



PATIENT SATISFACTION STUDY IN OUTPATIENT SETTING IN TERTIARY ACADEMIC HOSPITAL PATIENT SATISFACTION IN OUTPATIENT CLINICS

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Abstract:

Purpose: To analyze and assess of satisfaction to the quality and performance of services provided in the outpatients Clinics of Tertiary Academic Care Hospital, and explore what is the factors affecting on it.

Methods: In a cross-sectional study at university hospitals in the Qassim region of Saudi Arabia, 476 outpatient online surveys were completed. The main content of the study was the basic characteristics of the patients. Statistical description, to identify influencing factors, chi-square analysis was utilized.

Results: The survey found that total outpatient satisfaction was 76.69 ± 25.17 , and the higher satisfaction factor scores were hospital facilities, Attitude and corporation of pharmacy staffs, language and communication of the physician, and registration process. The factors with lower scores were ease of finding OPD clinic, ease to find outpatients location, availability of prescribed medication.

Conclusion: For the continuation of the outpatient service process, patients with various educational levels, marital status, and first-time hospital visitors may receive special attention when receiving outpatient care.

Keywords: Patient satisfaction, Communication, quality of care, Outpatient, Waiting Time

Introduction:

Patient satisfaction increased and gained more importance as well as a source of information to identify and analyze the gap side by side to build a practice quality improvement project [1]. On the other hand, for tertiary hospitals, patient satisfaction considers an essential outcome of healthcare services [2].

In some healthcare organizations, patient satisfaction considers a decisive phenomenon to highlight the patients' needs [3], in the past three decades; in the Kingdom of Saudi Arabia (KSA), access to healthcare facilities improved vividly [4]

Patient satisfaction reflects the degree to of patients gain benefits and meet expectations and comfort in the hospital [5]. Newly in the USA, hospitals have begun to publish their patient's satisfaction online to give the patient's the advantage of choosing the best healthcare facility and led to a decrease in the between gap patients and healthcare providers as well as helps patients make informed decisions in addition to giving a chance for the hospitals to increasing patient experience with physicians and nurses [6,7]. Al-Harajin, et al. from KSA highlighted the most critical factors affecting the satisfaction rate in the tertiary hospital in Saudi Arabia, which are Gender and clinic type [8].

In Riyadh, A. Alodan, G. Alalshaikh, and H. Alqasabi et al. on 2020 focused on the waiting time in the pharmacy, which plays a big role in patient satisfaction at prince sultan university medical city [9].

Chinese's people like to visit tertiary hospitals because of the quality of care provided and the availability of medical resources, even for inpatients and outpatients clinics [10].

In Turkey as well patient satisfaction is pilar of the quality of care provided to the patient; according to Vural et al., in 2014 as shed light on communication skills for all healthcare professionals to improve patient satisfaction[11].

Finally, at ad distance less than 1500 kilometers from Qassim region, specifically in the Hashemite Kingdom of Jordan, our colleagues there studied patient satisfaction also, and they found that the waiting time along with the proper communication and level of cleaning was the kyes to a high level of patient satisfaction among Jordanian people [12].

In our study, we sought to identify and explore the level of patient satisfaction in the Qassim region in the newly operated outpatient clinics at a tertiary academic hospital.

Methodology:

Sampling Design

This cross-sectional study was implemented at a tertiary academic university hospital, and the Eligible respondents were an adult male and a female patient who visited the outpatient clinics. Who will ask to recall their most recent personal outpatient clinic health care experience during the visit, even positively or negatively. All pediatrics were excluded. According to the eligibility criteria, this survey will be offered to all outpatient clinic visitors.

We used the SurveyMonkey calculator to estimate the sample size based on the 5000-outpatient clinic with a Confidence Level (95%) and Margin of Error (5%); we need 357 cases.

<https://www.surveymonkey.com/mp/sample-size-calculator/>

The questionnaire was available in two languages, Arabic and English, and was online using a Quick Response code (QR) form; All the questionnaires were anonymous without using any identifiers.

