Quality of Care Satisfaction among Patients in the Kingdom of Saudi Arabia

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ABSTRACT

Background: Many individuals in need of acute health services visit the emergency department (ED) as their initial point of contact. Patient satisfaction with emergency healthcare services was assessed in this pioneering study, which utilized the Arabic version of the Echelle de Qualité des Soins en Hospitalisation (EQS-H) and surveyed patients from various regions of Saudi Arabia.

Methodology: The subjects of this cross-sectional survey were 2,997 patients who were admitted to the emergency departments of hospitals located in various regions of Saudi Arabia. Utilizing the EQS-H, a self-reported questionnaire validated to measure patient satisfaction with ED healthcare services, the research was conducted. We utilized an Arabic version of the questionnaire for this research. The statistical analyses were conducted utilizing version 3.6.3 of R.

Results: In total, 2,997 patients participated in the study; 36.7% were male and 63.3% were female. In relation to geographical location, the proportion of participants hailing from the central region in the sample was 31.7% (or one-third), while the eastern, western, and southern regions each contributed 24.1% (16.9%), 14.6%, and 14.6%, respectively. The results of the statistical analysis indicated that the central region exhibited a substantially higher average percentage score for information clarity in comparison to the other regions, while the eastern region displayed the lowest score. A shorter length of stay (LOS) in the emergency department (ED), male gender (B = -1.63 and P < 0.05), Saudi nationality (B = -3.81 and P < 0.05), a worse perceived health state (B = -2.19 and P < 0.001), and lower scores on the life satisfaction scale were all significantly correlated with decreased levels of satisfaction with ED services. The most robust indicator of contentment is perceived progress.

Conclusion: Patients admitted to emergency departments (EDs) across various regions of Saudi Arabia expressed moderate levels of satisfaction with regard to both the lucidity of information and the association with staff. Notably, the central region exhibited superior outcomes in this regard.

Categories: Emergency Medicine

KEYWORDS: Saudi Arabia, quality of care, emergency medicine, satisfaction, patient

ARTICLE DETAILS

INTRODUCTION

An increasing number of initiatives are being made to compare the quality of service provided by healthcare organizations by analyzing patient satisfaction data. Unavoidably, such endeavors give rise to inquiries concerning the impartiality of the comparisons. Presumably, healthcare organizations should not be penalized (or rewarded) by fair comparisons for

variables that impact satisfaction scores but are beyond the control of administrators or clinicians. The demographic characteristics of patients (e.g., age) and the institutional characteristics of the healthcare organizations where care was received (e.g., size) may be among these variables, according to previous research [1].

Patient satisfaction pertains to the degree to which individuals receiving healthcare services from their healthcare provider are content. The level of patient satisfaction is a critical determinant of a healthcare facility's success [2]. It is the cognitive assessment and affective response of an individual to their healthcare encounter. Several determinants of patient satisfaction are within one's control: physician-patient communication, establishment of reasonable expectations, reduction of waiting periods, and maintenance of care continuity. Given that individuals seeking acute care frequently visit emergency care first, their level of satisfaction with this setting can function as an indicator of its quality [3]. The objective of this research endeavor was to evaluate the degree of patient contentment within the emergency department (ED) and ascertain the determinants that influence such contentment.

MATERIALS AND METHODS

A cross-sectional study was undertaken to evaluate the degree of patient satisfaction in the emergency department and ascertain the determinants of patient satisfaction in Saudi Arabian emergency departments. The Institutional Review Board of Imam Mohammad Ibn Saud Islamic University granted approval for the study design. The research population comprised individuals aged 18 years and older residing in Saudi Arabia. Regarding the determinants of emergency department satisfaction, information was gathered from the populace of the Kingdom of Saudi Arabia via an online survey implemented via social media.

