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A Study the Patient Satisfaction in Emergency Medicine

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Abstract - Patient satisfaction determines healthcare service effectiveness. Its extensive study can reveal both well-functioning & problematic components of a hospital, making it an essential part of the quality assessment. 375 patients admitted to the King Abdulaziz Medical City in Saudi were the focus of this descriptive cross-sectional study designed to gauge patient satisfaction & identify contributing factors. Patients were chosen using non-random convenience sampling and were asked to fill out a validated survey twice (in August/September and December/January). The majority of respondents (50.8 percent) said they were happy with the study. Patients were more likely to be satisfied with their care overall if they were treated in the primary ED, admitting to the hospital first thing in the morning, attended the ED during the off-season (Aug-Sept), and had shorter wait times to see a clinician.. The admission process garnered the highest level of patient satisfaction, while the nursing care received the lowest.

Keywords- Emergency Departments, Hospital, Patient, Healthcare, Satisfaction

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INTRODUCTION

Emergency departments (EDs) must treat all acute situations (Derlet 2001). The majority of people who use emergency rooms are not happy with the care they receive (Huang JA, 2004). Patients in need of emergency care at a hospital or other primary care facility should be seen right away (Mahfouz AA, 2007). Despite being ready to deal with emergencies and doing their best to provide skilled care, emergency room staff are sometimes unable to avoid overcrowding, leading to delays in treatment, a negative therapeutic environment, and even poor clinical outcomes. An essential measure of emergency medicine's success is the satisfaction of its patients. The term "patient satisfaction" is used to describe a person's level of happiness & satisfaction with the treatment they received at a hospital's emergency room (ER) or during other emergency medical interventions. Low patient satisfaction may indicate possible areas for improvement in the emergency healthcare system, whereas high satisfaction is indicative of quality care and can lead to better health outcomes, higher compliance with treatment regimens, & favorable word-of-mouth recommendations.

Previous research has linked shorter waiting times to higher patient satisfaction with visits to the emergency department. Therefore, EDs that want to boost patient satisfaction may choose to focus on cutting down on wait times (Handel, 2014). In a study of patients presenting to the ED with acute painful symptoms, the level of PS was initiate to be significantly related with the level of successfully managed pain (Nichol, 2009). A recent study identified the following factors as the most essential in predicting PS: communication, overall practice, treatment timeliness, & care quality. Patients frequently complained about long wait times, ineffective pain treatment, and subpar nursing care. Patients' levels of satisfaction were not significantly different based on their gender, race, ED disposition, the gender of their treating physician, or whether or not they were in agreement about their diagnosis. Patients were more likely to give positive feedback to female ER doctors (Bhakta, 2014). Patient satisfaction with emergency care increases dramatically when wait times are reduced (Abolfotouh, 2017). In a similar vein, research was conducted in Riyadh at King Abdulaziz Medical City (KAMC). The purpose of this research was to assess how content KAMC emergency department patients were with the care they received there.

LITERATURE REVIEW

Alessandro Stefanini et al. (2021) We used Sociometric Badges to study patient-doctor interaction in a busy university hospital's ED. Providers (doctors & nurses) were given wearable sensors (Sociometric Badges) equipped with

accelerometers, microphones, Bluetooth, & infrared sensors to measure body movements and speech energy. Patient satisfaction and the perceived quality of services received were found to be significantly influenced by behavioral & network features. Patients value their doctors' accessibility & constant attention they receive from their caregivers. They also want to be an integral part of the communication system with working professionals. Furthermore, patients have a favorable impression of teams in which physicians actively lead the communication network & guarantee productive team discourse.