Because this survey was initiated by the study team, the first 50 cases were used as a pilot study and analyzed to test the content and using the SPSS V28© (IBM Corp., Armonk, NY, USA) to test the validity of the questions themselves.

All data were entered and analyzed using SPSS V28© (IBM Corp., Armonk, NY, USA). Categorical variables are expressed as frequencies and percentages, while continuous variables have presented as means \pm standard deviations (SDs). The chi-squared test is used to evaluate demographic and health-related characteristics as well as the type of service provided to the patient. A p-value of less than 0.05 was considered to be statistically significant.

On the first page of the questionnaire (Cover Page), full detail about the study were provided, and participation was voluntary for all patients. In the coversheet also, the contact details for the corresponding author are provided.

Questionnaire Design

The questionnaire includes two parts. The first part is the Socio-Demographic Characteristic of patients, including "gender," "age" (18-30, 31-40, 41-50, 51-60, >60), "marital status," "educational degree" (primary, secondary, bachelor (BSc.), master (MSc.), Doctorate (Ph.D.)), "employment type" (student, private sector employee, government staff, self-employed, unemployed), "number of visits" (first visit, 2-4, more than four times). The second part is the Satisfaction score includes three dimensions: experience with health care services, waiting time, and attitudes towards patients. The experience with health care services dimension consisted of nine factors: "Easy to find the outpatient location," "cleanliness of OPD clinics," "The doctors inform you of the treatment process," "Doctors understand your health condition," "You had the chance to discuss health problems with physicians," "Nurses welcomed you with respect," "Nurses answer to your questions gently," "Pharmacy Staffs explained how to use drugs," "availability of medicines." The Wait time dimension included three factors: "waiting time for receiving services," waiting time in the registration process," and "registration staff informed you where OPD is." The Attitudes Towards Patients had eight factors: "Ease of registering process," "Ease of finding Medicine OPD," "Hospital facilities," "appropriate waiting time," "receptionist attitude," "doctors Language and communication skills," "friendly manners of nurses," pharmacy staff's attitude". The satisfaction questions used Likert's five-point Scale. Distributed 100 points for Excellent, 80 points for Good, 60 points for Average, 40 points for Poor, and 20 points for very Poor, the overall satisfaction of outpatients is the mean score from all dimensions.

For the second part of the questionnaire, Cronbach's α coefficient has been used to assess the reliability and consistency of the questionnaire.

Results:

Questionnaire Test

The Cronbach's α coefficient was 0.908, which indicates that the questionnaire had a high internal consistency and reliability.

Outpatient Satisfaction Score Status

The highest scored dimensional satisfaction is the service Attitudes Towards Patients dimension (82.88), and the lowest score is the Accessibility to Services and Waiting Time dimension (70.35). The factor with the highest score on the experience with health care services dimension is the pharmacy Staff explained how to use drugs (83.95), and the factor with the lowest score is the Availability of Prescribed Medications (62.48). The factor with the highest score on Attitudes Towards Patients is hospital facilities (98.15), and the factor with the lowest score is the ease of finding medicine OPD (49.41). The factor with the highest score in the Accessibility to Services and Waiting Time dimension is the waiting time for receiving services is appropriate (laboratory, X-rays, medications, etc.) (74.42), and the lowest score is registration staffs informed you where OPD is (62.31) as per Table 1

Table 1: Dimensions and Overall Outpatients Satisfaction Score

	Criteria	Factor	Dimension Mean \pm SD	Overall
Experience with health care services	9	Easy to find OPD location	64.66 \pm 29.03	76.95\pm22.14
		The outpatient clinics are clean and tidy	82.31 \pm 18.86	
		The doctors inform you of the treatment process	81.55 \pm 19.33	
		Doctors understand your health condition	80.79 \pm 19.98	
		You had chance to discuss health problems with physicians	80.42 \pm 19.93	
		Nurses welcomed you with respect	78.49 \pm 21.62	
		Nurses answer to your questions gently	77.92 \pm 22.15	
		Pharmacy Staffs explained how to use drugs	83.95 \pm 16.95	
		Availability of Prescribed Medications	62.48 \pm 31.41	
	3	Registration staffs informed you where OPD is	62.31 \pm 27.96	70.35\pm25.73

