and chi-square tests to examine the association between patient satisfaction and various socio-demographic and healthcare-related factors. The analysis provided insights into the key determinants influencing patient satisfaction in a rural healthcare setting.

Health Status and Patient Satisfaction

The health status of patients significantly influences their satisfaction levels, as it shapes their perceptions of the care they receive and the outcomes they experience. Individuals in good health or those who are witnessing improvements typically report higher satisfaction rates, likely due to their needs being adequately met and their positive outcomes being linked to quality care. Conversely, patients suffering from poor health, chronic illnesses, or terminal conditions often express lower satisfaction, which can be attributed to persistent discomfort, complicated treatment plans, or unmet recovery expectations. Furthermore, patients in compromised health may necessitate additional attention, clearer communication, and emotional support; failure to adequately address these requirements can lead to dissatisfaction. Psychological aspects also contribute to this dynamic - patients dealing with pain, anxiety, or depression may have a more negative perception of their care, even when clinical standards are upheld. Thus, it is essential to comprehend both the physical and emotional health status of patients to provide compassionate, tailored care that improves satisfaction and cultivates a more favorable healthcare experience.

Health Status and Patient Satisfaction

Health Status	Patient Satisfaction			Total
	Low	Moderate	High	
Good	95 (53.97)	42 (23.86)	39 (22.15)	176 (42.92)
Poor	122 (52.136)	57 (24.35)	55 (23.50)	234 (57.07)
Total	217 (52.92)	99 (24.14)	94 (22.92)	410 (100.00)

Chi Square Value = .154 df = 2 p = .926

The above table presents the distribution of health status among the respondents. Of the 410

individuals surveyed, nearly half (42.9 percent) classified their health as good or average, while a larger portion above half (57.1 percent) indicated that their health was poor. This indicates that the predominant health status among respondents is poor.

Within the group reporting good health, slightly more than half (54.0 percent) expressed low satisfaction, nearly a quarter (23.9 percent) reported moderate satisfaction, and around one-fifth (22.2 percent) indicated high satisfaction. In contrast, among those with poor health, the majority (52.1 percent) reported low satisfaction, followed by a quarter (24.4 percent) who reported moderate satisfaction and less than quarter (23.5 percent) who reported high satisfaction.

The data suggests that respondents in poor health exhibited marginally higher levels of low and moderate satisfaction compared to those in good or average health. Nonetheless, both groups had approximately one-quarter of respondents reporting high satisfaction, indicating that satisfaction levels were relatively consistent across both health categories. The Chi-square statistic is 0.154 with 2 degrees of freedom, and the p-value is 0.926. Given that the p-value exceeds 0.05, the association between health status and patient Satisfaction is not statistically significant, indicating no substantial association between a respondent's health status and their satisfaction with healthcare services.

Utilization of Health Services and Patient Satisfaction

The extent and manner in which patients utilize health services can significantly influence their level of satisfaction. Frequent users of healthcare services - such as individuals with chronic illnesses or those requiring regular check-ups - tend to have more opportunities to interact with providers, which can either enhance satisfaction through continuity of care or lead to dissatisfaction if experiences are consistently negative or impersonal. High utilization may also increase patients’ expectations regarding responsiveness, accessibility, and the coordination of care. Conversely, those who use health services infrequently may report high satisfaction based on limited interactions, often shaped by single episodes of care that meet immediate needs. Inadequate access, long waiting times, or complex administrative processes can diminish satisfaction regardless of how often services are used. Ultimately, patient satisfaction is closely tied to how well the healthcare system meets the needs of individuals across varying levels of utilization - highlighting the importance of efficiency, communication, and patient-centered care at every point of service delivery.

Utilization of Health Services and Patient Satisfaction

Utilization of Services	Patient Satisfaction			Total
	Low	Moderate	High	
Frequently	60 (54.54)	24 (21.23)	29 (25.66)	113 (27.56)
Not at all	157 (52.86)	75 (25.25)	65 (21.88)	297 (72.43)
Total	217 (52.92)	99 (24.14)	94 (22.92)	410 (100.00)

Chi Square Value – 1.057 df– 2 p - .590

The above table - presents the distribution of service utilization among respondents. Of the 410 individuals surveyed, slightly more than a quarter (27.6 percent) indicated that they frequently used services, while the majority (72.4 percent) reported not using services at all.