Ghassan Abass et al. (2021) The success of healthcare reform initiatives can be gauged by looking at how satisfied patients are with their treatment. ED consistently has the lowest customer satisfaction scores. Since the ED is often a patient's first encounter with a healthcare provider, we were interested in learning more about their experiences there. Patients who spoke Arabic & visited our ED were surveyed using the ED-CAHPS questionnaire, a standardized validated nine-item survey questionnaire, via telephone interviews for this cross-sectional study. Predictors of patient satisfaction were analyzed, including patient demographics, ED operation parameters, & healthcare utilization indicators. Two hundred patients (out of a total of 713) filled out the survey. Overall, 70% of respondents were between the ages of 35 & 64, and 55% had some college under their belt. Questions about arrival, waiting time, & urgency of treatment averaged 36% on the dimension. Only 40% of patients were satisfied with the interpretation services, and only 42% were happy with the pain management. Average satisfaction across all dimensions for nursing care was 43%, while satisfaction for medical treatment was 36%. Average satisfaction with the discharge procedure was 56% across all dimensions. Patients who were asked about follow-up care (61%), knew what symptoms to watch for after leaving the ED (58%), and were seen within 30 minutes of their arrival at the ED (56%), received the best marks. However, the lowest ratings were given for whether or not patients were made aware of the potential risks associated with new prescriptions (29%), whether or not nurses spent enough time with them (33%), and whether or not doctors spent enough time with them (34%). Recommendations were made to enhance patients' perceptions & experiences while receiving care, as well as the quality of care as a whole, based on these findings. This research provides actionable suggestions for improving the quality of primary ED care in Saudi Arabia.

Alina Abidova et al. (2020) Various factors have been identified as potential predictors of patient satisfaction in the field of emergency medicine (EM), with varying levels of support based on the unique EM qualities, cultural aspects, preferences, & techniques of the researchers involved. It is unclear, however, whether patients' perceptions of satisfaction & quality of healthcare create the same attitude or whether patients' perceptions of satisfaction & quality of healthcare form different attitudes. The purpose of this research was to determine the most important factors that influence a patient's perception of the quality of care they get in an ED. We looked back at the records of patients who visited an ED between the months of January & December of 2016. Information was gathered from May - November 2017 in a public hospital in Lisbon, Portugal. The overall number of participants was 382. The confidence interval and margin of error for the sample distribution were 95% & 5%, respectively. This survey data was collected via postal mail or electronic mail, depending on the option of the respondent. Overall satisfaction with doctors & satisfying expectations were the primary determinants of satisfaction & perceived quality of treatment. While "meeting expectations" is the most influential factor in patient happiness, "overall satisfaction with doctors" is the most influential factor in PQHC because of its better association. Comparing the qualitative perceived waiting time for triage as additional predictor, influencing satisfaction only, reveals similarities & differences between satisfaction & PQHC in an ED setting.

Miriam Griffin et al. (2016) The primary aim of this survey was to evaluate the quality of care delivered by an advanced nurse practitioner (ANP) service in an ED & learn about patients' experiences with this service. Patients in Irish emergency rooms are increasingly being treated by ANPs. The evaluation of ANP services is incomplete without considering their effect on patient outcomes. This study employed a prospective survey strategy with a self-administered questionnaire. The ANP service was viewed favorably by the vast majority of responders. Patient satisfaction was high in all areas, including wait times, pain relief, recommendations, & dialogue. This poll showed that the ANP service provided high-quality care, and that patients were satisfied as a result.

Zohrevandi, B., & Tajik, H. (2014). One key indication of emergency treatment quality & health consequences is patients' satisfaction (PS). Some academics maintain that hospitals and healthcare providers cannot enhance their operations or the quality of their services without putting patient feedback, needs, expectations, and satisfaction first. An evaluation of Poursina Hospital's ED PS in Rasht, Iran was the focus of this percent study. Patients admitted to the emergency room at Poursina Hospital in Rasht, Iran, in 2013 were used as samples in this descriptive cross-sectional study. Each patient was given a checklist and questionnaire with 37 questions regarding PS, including topics such the level of physical and residential comfort, the quality of treatment provided by physicians and nurses, the nature of the patients' behaviors, and the length of time they had to wait before receiving

services. SPSS version 16 was used to analyze the data. Totaling 378 participants, the average age was 38.4417.8 (60.8% male), and there were no serious adverse events. Overall, ED patients were 106.9413.62 percent satisfied (range: 72–144). The average score for physical comfort was 33.254.76 out of a maximum of 55, while the average score for nurse care was 25.335.13 out of 40, the average score for physician care was 24.343.38 out of 40, the average score for waiting time for services was 13.425.48 out of 30, and the average score for behavioral elements was 10.582.66 out of 20. PS, sex, and admissions pattern changes were significantly related (P<0.0001) & statistically significant (P<0.023). According to the results of a 100% satisfaction research, providing emergency services to patients in areas such as physical comfort & residential aspects, physician treatment, nursing care, and overall ED satisfaction is generally well-received. It may be useful to evaluate & compare satisfaction & dissatisfaction parameters before and after implementing modifications on a regular and ongoing basis.