Accessibility to Services and Waiting Time		Waiting time in Registration process is appropriate	74.31±23.90	
		Waiting time for receiving Services is appropriate(Lab .X-rays, Medications..)	74.42±25.13	
Attitudes Towards Patients	8	Ease of registering process	89.08±27.5	82.77±27.63
		Ease of finding Medicine OPD	49.41±38.6	
		Hospital facilities (bed. chair. restroom etc.)	98.15±12.03	
		The attitude and Respect of receptionist	70.92±38.52	
		Language and communication skills used by physicians	92.61±23.19	
		Friendly manners and attentiveness of nurses	82.69±32.97	
		Attitude and corporation of pharmacy staffs	97.31±14.43	
Overall satisfaction		appropriate waiting time	82.02±33.43	76.69±25.17

Statistical Description

A total of 476 patients were recruited for the study, with a response rate of 95.2%. The majority of the participants were Male, representing more than half of the participants, 280(58.8%), and the rest of the participants were Female, 196 (41.2%). The youth group (between 18 and 40 years) represented the majority of the sample, 281(59%), and middle age (between 41-60 years) represented one-third of the sample with 172(36.13%), while the older group from 60 years and above was the lowest number and represented 23 (4.8%) participants. The highest number of the participants were married, 261(54.8%) then the second group was single, which 200 (42.0%) of the population. On the other hand, the widowed and divorced were the lowest number of participants, 9(1.9%) and 6(1.3%), respectively. Most participants were Governmental workers then who had businesses; after that came the students and Private Sector Employees. finally, the unemployed lowest in the cohorts 145(30.5%), 106(22.3%), 82(17.2%), 82(17.2%) and then 61(12.8%) respectively. However, the first visit to the clinic was from a first-time visitor and reflected 193(40.5%), then 2-4 times and more than four visits 150(31.5%) and 133(27.9%) respectively as shown in table 2

Table 2: Descriptive analysis

Socio-Demographic Characteristic	Participant N (%)
Gender	
Male	280(58.8%)
Female	196(41.2%)
Age	
18-30	110(23.1%)
31-40	171(35.9%)
41-50	123(25.8%)
51-60	49(10.3%)
More Than 60 Years	23(4.8%)
Marital status	
Single	200(42.0%)
Married	261(54.8%)
Divorced	6(1.3%)
Widow	9(1.9%)
Educational level	
Primary	3(0.6%)
Secondary	82(17.2%)
Bachelors (BSc)	245(51.5%)
Master (MSc)	92(19.3%)
Doctorate (Ph.D.)	54(11.3%)
Nature of work	
Student	82(17.2%)
private sector employee	82(17.2%)
Government staff	145(30.5%)
Self-Employed	106(22.3%)

Unemployed	61(12.8%)
How often do you visit the outpatient department?	
First Visit	193(40.5%)
2-4 Times	150(31.5%)
More than 4 Times	133(27.9%)