Participants were excluded if they were under the age of 18. Written informed assent was acquired from every participant. The necessary sample size was determined utilizing version 7.2 of the Epidemiological Information Package (EPI INFO) developed by the Centers for Disease Control and Prevention in Atlanta, GA. Based on the software's estimation, the population of individuals aged 18 and above in Saudi Arabia is 26,456,921. To achieve the required sample size of 385 participants, at least one from each region of the country, with a 50% expected frequency, a 95% confidence level, and a margin of error of ±5% are required.

QUESTIONNAIRE

Approval was obtained to utilize the multi-item questionnaires utilized in the data, which were adapted from a previously published study conducted in King Abdulaziz Medical City [4]. Patients' satisfaction with the quality of medical and nursing care was evaluated using the Arabic version of the Echelle de Qualité des Soins en Hospitalisation (EQS-H), a self-reported questionnaire comprising 15 items pertaining to two domains of patient satisfaction. The satisfaction of the patients was evaluated using items from a five-point Likert scale, where higher scores indicated greater satisfaction: 1 (poor), 2 (moderate), 3 (good), 4 (very good), and 5 (outstanding). The cumulative contentment score for each individual item is the overall score. Additionally, the domain scores pertaining to the emergency care center (ECC) staff relationships (nine items) and the precision of information (five items) were computed. Ten items pertained to the relationship with staff and the daily routine domain, while six items pertained to the integrity of medical information. The medical information domain's quality was assessed across six key areas: the clarity of information pertaining to symptoms, investigations' rationales, investigation outcomes, prescribed medications and their side effects, and discharge-delivered safety procedures. Scores in the domain vary between six and thirty points. The relationship with the ECC staff domain comprised nine questions, of which ten were as follows: confidentiality provision, knowledge of the treating physician, department services (including food, dressing, and cleanliness), analgesia administration, nursing staff response, sectional organization, department staff level of comprehension, nursing staff time allocation, medical decision sharing, care, and overall treatment. Nevertheless, a few adjustments were implemented in the present research. The treating physician's knowledge was assessed as a binary response and was not factored into the final score. The degree of involvement in medical decision-making was posed as a dual-part inquiry. Initially, the participants were queried regarding their involvement in the research. Those who answered affirmatively were the only ones queried regarding the degree of their involvement. Thus, one point was awarded to those who abstained from responding to the second query. In this domain, the cumulative score varied between nine and forty-five points.

STATISTICAL ANALYSIS

The mean percentage score for both domains and the aggregate score are utilized to represent the data. The

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statistical analyses were conducted utilizing version 3.6.3 of R. In order to characterize the distribution of categorical variables, counts and percentages were employed, whereas for continuous variables, the mean ± standard deviation was utilized. The correlation between categorical variables was evaluated utilizing Pearson's chi-square test and the chi-square test for linear trends.

In order to examine the relationship between continuous normal outcomes and the sociodemographic characteristics of the patients, an analysis of variance (ANOVA) and Student's t-test were employed. Kruskal-Wallis and Mann-Whitney tests were applied to non-normal variables. The Pearson correlation coefficient was applied to determine the relationships between continuous variables. Utilizing multiple linear regression, the predictors of patient satisfaction scores were determined. The independent variables comprised of emergency department (ED) wait time, gender, age, region, and nationality. The perception of health status relative to individuals of the same age, life satisfaction (as measured by a scale of one to ten), and perceived improvement since admission were additional predictors. The threshold for statistical significance was $P < 0.05$.

RESULTS

The sample comprised 2,997 patient responses, of which 63.3% were female and 36.7% were male. Respondents between the ages of 26 and 35 comprised one-fourth of the sample, whereas those between the ages of 18 and 25 comprised roughly half. Doar 5% of the respondents were aged 55 or older. Forty-three percent of the patients were married, while 54.4% were unmarried.