Patrícia Fátima Levandovski et al. (2015) The goal of this study is to evaluate the nursing care usual by hospital emergency patients. This research is cross-sectional, descriptive, & quantitative. The sample included 250 people over the age of 18 who had to use an emergency service in southern Brazil. A patient satisfaction survey and a registration form were used to compile the information. Patient satisfaction with nursing care appears to be high based on these findings, with the greatest mean in the technical-professional care sector. The patient's age, education level, and duration of stay in the facility all had a substantial impact on their level of satisfaction. The results indicated that the majority of patients were satisfied with the emergency nursing services they received.

Jullet Buchanan RN et al. (2015) The quality of nursing care is a crucial determinant of patient satisfaction because nurses make up the largest portion of the workforce in hospitals. The Aim of this analysis is to evaluate how satisfied patients are with the nursing care they receive in the emergency room of a large, urban, teaching hospital in Jamaica. Using a convenience sample strategy, this descriptive cross-sectional study enrolled 142 adults who sought nursing treatment in the ED's emergency and intermediate care settings. A 22-item survey based on the Patient Satisfaction with Nursing Care Quality Questionnaire was used to compile the data, which was then analyzed using SPSS® for Windows® version 19.0. The response rate was 77.6%; the majority of respondents were female (62%), and nearly half had only completed secondary school (42%). Most patients (59.9%) said they were extremely satisfied with the nursing care they received in the emergency room, and the mean satisfaction score was 32.60 (7.11) out of a possible 42. Clients with higher levels of education reported greater satisfaction with their nursing service. PS was related to their perception of their health and the compassion of their nurses (p = 0.05). In the investigated emergency room, patient satisfaction with nurse care was quite high. Patients' level of education, their estimation of their own health, and the compassion of their caregivers all had a role in their overall happiness.

Matthew W. Morgan et al. (2015) The main goal of this study was to determine which objectively measured patient demographics, ED operational characteristics, & healthcare utilization frequencies (care factors) were linked to patient satisfaction ratings after being discharged from our ED by means of phone surveys administered by a third-party vendor. For this study, we used a retrospective, observational design to analyze data from a third-party patient satisfaction vendor who contacted all English & Spanish-speaking patients discharged from our ED between September 2011 and August 2012 and asked them to complete a standardized nine-item telephone survey. We were able to supplement our understanding of the patient's demographics, experiences in the ED, and healthcare utilization by linking survey responses to the EMR. We used univariate ordinal logistic regression and then two multivariate models to determine what factors were most strongly associated with patient satisfaction. A total of 20,940 patients' records were evaluated. Twelve thousand and five hundred patients reported being satisfied, with ratings from one (two percent) to five (eighty percent). Patient satisfaction increased with age, race/ethnicity (Non-Hispanic Black; Hispanic patients), insurance, mode of transportation (bus or on foot), and the need for medication provided in the ED. Patients who waited longer, were seen in our ED's mental health section, and did not feel their medical condition improved were more likely to be dissatisfied. These findings lay the groundwork for future research into how to improve the ED experience for patients.

Aleksandra Zgierska et al. (2014) Patient satisfaction surveys might yield great results, but they also carry the risk of unexpected consequences. This research attempted to assess how clinicians' perceptions of patient satisfaction affected their own sense of professional fulfillment & patient outcomes. In order to measure the impact of patient satisfaction surveys, a state medical organization in 2012 created a 26-item survey that was distributed online to its physician members. Participants were not identified. 300 & 35 doctors responded Fifty-nine percent said they were paid based on how satisfied patients were. Eighty-two percent said that PS surveys had an impact on how happy they were in their jobs, and twenty-eight percent said that they had contemplated leaving medicine altogether because of the polls. Twenty percent said patient satisfaction data threatened their jobs. Almost half of the sample thought that the pressure to improve results led to the administration of unneeded care, such as antibiotic & painkiller prescriptions, testing, procedures, and hospital hospitalizations. Only three

of the fifty-two qualitative comments were positive. These preliminary findings from pilot studies raise concerns that the use of PS surveys may increase job discontent, physician turnover, and substandard clinical care in some settings. This is worrisome, especially in view of the increasing use of PS ratings as a quality-of-care metric, and it calls for a careful analysis of the best practices for conducting & analyzing surveys.