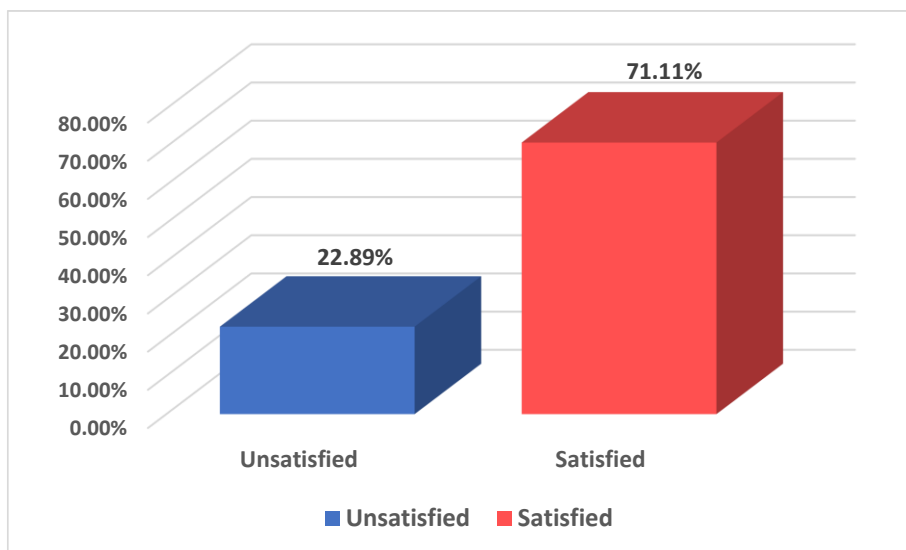


Figure1: The Satisfaction Rate of Overall Dimensions

Fig. 1 reveals that the overall satisfaction rate for all aspects of the study was good, as it was 71.11% satisfied while it was 22.89% unsatisfactory.

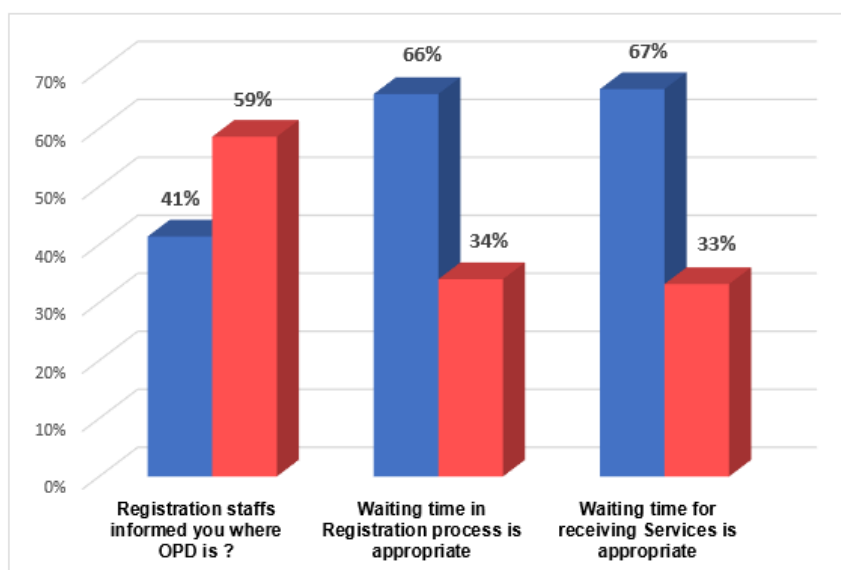


Figure 2: Satisfaction of respondents regarding Experience with Health Care Services

Regarding the experience with health care services as shown in **Fig. 2**, the maximum number of patients were satisfied, 83.10% regarding pharmacy staff explained how to use drugs, and 16.80 were unsatisfied.

Regarding the availability of prescribed medications, 51.7% of the patients were found satisfied, and 16% were not.

Patients' compliance with clinical care indicates how satisfied they are with the services provided by the doctor and nurse; by the side of the physicians, patients' satisfaction was, i.e., 74.3 % of the doctors understand their health conditions, an opportunity given to talk about their illness and listening skills

of the doctor 73.4%, for as many as 76% of the patients replied that the doctors informed about their treatment process and the remaining 24% showed their dissatisfaction.

From the nursing side, the patient's care experience reflects how the communication with the nurses reflects their satisfaction that the results were satisfactory in terms of welcome and respect from the nurse 69.9%, and answer to their questions gently 68.7%.

Through this figure, it was found that the cleanliness of the OPDs plays a major role in the success of the patient's experience and satisfaction with the level of services provided 77.5%.

As the table showed that there is a significant defect in access to outpatient clinics, where the results show that 54.6% were unsatisfied, and 45.4% only showed their satisfaction.

