



# Evaluation of Patient's Satisfaction Level with the Provided Healthcare in Primary Healthcare Centers in Saudi Arabia

Prof. Dr. Sharifa Ezat Wan Puteh \*, Assoc. Prof. Dr. Azimatun Noor Aizuddin, Abdulaziz Abdullah Al Salem

Department of Community Health, Faculty of Medicine, National University of Malaysia- UKM.

\*Corresponding Author: Prof. Dr. Sharifa Ezat Wan Puteh; [sh\\_ezat@ppukm.ukm.my](mailto:sh_ezat@ppukm.ukm.my)

Received 02 October 2021;

Accepted 20 October 2021;

Published 10 November 2021

## Abstract

The aim of this study was to evaluate patient's satisfaction at primary health centers PHCCs in (Khobar, Jeddah, Riyadh, Jubail, Dhahran, Hail, Majmah, Abha, Baha, and Makkah) located in Saudi Arabia. The review finding shows that the highest overall satisfaction in Baha city (84.16%) followed by Majmah city with (81.7%), and the lowest overall satisfaction was the score (2.44) out of a maximum of 5 for Jubail city and Jeddah (2.45). Dhahran, Hail, Abha, Makkah, Riyadh, and Khobar were scored different scores; (3.66), (3.60), (57.7%), (70.1%), (64.2%) and (3.76). Nursing staff play a vital role in the satisfaction of patients in primary healthcare centers, including education, care and counselling, which is why all nursing staff should be skilled in clinical skills, level of education and interpersonal skills. The highest domain of satisfaction was for nursing performance, and their treatment were found to be high (90.1%), but the lowest score was for the explanation of the medical conditions by the nurses, which could be due to language barrier. Medical care, laboratory services, and pharmacological services are other factors that may impact patient satisfaction with primary health centers. There are significant differences between Abha city (57.7%) and Baha city (84.16%) in south province in their overall satisfaction with Patient's Satisfaction in primary healthcare centers PHCCs. And between Riyadh city (64.2%) and Majmah city (82.0%) in the middle province. In the eastern province, overall satisfaction for three cities Khobar city (3.76), Jubail city (2.44), and Dhahran city (3.66). The western province, overall satisfaction for two cities, Makkah city (70.1%), and Jeddah city (2.45). One city for north province Hail city (3.60). For comparison, the highest overall satisfaction in this study was Baha city (84.16%) located in south province, and the lowest one was Jubail city with score (2.44) out of 5.

**Keywords:** *Patient's Satisfaction, Primary Healthcare, PHCCs, and Saudi Arabia.*

## 1.1 Background

Primary Health Care is essential health care based on delivering integrated health services. The Kingdom of Saudi Arabia adopted this approach in 1980, and by the year 1987 the Ministry of Health had established 1477 Primary Health Care centers. Primary health care (PHC) can be considered the first contact between the patient and the health care system. It includes all the basic health care services to be provided to the community. Thus, PHC is essential for attaining an acceptable level of health for the public. It is also an integral and critical component of the health care system of any country (AlOmar 2000).

The primary health care approach is a relatively new concept in the kingdom of Saudi Arabia. In 1978, the kingdom of Saudi Arabia adopted the strategy of (health for all the year 2000). By 1984, the gradual implementation of a comprehensive plan of primary health care was already started. This step was accompanied by an increase in the number of health centres all over the kingdom. (ALShammari 1991)

Patient's satisfaction regarding health care has often been considered as an objective of the health care. It has also been considered as one of the most important measures for evaluating the health care. For this reason, nursing staff play a main role in patient's satisfaction in primary health care centres, which includes education, care giving and counselling, for this reason all of the nursing staff should be competent in practical skills, level of education, and interpersonal relationship skills. Other factors that may affect patient satisfaction about primary health care centre are medical services, laboratory services and pharmacological services. In our study we focused on nursing services factor. (Makhdoom et al. 1997).

Satisfaction can be defined as the extent of an individual's experience compared with his or her expectations patients' satisfaction is related to the extent to which general health care needs and condition-specific needs are met patient dissatisfaction occurs when the patients' experience of the service falls short of expectations, while patients' satisfaction occurs when the patients' experience of the service exceeds their expectation. The

importance of the differentiation is needed because though satisfaction is essential for keeping high loyalty of the patient, dissatisfaction is crucial because it may lead to unwanted patient future behaviour. Therefore, a well-designed, implemented and used patient satisfaction evaluation systems expected to help PHC improve both clinical and managerial activities (AlOmar 2000). The purpose of this study was to compare the level of patient's satisfaction with the provided health services in Primary Healthcare Centers PHCCs in ten cities located at Saudi Arabia.