MATERIALS AND METHODS

Design

From December 2020 to September 2021, KAMC conducted a cross-sectional study. Because it has one of the greatest trauma treatment facilities in Saudi, this infirmary was chosen as the study site. There are 132 available beds in the emergency ward and other surgical & critical care areas of the hospital. The burn unit, ICU, endoscopy suite, ORs, and neurosurgery & surgical departments are all top-notch examples of these types of facilities.

Sampling

We calculated the necessary sample size using Raosoft (2016), with inputs including a 5% margin of error, 95% confidence level, 21,000 patients each month in the population, & 65% response rate. There should have been at least 344 people in the sample. Participants were chosen using a non-random method of convenience. Patients over the age of 18 who were admitting to the ED during the work recruitment period were welcome to take part. Patients with severe problems (such as significant injuries) or who had trouble communicating were not included. Approximately one-quarter, or 98 people, were drawn from the flu clinic, while the remaining three-quarters, or 277 people, and were drawn from the main ED. A total of 194 people (51.7% of the total) were enlisted in the summer, while 181 people (48.3% of the total) were enlisted in the winter.

Data Collection

This study's questionnaire collected data. The pilot study involved administering the questionnaire to a subset of the intended respondents over the course of two weeks to determine its viability & make any necessary revisions. The survey can be found and is translated into Arabic and English. Two doctors reviewed the content to make sure it was accurate. To ensure accuracy, a reverse translation was carried out. Researchers or ED staff were there to help participants who needed it when they self-administered the questionnaire. The survey has two major sections. The first set of questions inquired about the patient's demographic information (such as gender, age, nationality, & level of education), admission time (between 7 a.m. - 3 p.m., 3 p.m. -11 p.m., & 11 p.m. - 7 a.m.), treatment location, and while determining whether or not a patient has returned to the ER for the same problem. In the survey's second component, respondents were asked to use a Likert scale to evaluate a series of assertions. Hospital admittance, nurses, doctors, and others were covered in the comments, which comprised a yes/no question and three free-form questions. The first set of numbers were gathered in August & September, when school was out for the summer & population was at its lowest, and the second set was gathered in December and January, when the population was at its greatest.

King Abdullah International Medical Research Center's institutional review board (IRB) has placed restrictions on the data supporting the findings of this study to preserve patient confidentiality. In order to obtain data, researchers must first contact the associated author and demonstrate that they meet the conditions for access to the material.

KAMRC institutional review board gave its clearance for the study to proceed. Each respondent voluntarily participated & gave their written informed consent for the study. Study participants were not required to reveal any personally identifying information, such as names or medical record numbers. Information was restricted to the study's researchers only.

Data Analysis

Standard deviations (SD), means, and medians were utilized to describe the data. Patient satisfaction was correlated with several demographic & healthcare variables using analytical statistics. The independent samples t-test, Mann-Whitney test, analysis of variance, & Pearson's correlation coefficient were utilized to look into the numerical data, while Pearson's chi-square & Fisher's exact test were employed to examine the categorical data. On a scale from 1 to 5 where 1 was "very unsatisfied" and 5 was "extremely satisfied," respondents rated their own satisfaction. After that, we recoded the results so that a score of 4 or 5 indicated "very good to excellent," a score of 3 meant "good," and a score of 1 or 2 meant "fair to poor." A sixth option was provided for several questions to indicate that they were irrelevant. A logistic regression analysis was performed, and the findings were used to recode the overall satisfaction rating into two groups: "good to excellent" and "fair to poor." The model incorporated demographic parameters (such as age & level of education) and hospital inpatient care features (such as day & time of visit) as independent variables. Chi-square tests were used to determine which variables would be included in the model. The information was analyzed by utilizing SPSS 20.0 (IBM Corp., Armonk, NY, USA). Statistical significance was assumed when the P-value was less than 0.05.