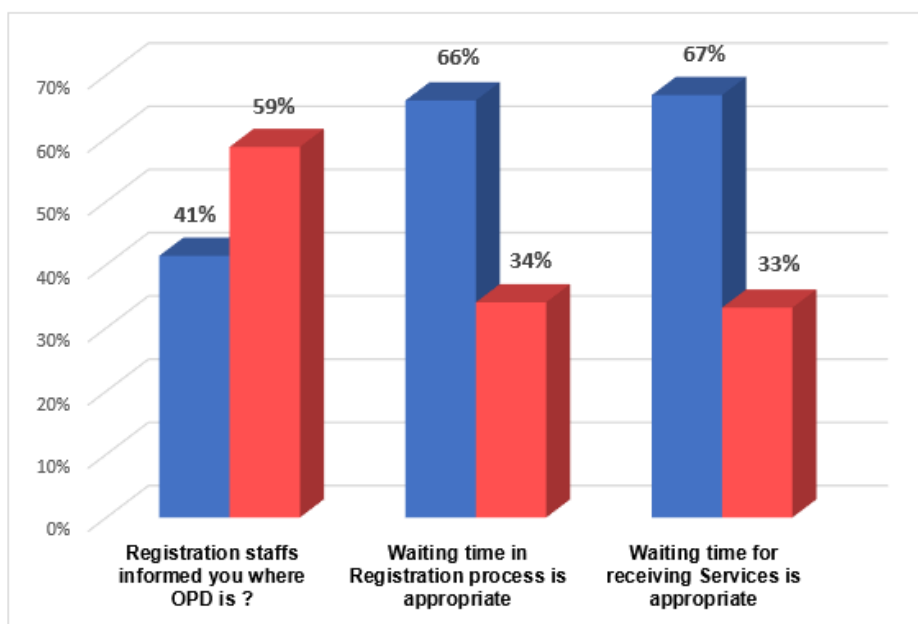


Figure 3: Satisfaction of respondents regarding Accessibility to Services and Waiting Time

Fig 3 depicts that 67 % of the respondents were satisfied with the Waiting time for receiving Services, while the remaining 33% were dissatisfied, and 66% of patients saw that the Waiting time in the Registration process is appropriate, 58.6% showed dissatisfaction with not telling registration staff where their clinics.

Experience with Health Care Services

In our study, when we used the univariate analysis, there is no difference between males and females in the of satisfaction 199(71.07%) and 196(66.83%) p-value 0.549, as well as the age of participants not affecting the satisfaction among all age categories (18-30 years), (31-40 years), (42-50 years), (51-60 years) and (>60 years) 70(63.63%), 114(66.66%), 93(75.60%), 36(73.46%) and 17(73.9%) with P value 0.498, even the marital status not effect for singles, marrieds, divorced and widowed 134(67%), 188(72.03%), 3(50.00%), and 5(55.55%), P value 0.194. But employment status statistically showed a significant effect plays on patient satisfaction as the Governmental employee more satisfied 113(77.93%) than the private sector 62(75.60%) and the students 58(70.70%), while those who had their own business from the lowest satisfaction in cohort 61(57.54%) than those not working at all 36(59.01%) with *P value* 0.033. the other factor that plays a role in the satisfaction results is the number of visits to the Outpatient clinics; for those who visited the clinic more than four times, the highest satisfaction was 115(86.46%) then those who visited the clinic from 2-4 times 110(73.3%) then lowest satisfaction was from the first-time visitors 105(54.40%) as shown in Table 3

Accessibility to Services and Waiting Time

Our data in Table 3 showed that the participants in the age group (41-50 years) are better satisfaction in regards to Accessibility to Services and Waiting Time than the age group 74(60.16%) P value of 0.047, as well as the Master holder is the higher satisfaction than other 57(62.0%) P value 0.002, and the workers in the private sector were more satisfied 53(64.63%). And the patient who visited the clinics more than four times were satisfied more than 88(66.16%) as showed in Table 3

