

# Patient Satisfaction with Primary Health Care Services in Riyadh City, Saudi Arabia

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## Abstract

Patient satisfaction is a crucial measure of healthcare quality and plays a vital role in ensuring effective healthcare systems. This study aims to assess the level of patient satisfaction with primary healthcare services in Riyadh, Saudi Arabia, identify social factors affecting satisfaction, and determine the reasons behind dissatisfaction and how to improve satisfaction. The study employed a cross-sectional observational design and included a random sample of 400 patients from primary healthcare centers in Riyadh. Data were collected using an electronic questionnaire and analyzed using SPSS software. The study found that patients were generally satisfied with the primary healthcare services provided in Riyadh, with high levels of satisfaction reported for booking appointments, triage services, and emergency care. However, some aspects of the healthcare experience, such as long waiting times and the physical design of healthcare centers, need improvement. These findings can be used to inform the development of policies and interventions aimed at enhancing healthcare quality in Saudi Arabia.

## Keywords

Patient Satisfaction, Primary Healthcare Services, PHC, Healthcare Quality

## 1. Introduction

Primary health care (PHC) is a fundamental part of the healthcare system that aims to provide accessible and affordable healthcare to all individuals and families in a community. PHC is a comprehensive approach that deals with a wide range of health issues, including prevention, diagnosis, treatment, and rehabilitation. It emphasizes holistic care, health promotion, and disease prevention, with a focus on the community's unique needs [1]. The goal of PHC is to ensure that all individuals have access to quality healthcare services that meet their

healthcare needs.

The concept of PHC was first introduced by the World Health Organization (WHO) in 1978 as part of the Alma-Ata Declaration. The declaration aimed to achieve “health for all” by the year 2000. The Alma-Ata Declaration recognized the importance of PHC in achieving this goal and called for the development of PHC services worldwide [2]. Since then, many countries have implemented PHC as a critical component of their healthcare systems.

PHC services are provided by a team of healthcare professionals, including physicians, nurses, midwives, and other health professionals. The team works together to provide patients with a comprehensive range of healthcare services that address their physical, mental, and social needs [3]. The focus of PHC is on the prevention of disease and the promotion of health, with an emphasis on health education, counseling, and community involvement.

Patients’ satisfaction is an essential component of measuring the quality of healthcare delivery. Patient satisfaction is defined as the degree to which patients’ expectations of healthcare services are met [4] [5] [6]. Patients are the best judges of the quality of healthcare services provided since they have firsthand experience of the care received. Their feedback is crucial in identifying weaknesses in the system and improving the overall quality of healthcare provision [7].

Satisfied patients are more likely to develop a good relationship with the healthcare system, leading to improved compliance, continuity of care, and better health outcomes. Patient satisfaction is also an essential factor in healthcare provider selection and patient retention. Satisfied patients are more likely to recommend a healthcare provider to others and continue using their services [8] [9].

PHC services encompass a wide range of healthcare services, including medical diagnostic and laboratory services, referral services for other specialties, dental care, maternal and child care, including family planning and immunization against major infectious diseases, urgent care services, mental health care, nutritional support, smoking cessation services, and preventive services, including screening. These services are provided in PHC centers, which serve as the first point of contact for patients seeking healthcare services [10].

PHC is an essential component of the healthcare system that aims to provide accessible and affordable healthcare to all individuals and families in a community. The focus of PHC is on the prevention of disease and the promotion of health, with an emphasis on health education, counseling, and community involvement. Patient satisfaction is a crucial component in measuring the quality of healthcare delivery.

The current study aims to determine the level of patient satisfaction with PHC services provided in Riyadh, Saudi Arabia, and identify areas for improvement to enhance the quality of healthcare services provided in the community. Riyadh is the capital city of Saudi Arabia and has a population of over seven million. The study aims to determine the relationship between the level of patient satis-

faction and the socio-demographic characteristics of the respondents. Additionally, the study aims to identify the reasons behind satisfaction or dissatisfaction and patients' opinions on how to improve satisfaction with the services provided.

The study is significant since it provides insight into the quality of PHC services provided in Riyadh. The findings of the study can be used to identify areas for improvement and enhance the quality of PHC services provided in the community. Improving the quality of PHC services can help achieve the goal of providing accessible and affordable healthcare to all individuals and families in the community.