RESULTS & DISCUSSION

Patient Characteristics

The characteristics of the participants are summarized in Table 1. There were a total of 375 participants in the study, with the vast majority (90.7%) being Saudi (340 participants). Of the total, 189, or 50.4%, were women. Since the primary ED sees the greatest volume of patients, the majority of the sample (n = 277; 73.9%) came from there. In addition, morning shifters accounted for 28.8 percent of admissions, evening shifters for 42.7 percent, and night shifters for 13.8%; 85.2% of patients had not attended the ED in the preceding three days for the same disease.

Table 1 Characteristics of Patient

Variable	Descriptive Statistics
Age, y	n (%)
15-24	62 (16.5%)
25-49	117 (31.2%)
50-64	131 (34.9%)
≥ 65	65 (17.3%)
Gender	
Male	186 (49.6%)
Female	189 (50.4%)
Nationality	
India	340 (90.7%)
Non-India	35 (9.3%)
Level of education	
Illiterate	61 (16.3%)
Primary-high school	191 (50.9%)
Higher education	123 (32.8%)
Treatment Area	
Main ED	277 (73.9%)
Flu clinic	98 (26.1%)
Time of Visit	
Morning shift	108 (28.8%)
Evening shift	160 (42.7%)
Night shift	107 (28.5%)
Hospitalization for the Same Reason in the Past 3 days	
Yes	55 (14.7%)
No	320 (85.3%)
Phase	
Winter	181 (48.3%)
Summer	194 (51.7%)
Day of Visit	
Sunday	10 (2.7%)
Monday	109 (29.1%)
Tuesday	76 (20.3%)
Wednesday	16 (4.3%)
Thursday	164 (43.7%)
Waited >15 min. to See the First Doctor	
Yes	152 (40.53%)
No	223 (59.46%)
Waited >1 hour to See the Second Doctor	
Yes	101 (26.93%)
No	274 (73.06%)

ED Satisfaction by Domain

The average mean satisfaction scores for the four categories & overall score are shown in Tables 2 & 3, respectively. Patients in the ED reported an average level of satisfaction of 57.59 (8.69) on a scale from 19 to 70. Admission received the most "excellent" ratings (171; 45.8%), while nursing care received the most "poor" ratings (141; 37.6%). Overall, 96 out of 100 people (50.8%) felt satisfied.

Table 2 Mean satisfaction in domain

Domain (n)	Mean (SD), Range
Admission (373)	8.67 (1.61), 2-10
Nursing Care (367)	17.03 (2.989), 6-20
Doctor Care and Treatment (352)	12.95 (2.285), 4-15
Other Services (196)	19.02 (4.168), 5-25
Overall Satisfaction (189)	57.49 (8.69), 19-70

Table 3 Each domain's satisfaction percentage

Domain	Fair/Poor	Good	Excellent/Very good
Admission	47 (12.6%)	155 (41.6%)	171 (45.8%)
Nursing Care	141 (37.6%)	78 (20.8%)	148 (39.5%)
Doctor Care and Treatment	128 (34.1%)	94 (25.1%)	130 (34.7%)
Other Services	49 (13.1%)	52 (13.9%)	94 (25.1%)
Overall Satisfaction	52 (27.5%)	96 (50.8%)	41 (21.7%)

Contributing Factors to PS

Patient satisfaction was highest for those who came to the ED between 7 a.m. and 3 p.m., and lowest for those who came between 3 p.m. and 11 p.m. (p0.001). Travelers who came on Sundays were far less pleased than those who came on Mondays or Thursdays (p=0.002 and 0.047, respectively). Additionally, Monday visitors reported higher levels of satisfaction than Tuesday visitors (p=0.043). The proportion of dissatisfied patients was highest among those who had been hospitalized during the previous three days (p=0.007) and lowest among those who had not been hospitalized within the previous three days (p<0.001). Dissatisfaction was found to be substantially higher among Saudi patients than among patients of any other nationality (p=0.023).

Contributing Factors Affecting Patient Admission Satisfaction

Patients admitted to the primary ED on the morning shift, and hospitalized on Monday reported significantly greater levels of satisfaction with their treatment. Those who went to the ED during the off-peak times & those who did not have to waiting long to see a doctor also reported higher levels of satisfaction (p=0.014 & p<0.001, correspondingly).