This indicates that the predominant group of respondents engages with services either frequently or not using services at all.

Among those who frequently utilize services, more than half (53.1 percent) expressed low satisfactions, approximately one-fifth (21.2 percent) reported moderate satisfaction, and just over a quarter (25.7 percent) indicated high satisfaction. In contrast, among respondents who use services often or not at all, slightly more than half (52.9 percent) reported low satisfaction, little more than quarter (25.3 percent) reported moderate satisfaction, and around one-fifth (21.9 percent) reported high satisfaction.

The data reveals that the largest segment of respondents uses services often and their satisfaction levels are comparable to those of frequent users, with both groups exhibiting the highest rates of low satisfaction. However, frequent users do show a marginally higher percentage of high satisfaction compared to those who use services often or not at all.

The Chi-square statistic is 1.057 with 2 degrees of freedom, resulting in a p-value of 0.590. Given that the p-value exceeds 0.05, the association between service utilization and patient satisfaction is not statistically significant, indicating that there is no substantial association between the frequency of service use and the level of satisfaction with healthcare services. Based on this findings the original; hypothesis that grater the utilization of health services poor will be the patient satisfaction is rejected as there is no association indicated.

Health Problem and Patient Satisfaction

The nature and severity of a patient's health problem play a critical role in shaping their satisfaction with healthcare services. Patients with acute, short-term issues often report higher satisfaction, especially when treatment is quick, effective, and results in noticeable improvement. In contrast, those dealing with chronic, complex, or life- threatening conditions may face prolonged treatment, frequent hospital visits, and emotional distress, all of which can impact their perception of care. These patients often require more time, clear communication, and emotional support, and if these needs are not met, satisfaction can decline - even when medical care is technically sound. Additionally, patients with stigmatized conditions, such as mental illness or certain infectious diseases, may feel judged or marginalized, further reducing their satisfaction. Therefore, healthcare providers must tailor their approach based on the type of health

problem, ensuring that care is not only clinically appropriate but also compassionate and responsive to the physical and emotional challenges each condition presents.

Health Problem and Patient Satisfaction

Health Problem	Patient Satisfaction			Total
	Low	Moderate	High	
General Health Issues	132(56.65)	27 (11.58)	74 (31.75)	233 (56.82)
Respiratory and Cold related issues	00 (00)	45 (75.00)	15 (25.00)	60 (14.63)

Reproductive and Pregnancy related issues	23 (53.48)	17 (39.53)	03 (06.97)	43 (10.48)
Skin Allergies	62 (83.78)	10 (13.51)	02 (02.70)	74 (18.04)
Total	217 (52.92)	99 (24.14)	94 (22.92)	410 (100.00)

Chi Square Value – 158.858 df – 6 p -.000

The above table illustrates the distribution of health problems among the respondents. Out of a total of 410 individuals surveyed, a significant majority (56.8 percent) indicated experiencing general health issues. This was followed by respondents reporting respiratory and cold-related problems less than one fifth (14.6 percent), skin allergies above one fifth (18.0 percent), and reproductive and pregnancy-related concerns few (10.5 percent). The data clearly indicates that the predominant health challenge faced by respondents is general health issues.

Within the subset of individuals reporting general health issues, a majority (56.7 percent) expressed low satisfaction with their health status, while few (11.6 percent) reported moderate satisfaction and about one third (31.8 percent) indicated high satisfaction. Among those experiencing respiratory and cold-related issues, majority (75 percent) of the respondents reported moderate satisfaction, quarter (25 percent) of the respondents reported high satisfaction, and none reported low satisfaction. In contrast, among respondents with reproductive and pregnancy-related issues, a significant portion more than half (53.5 percent) reported low satisfaction; above one third (39.5 percent) reported moderate satisfaction, and only a few (7.0 percent) respondents reported high satisfaction. For individuals with skin allergies, a striking large number (83.8 percent) of respondents reported low satisfaction, while less than one fifth (13.5 percent) reported moderate satisfaction and merely very few (2.7 percent) respondents reported high satisfaction.