In relation to geographical location, the proportion of participants hailing from the central region in the sample was 31.7% (or one-third), while the eastern, western, and southern regions each contributed 24.1% (16.9%), 14.6%, and 14.6%, respectively. The duration of stay (LOS) in the emergency department (ED) varied between less than 30 minutes (16.3%) and 6-9 hours (5.34%), with a minority of patients (41.3%) spending 30-120 minutes. LOS in hospitals varied between less than one day (45%) and more than two days (35.2%). A quarter of the participants (24%) expressed the need for admission. A majority of the respondents (38.5%) believed their health status to be superior to that of individuals in their age group, while over 51.9% believed it to be comparable. A mere 9.64% of individuals reported perceiving their health condition as deteriorating. 8.04 ± 2.18 was the mean overall life satisfaction (OLS). (85%) The majority of respondents reported an improvement in health since their admission; 13.2% reported no improvement (Table 1).

TABLE 1: Descriptive statistics for the study sample

	All	N
	N=2,997	
Gender		2,997
Female	1,898 (63.3%)	
Male	1,099 (36.7%)	
Age		2,997
18-25	1,384 (46.2%)	
26-35	623 (20.8%)	
36-45	456 (15.2%)	
46-55	387 (12.9%)	
56-65	121 (4.04%)	
>65	26 (0.87%)	
Nationality		2,997

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Non-Saudi	142 (4.74%)	
Saudi	2,855 (95.3%)	
Region		2,997
Central region	951 (31.7%)	
Eastern region	505 (16.9%)	
Northern region	382 (12.7%)	
Southern region	438 (14.6%)	
Western region	721 (24.1%)	
Length of stay (LOS) in the ED		2,997
<30 minutes	490 (16.3%)	
>9 hours	189 (6.31%)	
2-4 hours	640 (21.4%)	
30-120 minutes	1,238 (41.3%)	
4-6 hours	280 (9.34%)	
6-9 hours	160 (5.34%)	
Hospital LOS		1,134
<1 day	510 (45.0%)	
1-2 days	225 (19.8%)	
>2 days	399 (35.2%)	
Did you require admission?		2,997
No	2,278 (76.0%)	
Yes	719 (24.0%)	
Health state compared with others in the same age group		2,997
1: Worse	289 (9.64%)	
2: No difference	1,554 (51.9%)	
3: Better	1,154 (38.5%)	
Improvement compared with admission		2,997
1: No improvement	395 (13.2%)	
2: Little improvement	1,392 (46.4%)	
3: Improved a lot	1,210 (40.4%)	
Life satisfaction (out of 10)	8.04±2.18	2,997

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ED: emergency department

Regional differences in age, gender, and national origin were found to be substantial, according to the analysis. The proportion of males presenting to the emergency department was greatest in the north and lowest in the south. There was no significant variation in this percentage observed across the three remaining regions. The age of the eastern region respondents was marginally higher in comparison to the remaining regions, whereas the southern region respondents were the youngest. The western region had a higher proportion of non-Saudi respondents (9.57%) compared to the other regions. A discernible pattern of escalating LOS was observed in the ED of the central region. The LOS of hospitals was least in the southern region. There were no statistically significant variations observed in the life satisfaction and perceived health status criteria for admission across the regions. In the same way, there was no statistically significant variation in the perceived enhancement of health in relation to admission across the states (P = 0.161) (Table 2).

TABLE 2: Comparison of sociodemographic characteristics between regions
Statistical analysis was performed using the chi-square test of independence