Contributing Factors Affecting Nursing Care PS

Monday patients (p=0.022), winter patients (p=0.010), morning shift patients (p=0.004), and primary ED patients (p=0.004) reported significantly higher levels of satisfaction with their nurse treatment than patients seen at any other period. The longer a patient had to wait to see a doctor, the less satisfied they were with the service they received. Higher levels of patient satisfaction were indicated by those who did not have to wait long for nurse attention (p<0.001).

Contributing Factors to Overall Doctor-Patient Relationship Satisfaction

The highest levels of patient satisfaction were indicated by those who were seen by their doctors in the morning (p<0.001), throughout the winter (p=0.003), & less than 150 minutes.

Factors Affecting Other Service Patient Satisfaction

Both patients who had to wait to be seen in the ED (p<0.001) and those who had recently been hospitalized (p=0.001) due to ED services reported lower levels of satisfaction. Non-Saudi (p=0.008), low-literacy (p=0.017), & morning-shift (p<0.001) patients reported considerably greater satisfaction rates.

Written Complaints

The most common sources of dissatisfaction were nurses (language barrier concerns), lengthy waits for specialist consultations, and inadequate explanations of test & imaging results. Understanding the elements that contribute to patient satisfaction is especially important in the ED due to its unique setting. In this study, researchers looked at how satisfied patients were with the ED across four service categories: admission, nursing care, doctor care, & treatment. Opportunities for improvement, such as the strategic formulation of health plans, might be uncovered through patient review of care. Based on our findings, there are specific places where emergency treatment should be strengthened.

A significant predictor of patient satisfaction was the length of time they had to wait. Patients who did not have to wait long to see the doctor reported higher levels of satisfaction. PS has been shown to have a substantial correlation with waiting time, with longer waiting periods being associated with lower levels of patient satisfaction in a number of prior research. The morning shift patients were much happier than the night shift patients (p<0.001). There is a lack of data showing how different hospital shifts affect patient satisfaction. Changes in hormone levels, an increased risk of cardiovascular disease, sleep-cycle abnormalities, and extreme exhaustion can all occur from working shifts that conflict with a person's natural 24-hour cycle. One study looked at how shift work affects the doctor-patient dynamic in the context of emergency medicine and found that patients who were seen in the morning were more satisfied with their care than those who were seen in the afternoon. The satisfaction levels of night-time patients were lower than those of morning-time patients. Five consecutive night shifts were associated with a significant reduction in cognitive performance in ED physicians, according to another study.

Patients who went to the ED during the off-season were more pleased than those seen during the busy season. During peak times, the Emergency Department sees more patients than usual, which might put a strain on the facility's resources. Patient satisfaction has been demonstrated to decrease dramatically in situations where there was more crowding. Patients suggested a number of ways in which the services could be enhanced, such as identifying physicians (which has been shown to growth patient satisfaction), working more closely with specialists to shorten wait times for consultations, enhancing communication between the emergency room & imaging department (due to the high volume of imaging requests that had to be postponed), training nurses to better explain their diagnoses & treatment plans, and providing chairs for accompanying family members.

CONCLUSION

ED are responsible for treating acute situations. Patients appear to be generally unsatisfied with emergency health services & contribute to the overcrowding of ED. Patients needing urgent medical attention at an ED or similar facility must be seen right away. An ED's ability to gauge the quality of its care based on patient satisfaction is influenced by many factors. Patient satisfaction with emergency departments is mostly determined by the quality of nursing service, medical care, time spent waiting, & length of visits. Overall, 45.8 percent of patients rated their satisfaction as "excellent" with their admittance experience, whereas 141.6 percent rated it as "poor" with their nursing care. Overall, 96 out of 100 people (50.8%) felt satisfied. Patients who came in the morning for treatment reported higher satisfaction rates than those who came between 3 and 11 at night. There was an acknowledgement of discontent as a potential growth sector. Patients who were visited by a second doctor in less than two & a half hours, who were seen during the morning shift, and who were treated during the winter reported higher levels of satisfaction with their doctors' care. Patient satisfaction was also connected to demographic characteristics including race & education level. Patient satisfaction was highest among non-Saudis and the illiterate. More study is required to evaluate particular facets of medical care delivery. Reports on patient satisfaction can be used in conjunction with other data on quality. A standardized instrument that accurately reflects the primary objectives of patient satisfaction needs to be developed.

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