This table highlights that the largest cohort of respondents, those facing general health issues, exhibits a higher rate of low satisfaction compared to other groups, although a considerable number also report high satisfaction. Respondents with respiratory and cold-related issues predominantly indicated moderate satisfaction, whereas those with skin allergies showed a markedly high incidence of low satisfaction. Among the various health issues, reproductive and pregnancy-related concerns had the highest percentage of individuals reporting low satisfaction. An analysis the chi-square values shoes a significant association between health problems and patient satisfaction. **Medical Expenses and Patient Satisfaction**

Medical expenses are a significant factor influencing patient satisfaction, as the financial burden of healthcare can greatly affect how patients perceive the value and fairness of the services they receive. High out-of-pocket costs, unexpected bills, or lack of insurance coverage often lead to dissatisfaction, even if the quality of medical care is high. Patients may feel stressed, anxious, or even resentful when medical expenses strain their personal finances, especially if they perceive the costs as unjustified or not transparently communicated. On the other hand, when patients receive affordable or well-explained care, or when insurance or government programs ease the financial burden, they are more likely to feel satisfied and valued. For economically vulnerable patients, even small expenses can become barriers to follow-up care or medication adherence, further impacting health outcomes and satisfaction.

To enhance patient satisfaction, healthcare systems must strive for greater cost transparency, fair pricing, and financial support mechanisms that reduce economic hardship and promote equitable access to necessary care.

Medical Expenses and Patient Satisfaction

Medical Expenses	Patient Satisfaction			Total
	Low	Moderate	High	
Low	132 (51.16)	45 (17.44)	81 (31.39)	258 (62.92)
Medium	74 (52.85)	53 (37.85)	13 (09.28)	140 (34.14)
High	11 (91.66)	01 (08.33)	00 (00)	12 (02.92)
Total	217 (52.92)	99 (24.14)	94 (22.92)	410 (100.00)

Chi Square Value – 42.684 df – 4 p - .000

The above table represents an analysis of patient satisfaction in relation to varying levels of medical expenses reported by the participants. Among the 410 individuals surveyed, a significant majority (62.9 percent) indicated low medical expenses, while about one third (34.1 percent) reported medium expenses, and a mere very few (2.9 percent) acknowledged high medical expenses. This data suggests that the predominant group of respondents falls within the low medical expense category.

Within the low expense group, a notable (51.2 percent) expressed low satisfaction regarding their health status, less than one fifth (17.4 percent) of the respondents reported moderate satisfaction, and about one third (31.4 percent) indicated high satisfaction. In the medium expense category, more than half (52.9percent)t reported low satisfaction, about one third(37.9 percent) expressed moderate satisfaction, and only very few(9.3 percent)indicated high satisfaction. Conversely, among those with high medical expenses, an overwhelming majority (91.7 percent) reported low satisfaction, very few (8.3percent) indicated moderate satisfactions, and none reported high satisfaction.

This table underscores a trend of low satisfaction across all levels of medical expenses, particularly pronounced among those with high expenses, where dissatisfaction approaches totality. Although respondents with low medical expenses demonstrate relatively higher rates of high satisfaction compared to other groups, they still show a significant degree of dissatisfaction. The medium expense group exhibits a more even distribution of satisfaction levels but still leans towards lower satisfaction. Overall, individuals facing higher medical costs consistently report diminished satisfaction, indicating a possible correlation between increased medical expenditures and reduced patient satisfaction. On resulting, the chi-square test revealed that medical expenditure significantly associated with patient satisfaction and this association inverse. Thus the original hypotheses is accepted Health worker follow-up after treatment of the patient and Patient Satisfaction. The follow-up conducted by healthcare professionals after a patient's treatment is essential for improving patient satisfaction, as it signifies ongoing care, concern, and responsibility. When health workers engage in follow-up - whether via phone calls, messages, or face-to-face interactions - it reassures patients that their health is a priority beyond the immediate treatment. This continuous communication aids in the early detection of complications, promotes adherence to treatment plans, and