	Central region	Eastern region	Northern region	Southern region	Western region	P-value
	N=951	N=505	N=382	N=438	N=721	
Gender						<0.001 *
Female	603 (63.4%)	306 (60.6%)	189 (49.5%)	355 (81.1%)	445 (61.7%)	
Male	348 (36.6%)	199 (39.4%)	193 (50.5%)	83 (18.9%)	276 (38.3%)	
Age						<0.001 *
18-25	466 (49.0%)	123 (24.4%)	201 (52.6%)	271 (61.9%)	323 (44.8%)	
26-35	173 (18.2%)	113 (22.4%)	64 (16.8%)	70 (16.0%)	203 (28.2%)	
36-45	122 (12.8%)	138 (27.3%)	60 (15.7%)	41 (9.36%)	95 (13.2%)	
46-55	139 (14.6%)	97 (19.2%)	50 (13.1%)	39 (8.90%)	62 (8.60%)	
56-65	40 (4.21%)	33 (6.53%)	6 (1.57%)	14 (3.20%)	28 (3.88%)	
>65	11 (1.16%)	1 (0.20%)	1 (0.26%)	3 (0.68%)	10 (1.39%)	
Nationality						<0.001 *
Non-Saudi	38 (4.00%)	13 (2.57%)	10 (2.62%)	12 (2.74%)	69 (9.57%)	
Saudi	913	492	372 (97.4%)	426 (97.3%)	652 (90.4%)	

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	(96.0%)	(97.4%)				
Length of stay (LOS) in the ED						<0.001 *
<30 minutes	127 (13.4%)	83 (16.4%)	88 (23.0%)	104 (23.7%)	88 (12.2%)	
>9 hours	76 (7.99%)	25 (4.95%)	19 (4.97%)	25 (5.71%)	44 (6.10%)	
2-4 hours	212 (22.3%)	107 (21.2%)	74 (19.4%)	84 (19.2%)	163 (22.6%)	
30-120 minutes	383 (40.3%)	210 (41.6%)	152 (39.8%)	181 (41.3%)	312 (43.3%)	
4-6 hours	98 (10.3%)	50 (9.90%)	32 (8.38%)	28 (6.39%)	72 (9.99%)	
6-9 hours	55 (5.78%)	30 (5.94%)	17 (4.45%)	16 (3.65%)	42 (5.83%)	
<1 day	155 (43.1%)	71 (39.9%)	60 (42.9%)	95 (55.2%)	129 (45.4%)	
1-2 days	71 (19.7%)	35 (19.7%)	40 (28.6%)	26 (15.1%)	53 (18.7%)	
>2 days	134 (37.2%)	72 (40.4%)	40 (28.6%)	51 (29.7%)	102 (35.9%)	
Did you require admission?						0.748
No	715 (75.2%)	383 (75.8%)	290 (75.9%)	344 (78.5%)	546 (75.7%)	
Yes	236 (24.8%)	122 (24.2%)	92 (24.1%)	94 (21.5%)	175 (24.3%)	
Health state compared with the same age group						0.304
1: Worse	86 (9.04%)	46 (9.11%)	36 (9.42%)	49 (11.2%)	72 (9.99%)	
2: No difference	504 (53.0%)	266 (52.7%)	190 (49.7%)	203 (46.3%)	391 (54.2%)	
3: Better	361 (38.0%)	193 (38.2%)	156 (40.8%)	186 (42.5%)	258 (35.8%)	
Improvement compared with admission						0.161
1: No improvement	122 (12.8%)	72 (14.3%)	49 (12.8%)	69 (15.8%)	83 (11.5%)	
2: Little improvement	416	231 (45.7%)	192 (50.3%)	204 (46.6%)	349 (48.4%)	

	(43.7%)					
3: Improved a lot	413 (43.4%)	202 (40.0%)	141 (36.9%)	165 (37.7%)	289 (40.1%)	
Life satisfaction	8.16 (2.14)	7.95 (2.00)	7.98 (2.52)	7.97 (2.26)	8.02 (2.10)	0.318