Attitude Towards Patients

In the data analyzed, no significant result in the field of the attitude towards the patients except for the Patients who visited the clinics more than four times as they were significantly higher satisfaction levels 119(89.47%) as showed in Table 3

Discussion:

Experience with Health Care Services

Our study offered interesting data and results out of the ordinary in terms of results and statistical impact, whereas the traditional factors did not have a statistical impact on the results. Still, on the other hand, we had factors that had a clear statistical impact, which could shed light on new quality management projects to improve performance and raise the level of patient satisfaction like the employment status and the number of visits to the Outpatient clinics. So, our data came with the same results came from Nepal, 2020 which reported that the follow-up cases were higher satisfied than the new cases that came to the hospital [13], as well as with a new encounter case to the outpatient clinics due to the better understanding for the clinic's process and the patient feeling more familiar with the facility and building a healthy relationship with the healthcare team (physicians and nurses) [14].

However, in occupation/ employment regards, we didn't find any article discussing this factor, and we sought that our study is the first article to highlight this factor as the Governmental employee more satisfied than 113(77.93%).

Accessibility to Services and Waiting Time

The Saudi study, which came from Al Ahsa by Al-Harajin, et al. in 2019 was supported our data as the follow-up cases were more satisfied than the new cases visited the hospital 198 (52.9%, *P value* <0.001) [8]. Another data from the UK, London, supports our data which showed that all participants reported that they were not satisfied during the first visit to the clinic with a satisfaction rate (of 28%) while the satisfaction rate improved with the next visits (43%)[15]. In our data and in the literature, the first visit negatively impacted all patient satisfaction [16].

Attitude Towards Patients

The attitudes expressed by the healthcare provider towards the patients affect patient satisfaction significantly as our study and other studies, like the Chinese study in 2016 by Li et al., as he discussed this issue about the bad attitudes from different healthcare providers highly impacting the overall patients' satisfaction. [17]

Conclusion:

In terms of affecting factors, Availability of prescribed Medication, Ease of finding OPD locations, ease of finding the OPD clinics connecting with Registration Staff informed you where OPD is, and other staff's attitudes had the lowest satisfaction score, and as we found out, from research Accessibility to Services and Waiting Time dimension has a lower score in the dimensional criteria. The hospital must take quick steps and pay attention to promote outpatient satisfaction. Attention could be paid to these factors in two aspects to enhance outpatient satisfaction: for patients with different educational levels and marital statuses and those who visit the hospital for the first time. Developing a strict plan to solve the problem of accessing outpatient clinics will contribute to the improvement of satisfaction. For hospitals, the need for medication must be secured and provided, and staff training improvement needs for effective quality of communication and establishing plans

for waiting time optimization. Future research could examine Services performance relative to the waiting time of the appointment and further investigate the relationship between patient experience and service performance.

Ethics approval and consent to participate:

All authors completed the Bioethics certificate from The National Committee of Bioethics at King Abdulaziz City for Science and Technology, and ethical approval for this study was obtained from the committees of research ethics, Deanship of Scientific Research at Qassim University (Reference No.: 22-08-01).

Consent for publication:

Not applicable, as in the first page of the questionnaire (Cover Page), full detail about the study were provided, and participation was voluntary for all patients. In the coversheet also, the contact details for the corresponding author are provided.

Availability of supporting data:

The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests

All authors are employees of Qassim University Medical City at the time of the study. All authors Declare no conflict of interest.

Funding

All authors declare that no funds, grants, or other support were received during the preparation of this manuscript.

Contributions:

All authors take responsibility for the integrity of the work as a whole, contributed to the writing and reviewing of the manuscript, and have given final approval for the version to be published. MA contributed to the conception or design of the study. HN also contributed to data acquisition and NA contributed to data analysis and interpretation. All authors had full access to the data in this study and take complete responsibility for the integrity of the data and accuracy of the data analysis. All authors read and approved the final manuscript.

Acknowledgements:

Not applicable

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