## 2. Methodology

This study employs a cross-sectional observational design to measure patient satisfaction with primary healthcare services in Riyadh. The study includes all patients attending primary healthcare centers in the city, with a random sample of 400 patients selected from each center.

A questionnaire was developed to collect data from the participants. The first section of the questionnaire collects socio-demographic data, including age, gender, level of education, marital status, and family income. The second part of the questionnaire assesses patient satisfaction with various aspects of healthcare services, including accessibility and triage services, emergency services, screening tools, vaccinations, electronic services (such as Elm and Wasfaty), interpersonal relationships with physicians and nurses, active listening to patient complaints and problem-solving, and suggestions for improving primary healthcare services.

Data collected were analyzed using the Statistical Package for Social Studies (SPSS 22; IBM Corp., New York, NY, USA). Categorical variables were expressed as percentages, and the chi-square test was used for categorical variables. The Shapiro-Wilk test was used to assess the normality distribution for the variables, and a p-value of less than 0.05 was considered statistically significant.

The study aims to identify areas of patient satisfaction with primary healthcare services in Riyadh and to determine the relationship between patient satisfaction and socio-demographic characteristics. The findings of the study will help identify areas for improvement and develop policies and interventions aimed at enhancing the quality of primary healthcare services in Riyadh.

## 3. Results

The study included a sample of 400 participants, with 61% being female and the largest age group being 18 - 30 years old (28.75%). Approximately half of the participants were married (48%), and the majority had completed university education or above (55.5%). The average income for most participants was between 5000 - 10,000 Saudi Riyals (40%). **Table 1** provided detailed characteristics of the participants.

**Table 1.** Characteristics of the participants.

		Number	Percentage
<b>Gender</b>	Male	156	39.00
	Female	244	61.00
<b>Age</b>	18 - 30 y	115	28.75
	31 - 40 y	91	22.75
	41 - 50 y	111	27.75
	51 - 60 y	69	17.25
	>60 y	14	3.50
<b>Educational level</b>	Illetrate	6	1.50
	Primary	20	5.00
	Intermediate	51	12.75
	High school	99	24.75
	Diploma	2	0.50
	University and above	222	55.50
<b>Marital status</b>	Single	146	36.50
	Married	192	48.00
	Widow	61	15.25
	Separate	1	0.25
<b>Income</b>	<5000 SR	133	34.10
	5000 - 10,000 SR	156	40.00
	>10,000 SR	101	25.90

Regarding patient satisfaction with primary health care services in Riyadh city, the majority of participants (62.75%) did not face any difficulties in booking appointments through appointment applications, while 42.75% were satisfied with the triage services provided by primary health care centers. However, a significant proportion of patients agreed or strongly agreed that the waiting time is too long (29% and 14.75%, respectively). About 36% of participants were satisfied with health services provided in emergency cases, while the majority agreed or strongly agreed that they were given enough time to clarify their complaints (46% and 23%, respectively). On the other hand, 42.25% were satisfied with their experience during the consultation time in terms of explaining the medical diagnosis and treatment methods. Approximately half of participants (56.22%) were satisfied with the level of disease prevention provided by PHC, such as vaccinations and early detection examinations for chronic and psychological diseases, in addition to some types of cancers for all family members. **Table 2** presented the detailed results of patient satisfaction with primary health care services.