*Significant at P < 0.05

ED: emergency department

The findings revealed that an inadequate proportion of the participants (30.5%) were dissatisfied with the level of involvement in decision-making and 31.7% were dissatisfied with the clarity of the adverse effects of medications. The greatest degree of contentment was noted in regards to the outcomes of the inquiries and the intended use of the medications. A quarter of the participants expressed dissatisfaction with the clarity of the discharge safety procedures that must be adhered to (Figure 1).
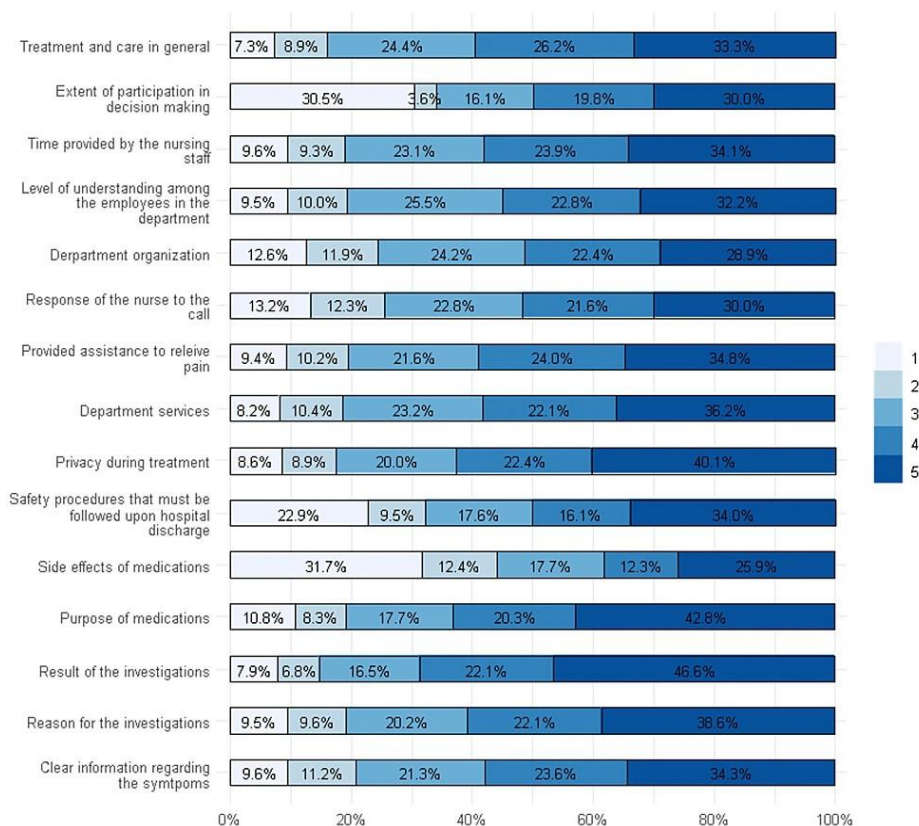

FIGURE 1: Responses to Echelle de Qualité des Soins en Hospitalisation (EQS-H) domains of patient satisfaction to emergencycare

A disparity that was statistically significant was identified among regions with regard to every aspect of satisfaction. The results of the statistical analysis indicated that the central region exhibited a substantially higher average percentage score for information clarity in comparison to the other regions, while the eastern region displayed the lowest score. A comparable trend was noted in the correlation between the staff and the aggregate scores, as shown in Table 3.

TABLE 3: Association between the region and EQS-H score

	Central region	Eastern region	Northern region	Southern region	Western region	P-value
	N=951	N=505	N=382	N=438	N=721	
Clarity of information	77.0 (57.0; 97.0)	67.0 (50.0; 87.0)	73.0 (53.0; 93.0)	73.0 (57.0; 90.0)	73.0 (53.0; 90.0)	<0.001*
Relationship with staff	78.0 (58.0; 96.0)	69.0 (56.0; 87.0)	73.0 (56.0; 91.0)	71.0 (53.8; 87.0)	71.0 (56.0; 89.0)	<0.001*
Overall score	77.0 (59.0; 93.0)	68.0 (55.0; 85.0)	72.0 (56.0; 89.0)	72.0 (55.2; 87.0)	72.0 (55.0; 88.0)	<0.001*

Analysis was performed using the Kruskal-Wallis test. Data are presented as mean percentage score