#### **1.4 Research Question**

- What is the level of patient's satisfaction with the provided healthcare in Primary Healthcare Centers PHCCs in Saudi Arabia?

#### **1.5 Research Objectives**

- To evaluation the Patient's Satisfaction Level with the Provided Healthcare in Primary Healthcare Centers - PHCCs in Saudi Arabia

### **Literature Review**

#### **2.1 Introduction**

Patient satisfaction is of value to primary health care providers (El Shabrawy & Mahmoud 1993). Patient satisfaction is an important factor to measure the provided health services outcomes. Patient satisfaction is an important and commonly used indicator for measuring the quality in health care. Patient satisfaction affects clinical outcomes, patient retention, and medical malpractice claims. It affects the timely, efficient, and patient-centred delivery of quality health care. Patient satisfaction is thus a proxy but a very effective indicator to measure the success of doctors and hospitals (Prakash 2010).

#### **2.2 Patient's Satisfaction in Primary Healthcare Centers**

##### **PHCCs in Saudi Arabia**

##### **2.2.1 Majmaah city**

PHCCs Patient's satisfaction represents a key marker for the quality of health care delivery and this internationally accepted factor needs to be studied repeatedly for smooth functioning of the health care systems. The objectives of the current study were to determine the level of patients' satisfaction with the primary health care services provided in Majmaah city, Kingdom of Saudi Arabia; to identify the reasons behind satisfaction or dissatisfaction and to determine the effect of the social factors on the level of satisfaction. Study was conducted a cross-sectional facility- based. The sample comprised 370 patients selected by stratified and systematic sampling at the health centres level and the patients' level respectively. The data were collected by a pre-tested questionnaire. Patients' level of satisfaction was 82%. The reasons behind satisfaction were cleanliness of the facilities and technical competencies of the staff (33.1% and 24.2%). The study showed that the most stated reason behind dissatisfaction was the unsuitable buildings (29%). Significant association was found between the level of patients' satisfaction about PHC centres services and the respondents' level of education. The association between level of satisfaction and social factors, males (84.3%) were satisfied more than females (79.8%) about PHC centres services. Those of primary, intermediate and secondary education were satisfied as 95.6%, 88.6% and 82.6% respectively. One hundred and eighty-seven of the married (84.6%) were satisfied about the PHC centres services while 93 (76.2%) of the single and

23 (85.2%) of the widow/divorced were satisfied about PHC centres services. The low, the average and the high-income respondents were satisfied with the PHC centres services as 82.2%, 76.3% and 74.4% respectively. The level of satisfaction with the services provided by PHC centres in Majmaah is high (81.7%). The gender, marital status and income have no effect on the level of satisfaction with the services provided by PHC centres. However, the lower educated are more satisfied than the higher educated. Cleanliness, competence of the staff along with respect and good handling are the drivers behind the high level of satisfaction (Mohamed et al. 2015).

##### **2.2.2 Hail city**

According to study was conducted in Hail city, Saudi Arabia, to measure the levels of satisfaction of patients in the Primary Care Centres (PHCCs) of the Ministry of Health in Hail city, Saudi Arabia and to explore the relationships between different dimensions of patient satisfaction and socio-demographic factors (gender, age, marital status, socio-economic status and education). Understanding these relationships may help policy and decision makers to target improved healthcare services for defined sectors of the population. A cross-sectional quantitative survey was conducted to address the objectives. The population consisted of all the patients visiting six selected PHCCs in Hail during a one-month period. These included two large centres (Algarbi and Alshargi); two medium sized centres (Alnuqrah and Alzahrah) and two small centres (Qnn'a and Alniusiah). The six centres were randomly selected according to their capacity and geographical location. This project received approval from the director of training and planning department, Ministry of Health (MOH) of Saudi Arabia, in Hail city. Six dimensions of patient satisfaction were identified by factor analysis, with adequate to high levels of internal consistency reliability (Cronbach's alpha = 0.645 to 0.857). The questionnaire was completed by 453 patients attending six PHCCs in June 2013 with an 83.8% response rate. The overall level of patient satisfaction on a scale from 1 to 5 was indicated by a mean score of 3.60 (95% CI = 3.53, 3.67) comparable with a previous survey of patient satisfaction in Hail city, conducted in 1999. The respondents reported their highest level of satisfaction for the quality of the services provided by the doctors and staff. The lowest level of satisfaction was for access to medical care and the availability of doctors. Different sectors of the population city were not equally satisfied with all aspects of the healthcare services they received. Older patients, especially those in the middle-income category, were more satisfied with relationships with doctors and staff. The ease of seeing doctors was perceived to be the highest by the older patients, especially those in the lowest income category. Female patients with limited education perceived they received the highest levels of treatment, diagnosis and outcomes. Patients in the lower income categories perceived they had better access to medical care than patients in the highest income category. These relationships may help healthcare providers to meet the different needs of patients based on their gender, age and socio-economic status (Alshammari 2014).