**Table 2.** Assessing the patient satisfaction with primary health care services.

		No.	%
Did you face any problem while booking an appointment through the Appointment application?	Yes	149	37.25
	No	251	62.75
How would you describe your experience during the triage stage in terms of taking vital signs and directing the patient to the appropriate clinic?	Very satisfied	77	19.25
	Satisfied	171	42.75
	Neutral	81	20.25
	unsatisfied	57	14.25
Do you think the waiting time is too long?	Very unsatisfied	14	3.50
	Strongly agree	59	14.75
	Agree	116	29.00
	Neutral	110	27.50
Do you think that emergency cases are dealt with appropriately in the health center?	Disagree	94	23.50
	Strongly disagree	21	5.25
	Strongly agree	67	16.75
	Agree	147	36.75
Do you think that the attending physician gave you enough time to clarify the complaint?	Neutral	113	28.25
	Disagree	59	14.75
	Strongly disagree	14	3.50
	Strongly agree	92	23.00
Do you think that the attending physician gave you enough time to clarify the complaint?	Agree	184	46.00
	Neutral	62	15.50
	Disagree	50	12.50
	Strongly disagree	12	3.00
How would you describe your experience during the consultation time with the doctor in terms of explaining the medical diagnosis and treatment methods?	Very satisfied	91	22.75
	Satisfied	169	42.25
	Neutral	66	16.50
	unsatisfied	58	14.50
Do you think that the electronic applications used in the clinic (Raqim, Wasfati) made counseling more efficient and efficient? Raqem: The unified electronic health file to keep patient data confidential. Wasfati: An electronic service that provides medications through connecting PHC with pharmacies through the city to get the drug from any place freely.	Very unsatisfied	16	4.00
	Strongly agree	134	33.50
	Agree	148	37.00
	Neutral	60	15.00
Do health centers provide means to contribute to raising the level of disease prevention, such as vaccinations and early detection examinations for chronic and psychological diseases, in addition to some types of cancers for all family members?	Disagree	45	11.25
	Strongly disagree	13	3.25
	Yes	225	56.25
	No	75	18.75
Is it easy to get a follow-up appointment?	May be	100	25.00
	Yes	279	69.75
	No	121	30.25

Participants' suggestions for improving their experience during their next visit to the primary health care center in Riyadh city included continuing follow-up with the same medical team (60%), providing modern medical devices and equipment (46%), increasing the number of nurse staff (39.25%), and working on suitable design for the health care center (31%). **Table 3** provided detailed information on participants' suggestions for improving their experiences.

The analysis of the relationship between patient characteristics and overall satisfaction with primary health care services in Riyadh city found that female participants reported higher levels of satisfaction compared to males, with a significant p-value of 0.007. Younger patients in the age range of 18-30 years also reported higher levels of satisfaction compared to older patients, with a significant p-value of 0.022. Marital status was also found to be a significant predictor of patient satisfaction, with married participants reporting higher levels of satisfaction compared to unmarried participants, with a p-value of <0.001. Finally, patients with lower incomes (<5000 SR) reported higher levels of satisfaction compared to those with higher incomes, with a significant p-value of 0.002. **Table 4** provided detailed information on the mean of the total satisfaction by characteristics of the participants.

#### 4. Discussions

Patient satisfaction is an essential aspect of healthcare quality that refers to a patient's overall evaluation of the care they received, including factors such as communication with healthcare providers, access to care, and the overall healthcare experience. Positive patient satisfaction is a critical factor in promoting healthy behaviors, maintaining patient engagement, and encouraging treatment adherence, thus contributing to improved health outcomes and reduced healthcare costs. The current study aimed to assess the level of patient satisfaction with primary health care centers in Riyadh city, Saudi Arabia.

##### Patient Demographics:

The current study was conducted on a sample size of 400 participants, with 61% of them being female. The largest proportion of participants (27.75%) belonged to the age range of 41 - 50 years. Approximately half of the participants

**Table 3.** Suggestion for improving patient's experience during the next visits.

		Number	Percentage
Continuing follow-up with the same medical team (a family doctor for each family)	Yes	240	60.00
	No	160	40.00
Increase the number of nursing staff	Yes	157	39.25
	No	243	60.75
Providing modern medical devices and equipment	Yes	184	46.00
	No	216	54.00
Work on developing designs for building health centers	Yes	124	31.00
	No	276	69.00

**Table 4.** Patient characteristics and overall satisfaction with primary health care services.

		Mean**	SD	P-value
Overall satisfaction (out of 30 points)		21.09	4.05	
<b>Gender</b>	Male	20.37	4.22	0.007*
	Female	21.55	3.88	
<b>Age</b>	18 - 30 y	21.97	3.83	0.022*
	31 - 40 y	21.37	3.75	
	41 - 50 y	20.63	3.95	
	51 - 60 y	20.06	4.72	
	>60 y	20.79	3.70	
<b>Educational level</b>	Illiterate	20.83	5.15	0.176
	Primary	20.10	4.05	
	Intermediate	20.37	4.05	
	High school	20.56	4.15	
	Diploma	22.00	2.83	
	University and above	21.58	3.95	
<b>Marital status</b>	Single	21.10	3.83	< 0.001*
	Married	21.77	3.88	
	Widow	18.80	4.25	
<b>Income</b>	<5000 SR	21.81	3.94	0.002*
	5000 - 10,000 SR	20.25	4.09	
	>10,000 SR	21.37	3.94	

were married (48%), and the majority had completed university education or above (55.5%). The average income for most participants was between 5000 - 10,000 Saudi Riyals (40%).