*Significant at P < 0.05

EQS-H: Echelle de Qualité des Soins en Hospitalisation

The satisfaction levels of respondents between the ages of 26 and 35 were found to be lower in terms of information lucidity (B = -3.62 and P < 0.05), relationship with staff (B = -1.84 and P < 0.1), and overall satisfaction (B = -2.54 and P < 0.05). The level of contentment regarding the clarity of information was notably lower among males compared to females (B = -1.63 and P < 0.05). The level of satisfaction among Saudi citizens was found to be lower in terms of information lucidity (B = -3.07 and P = 0.05), staff relationship (B = -4.35 and P < 0.05), and overall satisfaction (B = -3.81 and P < 0.05). Central region satisfaction was considerably greater than that of the other regions (P 0.05). Extended duration of stay (ED LOS) was found to be correlated with decreased levels of satisfaction regarding information clarity (B = -1.88 and P < 0.001), staff relationships (B = -2.4 and P < 0.001), and overall satisfaction (B = -2.19 and P < 0.001). Greater satisfaction with the clarity of information (B = 4.46 and P = 0.001), the rapport with staff (B = 4.36 and P = 0.001), and overall satisfaction (B = 4.39 and P < 0.001) were all associated with a more favorable perception of one's health status. An increased life satisfaction score was correlated with heightened levels of contentment in both the questionnaire domains and the overall satisfaction score. The most reliable indicator of satisfaction is perceived progress. Patients who did not report any improvement received a lower satisfaction score (16 points) compared to respondents who indicated minimal improvement. A satisfaction score of approximately 30 points was reported by patients who experienced an improvement in comparison to those who did not report any improvement (Table 4).

TABLE 4: Factors associated with overall satisfaction, satisfaction with the clarity of information, and satisfaction with the relationship with staff

	Clarity of information			Relationship with staff			Overall		
Predictors	Estimates	CI	P-value	Estimates	CI	P-value	Estimates	CI	P-value
Age									
18-25	Reference			Reference			Reference		
26-35	-3.62	-5.92 to -0.002		-1.84	-3.96-	0.090	-2.54	-4.59 to -0.015*	

		1.33			0.28			0.50	
36-45	-1.80	-4.78-1.18	0.237	-0.43	-3.19-2.32	0.759	-0.99	-3.65-1.66	0.464
46-55	-2.29	-5.53-0.96	0.167	-0.83	-3.83-2.17	0.589	-1.39	-4.28-1.50	0.345
56-65	-2.74	-7.30-1.83	0.240	-0.92	-5.15-3.30	0.669	-1.68	-5.75-2.38	0.417
>65	-2.95	-11.12-5.22	0.479	0.09	-7.47-7.64	0.982	-1.15	-8.43-6.13	0.757
Gender: male versus female	-1.63	-3.18 to -0.07	0.041	-0.86	-2.30-0.59	0.245	-1.16	-2.55-0.23	0.102
Region									
Central region									
Eastern region	-4.59	-6.77 to -2.42	<0.001	-4.34	-6.36 to -2.33	<0.001	-4.44	-6.38 to -2.50	<0.001*
Northern region	-2.79	-5.13 to -0.45	0.020	-3.00	-5.17 to -0.83	0.007	-2.90	-4.99 to -0.81	0.007*
Southern region	-2.64	-4.89 to -0.39	0.021	-4.85	-6.93 to -2.77	<0.001	-3.96	-5.96 to -1.95	<0.001*
Western region	-3.08	-4.99 to -1.17	0.002	-4.18	-5.95 to -2.41	<0.001	-3.73	-5.44 to -2.03	<0.001*
Hospital LOS	-1.88	-2.42 to -1.34	<0.001	-2.40	-2.89 to -1.90	<0.001	-2.19	-2.67 to -1.71	<0.001*
Perceived health state									
Worse	Reference			Reference			Reference		
No difference	0.13	-2.37-2.63	0.918	1.58	-0.73-3.90	0.179	1.00	-1.23-3.23	0.380
Better	4.46	1.75-7.17	0.001	4.36	1.86-6.87	0.001	4.39	1.98-6.81	<0.001*
Life satisfaction	1.63	1.29-1.97	<0.001	1.71	1.39-2.02	<0.001	1.68	1.38-1.98	<0.001*
Improvement compared with admission									
No improvement	Reference			Reference			Reference		