##### **2.2.3 Riyadh city**

A cross-sectional study was conducted in 3 PHC centres, affiliated to Riyadh Military Hospital RMH, Riyadh, Kingdom of Saudi Arabia, over 2 months period in 2006, to assess the level of patients' satisfaction with primary health care PHC services in health centres affiliated to Riyadh Military Hospital RMH, Riyadh, Kingdom of Saudi Arabia. Data was collected using a self-administered questionnaire to assess patients' overall satisfaction

with PHC services and their level of satisfaction with 5 PHC domains: reception services, accessibility, continuity of care, communication, and enablement. Seven hundred questionnaires were distributed yielding 86.6% response rate, 39.6% of our patients were 20-30 years old, 51.5% of the respondents were females, 76.4% were married and 34.5% of them showed a medical visit frequency of a minimum of 8 times per year. The domains of PHC with the highest level of reported satisfaction was enablement (70.6%). The poorest level of satisfaction was at the continuity of care (56.3%). The mean score of satisfaction with reception was 70.0%, communication 69.2%, and accessibility to care was 62.4%. The overall satisfaction level was 64.2%. Patients of older age were more satisfied with PHC services than their younger counterparts ( $p$ -value $<0.001$ ) and patients with lower education level were more satisfied ( $p$ -value $<0.001$ ). Patients' satisfaction was inversely related to their average annual visit frequency to PHC centres ( $p$ -value =0.015). There was no relation found between patients' satisfaction and their gender, marital status, occupational status, and their average monthly income. The level of satisfaction with PHC services in health centres affiliated to RMH is relatively low, results identified areas in which quality improvement is required, mainly accessibility and continuity of care (Al-Sakkak et al. 2008).

Another study was conducted in Riyadh to assess different aspects of patients' satisfaction in relation to the health education services provided in Primary Health Care centers at a Major Medical Center in Riyadh, Kingdom of Saudi Arabia. This is self-administered a cross-sectional survey targeting attendees of PHC centers at Prince Sultan Military Medical City in Riyadh. A total number of 400 participants were enrolled in this study. Data was collected over a 5 months period (Dec 2012 to April 2013). The overall satisfaction reported with health education services was 68%. One to one education clinic was the most preferred method for delivery of health education. The majority of participants preferred the physician as a health education provider. Findings from this study showed that our participants expressed a positive evaluation of the distinct dimensions of the health education services provided. However, services of health education were poorly attended in this institution. Barriers causing poor attendance were attributed to the shortage of trained health education staff, lack of time for the providers, cost, and misunderstanding for the role of the health educator. (Asiri et al. 2013)

#### **2.2.4 Abha city**

*Aim of Study:* This study aims to assess patient's satisfaction regarding consultations at the General Clinics of primary health-care (PHC) centers, in Abha City. *Patients and Methods:* This cross-sectional study design was conducted among adult patients attending training PHC centers in Abha City, Saudi Arabia during September 2016. The researcher designed a data collection sheet that comprised patients' personal characteristics and the consultation satisfaction questionnaire, which contained 18 questions within four dimensions, i.e., general satisfaction; professional care; depth of relationship; and length of consultation. *Results:* The total number of the patient included in this study was 400, more than half of them were male (54%). Most of them were Saudi (90%), married (79%), and educated (93%). More than half 53% were dissatisfied, 20% were satisfied with consultation while 27% were natural. The most important factor affecting satisfaction with consultation was age, education level and income. *Conclusions:* Patients' satisfaction toward their consultation experience at general clinics of training PHC centers in Abha City was suboptimal. Total consultation scores differ significantly

according to their age groups, education level, and monthly income. *Recommendations:* PHC physicians should be more concerned with improving medical consultations provided to their patients. Continuing medical education and training of PHC physicians about provision of medical consultation. Results of this study revealed that participants' satisfaction toward their medical consultation experience at the General Clinics of PHC centers in Abha City was suboptimal. More than 50% of participants were either dissatisfied or very dissatisfied, while  $<20\%$  were either satisfied or very satisfied. Out of a possible score of 100 for each satisfaction component, participants' total score for their satisfaction toward consultation was  $57.7 \pm 6.3$ . Satisfaction was highest regarding professional care ( $80.1 \pm 17.1$ ), while it was least concerning the length of consultation ( $22.4 \pm 19.5$ ). (Tabekhan et al. 2018)