#### **Patient Satisfaction and Characteristics:**

The study found that female, younger age, married, and low-income patients (< 5000 RS) were more satisfied with primary health care services. Education level was not found to be a significant predictor of patient satisfaction. The results of this study are consistent with some previous studies, such as a study conducted in Majma'ah city, which found that males were more satisfied than females with PHC services, and patients with primary education were the most satisfied. Additionally, married patients were more satisfied than single or divorced/widowed patients, and patients with low income were the most satisfied. However, other studies have shown different results, such as a study conducted in Riyadh military hospital, which found that patients of older age were more satisfied with PHC services than their younger counterparts, and patients with lower education level were more satisfied [11] [12].

#### **Appointment Booking and Triage Services:**

The study found that a significant proportion of participants (37.25%) faced problems while booking an appointment through the Appointment application. In contrast, a study conducted in Al Jubail found that 37% of participants faced difficulties in getting an appointment. The majority of participants (42.75%) were satisfied with the triage services provided by primary health care centers. Nonetheless, a significant proportion of patients agreed or strongly agreed that the waiting time was too long (29% and 14.75%, respectively), this is a confirmation of previous study [13].

#### **Dealing with Emergency Cases and Consultation Time:**

The majority of participants (36.75%) were satisfied with the services provided in emergency situations. The study found that patients were satisfied with the care they received from attending physicians, with the majority agreeing (46%) or strongly agreeing (23%) that they were given enough time to clarify their complaints. Similarly, a study conducted in Al Jubail found that the majority of patients reported that their doctor answered all their questions. However, the Abha study reported a higher level of dissatisfaction among patients in this regard [14].

#### **Electronic Applications and Disease Prevention:**

The study found that electronic applications used in the clinic, such as Raqim and Wasfati, were perceived as making counseling more efficient and smooth by 37% of participants. This finding is consistent with the results from a study conducted in Makkah, which found a high level of satisfaction among participants with electronic applications used in healthcare services. The study found that a significant majority of patients (56.25%) reported that health centers provide efforts to contribute to raising the level of disease prevention, such as vaccinations and early detection examinations for chronic and psychological diseases, in addition to some types of cancers for all family members [15] [16] [17].

#### **Suggestions for Improving Patient Experience:**

The majority of patients (60%) expressed a desire for continuing follow-up with the same medical team, such as a family doctor for each family. Just under 40% of patients suggested increasing the number of nursing staff to improve the patient experience, potentially reducing waiting times and improving access to care. A significant proportion of patients (46%) suggested that providing modern medical devices and equipment could improve the patient experience, leading to more efficient and effective care. Finally, a smaller proportion of patients (31%) suggested working on developing designs for building health centers, potentially improving the physical environment [18] [19].

## **5. Conclusions**

Patient satisfaction is an essential aspect of healthcare quality that can impact patient engagement and treatment adherence. The findings of this study suggest that female, younger age, married, and low-income patients are more satisfied with primary health care services in Riyadh city. Patients were satisfied with the



triage services provided by primary health care centers, but waiting times were identified as an area for potential improvement. Patients were generally satisfied with the care they received from attending physicians, but there is a need to improve the communication and consultation time. Electronic applications were perceived as making counseling more efficient and smooth. Patients reported that health centers provide efforts to contribute to raising the level of disease prevention, but there is still room for improvement. The study provides valuable insights into potential ways to improve the patient experience during their next visits to primary health care centers in Riyadh city, Saudi Arabia.

To conclude, the current study highlights that patients visiting primary health care centers in Riyadh city generally reported high levels of satisfaction, with particular emphasis on the satisfaction levels of female, married, younger age, and low-income patients. The implementation of new modifications, such as the use of electronic applications like Raqeem, Wasfaty, and appointment applications, has undoubtedly contributed to enhanced patient experiences in terms of ease, efficiency, and convenience. However, despite these positive findings, there are still areas of healthcare that require improvement to meet patient expectations and ensure optimal healthcare delivery. Hence, healthcare providers must continue to strive towards identifying and addressing such areas to ensure that patients receive the best possible care and experience in primary health care centers.

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### **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

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