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Little improvement	17.83	15.64-20.03	<0.001	16.22	14.19-18.25	<0.001	16.83	14.88-18.79	<0.001*
Improved a lot	30.87	28.56-33.19	<0.001	31.07	28.93-33.22	<0.001	30.96	28.89-33.03	<0.001*
Observations	2,997			2,997			2,997		
R^2/R^2 adjusted	0.318/0.312			0.367/0.361			0.378/0.372		

Length of stay in the emergency department (ED) was included as a continuous variable to assess the association between the increase in this variable and satisfaction

*Significant at $P < 0.05$

CI: confidence interval; LOS: length of stay

DISCUSSION

The emergency department serves as the initial point of contact for numerous patients in need of acute health services. Utilizing the Arabic variant of the EQS-H, this was the first study of its kind to be conducted among patients in various regions of Saudi Arabia in order to determine patient satisfaction with emergency healthcare services. The EQS-H questionnaire was among a number of surveys that were created and verified across numerous nations with the purpose of assessing patient satisfaction [5,6]. The reliability of the EQS-H questionnaire was found to be satisfactory in this study. Prior research has examined patient satisfaction in Western nations [7,8]. However, patient satisfaction in Arab countries, where sociocultural values vary, is poorly understood [9]. The present study found that the average total satisfaction score among patients from various regions in Saudi Arabia was 72.2. The mean scores for relationship with staff and lucidity of information were 72.6 and 72.4, respectively, which indicate a moderate level of satisfaction. In terms of satisfaction levels, regions of Saudi Arabia differed significantly; those in the eastern region (505) reported the lowest level of satisfaction, whereas participants in the central region (951) reported the highest level of satisfaction. The remaining regions produced comparable results.

Abolfotouh et al. [4] found that the mean overall satisfaction of patients admitted to the emergency department at King Abdulaziz Medical City in Riyadh, Saudi Arabia, was 70.36 (SD = 17.4). In the clarity of information domain, the satisfaction was 67.49 (SD = 21.49), and in the relationship with staff domain, it was 71.79 (SD = 18.4). Banjar and Nafisah (2010) documented reduced scores of 40 and 39.9, respectively, in the lucidity of information and relation with staff domains of their recent study [10]. A notable variation was observed across regions, as

indicated by the study's findings: the southern province exhibited the highest level of satisfaction, with the northern, eastern, central, and western provinces following suit [10]. A separate investigation conducted in the western region of Saudi Arabia revealed that of the patients surveyed, 33.14% expressed moderate satisfaction, 17.93% were dissatisfied, and 48.93% were extremely satisfied with the clarity of the information. Furthermore, this research revealed that 36.65% of respondents were moderately satisfied with their relationship with staff, while 38.4% were extremely satisfied [11].

Consistent with findings from prior research [9,12], our results revealed a highly significant correlation between patients' satisfaction levels and their perception of health status improvement. Patients' perceptions of their health status improving serve as an indicator of the alleviation of symptoms associated with their medical conditions, which would logically correlate with increased levels of satisfaction [12]. In order to obtain precise interpretations of comparative satisfaction data, it is crucial to take into account the patient profiles pertaining to their conditions [13]. The researchers documented a favorable correlation between physician empathy and patient satisfaction and adherence, in addition to the beneficial effects of heightened adherence on patient health, in a study conducted in Korea [14]. Patient satisfaction was found to be substantially correlated with favorable patient health outcomes and effective patient-physician communication, according to a prior investigation [15]. An additional investigation carried out in Italy explored the correlation between patient satisfaction and disease complications among diabetic patients. The results of this study indicated a significant relationship between physician empathy and clinical outcomes that were directly related to patient satisfaction [16]. A recent study involving 235