provides an opportunity for patients to raise questions or share concerns. Patients who experience timely follow-ups typically feel more supported, informed, and involved in their recovery journey, which greatly enhances their satisfaction. In contrast, a lack of follow-up can result in patients feeling overlooked or uncertain about their recovery, potentially leading to dissatisfaction or even readmission. Furthermore, effective follow-up fosters trust and fortifies the relationship between patients and providers, increasing the likelihood that patients will seek future care and recommend the facility to others. Therefore, implementing systematic follow-up practices is a vital aspect of patient-centered care and overall satisfaction.

Health worker home visit and patient and Patient Satisfaction

Health worker follow-up	Patients Satisfaction			Total
	Low	Moderate	High	
Frequently	31 (60.78)	12 (23.52)	08 (15.68)	51 (12.43)
Sometimes	184 (54.59)	80 (23.73)	73 (21.66)	337 (82.19)
Never	02 (09.09)	07 (31.81)	13 (59.09)	22 (05.36)
Total	217 (52.92)	99 (24.14)	94 (22.92)	410 (100.00)

Chi Square Value – 23.279 df – 4 p - .000

Table above table provides an examination of patient satisfaction in relation to the frequency of follow-up by health workers among the 410 individuals surveyed. A significant majority of respondent’s large number of respondents (82.2 percent) indicated that they were only occasionally contacted by health workers, while less than one fifth (12.4 percent) reported receiving frequent follow-ups and a minor segment few (5.4 percent) stated they had no follow-up at all. This indicates that while intermittent follow-up is common, consistent and proactive engagement remains scarce.

Among those who experienced frequent follow-up, majority (60.8 percent) reported low satisfaction, less than a quarter (23.5 percent) indicated moderate satisfaction, and little more than one fifth (15.7 percent) expressed high satisfaction. In contrast, among individuals who were followed up occasionally, more than half (54.6 percent) reported low satisfaction, less than quarter (23.7 percent) indicated moderate satisfaction, and less than a quarter (21.7 percent) expressed high satisfaction. Interestingly, within the group that did not receive any follow-up, only few (9.1 percent) reported low satisfaction, while less than one third (31.8 percent) indicated moderate satisfaction and a notable more than (59.1 percent) expressed high satisfaction.

Despite patients receiving frequent or occasional follow-ups reporting predominantly low satisfaction levels, those who did not receive any follow-up exhibited significantly higher satisfaction levels, with the majority (60 percent) indicating high satisfaction. This may imply that patients with fewer health issues or greater self-efficacy may not require follow-up, which could positively affect their satisfaction. Conversely, patients who receive more frequent follow-ups may have more complex health needs, potentially leading to lower satisfaction regardless of the frequency of follow-up.

The Chi-Square statistic of 23.279, accompanied by 4 degrees of freedom and a p-value of

0.000, demonstrates a statistically significant correlation between the follow-up provided by health workers and patient satisfaction. This result reinforces the idea that the frequency of follow-up is significantly related to patients' perceptions of their health and care experiences. However, it is important to note that this association may be affected by additional factors, including the patients' health association or the complexity of the care they receive.

Conclusions

Patient satisfaction was highest among those who never received health worker follow-up, suggesting that these patients might rely more on self-initiated care or other aspects of the healthcare service. In contrast, those with frequent or occasional follow-ups reported lower satisfaction, indicating that follow-up alone may not enhance satisfaction unless it is supported by quality and effective care. Previous studies have shown that patients were highly satisfied with the affordable and accessible healthcare services provided by the university's outreach clinics. However, there remains a need to expand service offerings, such as providing injectables and free medicines, and to extend coverage to nearby underserved areas.

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