patients admitted to the medical ward of an educational tertiary healthcare center in Jeddah, Saudi Arabia, yielded similar results [17]. The study discovered a significant correlation between patients' satisfaction and their perception of an improvement in their health status. The primary reasons cited by participants in this research were abdominal pain during pregnancy (10.0%), shortness of breath (SOB) (17.8%), sprain/fracture (11.9%), trauma/wound (9.4%), and inflammation (8.65%). In another study, vertigo, abdominal pain, shortness of breath, and vaginal bleeding were cited as the reasons for visits to the ED [4].

In satisfaction studies, self-perceived health status is typically disregarded, especially when comparing distinct patient groups [5]. The present investigation found a significant correlation between satisfaction scores and perceived health status; individuals who reported an improvement in their health exhibited a greater degree of satisfaction compared to those who reported no change or a deterioration in their health condition. A high level of general life satisfaction is associated with a positive outlook on care satisfaction, according to a previous study [9]. Conversely, an alternative investigation revealed that individuals who possess greater levels of life satisfaction also exhibit greater expectations of healthcare services [4] than those who have lower levels of life satisfaction and are associated with lower levels of healthcare services satisfaction. Additionally, in both domains, female patients achieved higher satisfaction scores than their male counterparts, according to the findings of the present study. This finding is consistent with those of previous research [4,18]. It is possible that males have higher expectations than females, as suggested by these findings. Conversely, males exhibit greater satisfaction in both domains compared to females, according to other studies [5,9,12,19]. Furthermore, our findings indicated that participants between the ages of 26 and 35 exhibited diminished levels of contentment with the following aspects: information lucidity (B = -3.62 and P < 0.05), staff relationship (B = -1.84 and P < 0.1), and overall satisfaction (B = -2.54 and P < 0.05). Age is a significant determinant of satisfaction levels, according to a number of prior studies [10,11,20-22], in which older participants reported reduced levels of satisfaction.

The present study revealed that participants' dissatisfaction was most notably influenced by the clarity of safety procedures that must be adhered to post-discharge, the extent of involvement in decision-making processes, and the disclosure of medication side effects. Conversely, the results of investigations and the intended purpose of medications elicited the highest levels of participant satisfaction. A recent study yielded comparable findings, indicating that dissatisfaction with the clarity of potential adverse effects of medications and symptoms that necessitate future monitoring was correlated with lower levels of satisfaction [11]. Additionally, 20.1% of patients surveyed in a separate study by Owaidh et al. [23] expressed dissatisfaction with the clarity of potential adverse effects linked to medications. Prior research has also indicated that the level of patient satisfaction with the emergency department is influenced by factors such as information dissemination, staff-patient interactions, and wait times [18,24,25]. Moreover, in two prior investigations, dissatisfaction with the clarity of information was evident, specifically with regard to adverse effects, symptoms, medication purposes, and the rationale behind investigation results [4,9].

CONCLUSIONS
A moderate level of satisfaction was reported by patients admitted to emergency departments (EDs) in various regions of Saudi Arabia regarding both the lucidity of information and the relationship with staff. Notably, the results were more favorable in the central region. Additionally, we noted that the patients frequently cited the following as contributing factors to their dissatisfaction: inadequate communication regarding medication adverse effects, limited involvement in decision-making processes, and unclear safety protocols that necessitate adherence after discharge. This research demonstrated that enhancing the level of communication between hospital personnel and patients would resulted in a notable improvement in both patient satisfaction and outcomes. To enhance patient satisfaction in the emergency department, it is critical to develop a greater comprehension and awareness of these factors. Additionally, we suggest implementing programs that enhance the communication abilities of medical professionals. Conversely, it is critical to enhance consumer health education in order to foster a more comprehensive comprehension of healthcare services. Further research is advised to investigate the level of contentment that physicians have with hospital facilities.

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