#### **2.2.5 Jubail city**

Patient satisfaction has long been considered an important component when measuring health outcomes and quality of care. The study population consists of patients who came for services to the primary healthcare center in SWCC compound in Jubail. The sample size is 200 patients selected randomly. Cross-sectional descriptive study, a predesigned questionnaire was used. The study identified that patients are generally fluctuated positively towards the level of general practice care; however, some aspects of clinical behavior and organization of care need to be improved. The results of the study showed that out that the waiting area structure, confidentiality measures and environmental structure were the areas that caused most concern to service users. The factors that showed the greater association with satisfaction were the type of the primary health care center building (Purpose-built or rented), literacy status of the household head (Literate or illiterate), the extent of the primary health care center utilization (Regular or infrequent). Surprisingly, age showed no association when other characteristics of respondents were adjusted for and sex was less important than in other studies. A total of 310 beneficiaries were interviewed by using an Arabic translation of the Charleston Psychiatric Outpatient Satisfaction Scale. The beneficiaries appeared to be quite satisfied with the quality of services. Geographical zone, marital status of beneficiary and type of facility were satisfaction-related factors. There were preferences for facilities located within the City Centre over those located elsewhere. There was also an interaction effect of the geographical zone and the type of facility in creating differences in satisfaction. Pitskhelauri et al. evaluated the level of patients' satisfaction with primary health care. International instrument of patients' evaluation of General Practice Care (EUROPEP) was used. The survey indicated that the patients generally rated positively the level of primary health care in all domain of clinical behavior and organization of care. More than of the respondents 55.33% rated level of care as excellent. Patients' opinion is an important tool in evaluation quality of medical care. (Almoajel et al. 2014)

#### **2.2.6 Makkah**

Patient satisfaction scale is considered as one of the desired tools to evaluate the services offered by the healthcare system. It involves multi-dimensional aspects and depends on the quality of clinical services provided. Though majority of Saudi population are using public health sectors, particularly PHCC, the effectiveness and quality of essential services at these centers needs to be evaluated frequently so that a domesticated and localized health care plan could be developed and improved. This study aims to assess patient satisfaction at primary health care centers and to examine

the quality impact with respect to PHC services in Makkah province. A cross-sectional study was obtained in five selected PHCCs with using a pre-designed questionnaire, during 2019. Data regarding patient's opinion related to services offered to Saudi patients at these centers, the response of health care providers and the quality of primary care were analyzed using standard statistical methods. Correlation between quality of health care and quality of the facility along with patient satisfaction level, was determined. Significant association were found in quality of health care, ( $r=0.771$  and  $p\text{-value}<0.001$ ) and quality of the facility, ( $r=0.746$  and  $p\text{-value}<0.001$ ) related to patient satisfaction. The study specified that patients were generally satisfied with the level of quality and medical practices in PHCCs with some aspects of health care need to be improved. This study was conducted at five MOH primary health care centers serving the largest population (more than 279226 inhabitants annually) in Makkah province. These were Batha Quraish, AlAwali, Al-Iskan, Al-Aziziyah Alsharqiya and Kudai. Sample of the study consisted of 100 patients chosen randomly from each respective centre (making a total of 500 participants) to measure patient satisfaction toward services provided and the quality impact. The total scored domains along with patient satisfaction were calculated and classified into three categories including weak level (less than 50%), average (50-70%) and high level of satisfaction (more than 70%) (Khogeer et al. 2020).

### **2.2.7 Jeddah city**

According to a study was conducted to measure consumers' satisfaction and socio-demographic correlates of satisfaction with services provided by Primary Health Care Centres in the city of Jeddah. Study subjects included the consumers visiting the Primary Health Care Centres during the study period. Four Primary Health Care Centres were randomly selected from Jeddah according to the geographical location. Seventy-five subjects were selected systematically where every tenth Saudi aged 15 years or above was chosen. Data was collected via a self-administered pilot tested questionnaire which included socio-demographic characteristics, as well as the overall and differential satisfaction with the different services and facilities in the selected Primary Health Care Centres rated on a scale of 1 - 5 points, the higher the score the higher the satisfaction. Male subjects constituted 60% of the visitors. More than half of the subjects were young 15-29 years of age, about 58% were married, 50% completed intermediate/secondary school, more than two fifths of the subjects were employees and more than three quarters have a monthly income of 6000 Saudi Riyals or less. The summary satisfaction score was 3.76 points and the overall satisfaction with the services provided was 2.45 points out of a maximum of 5 points. The highest satisfaction was for dental clinic (3.44 points) and the lowest for co- operation of the receptionist (1.95 point). Unskilled laborers showed the highest summary and overall satisfaction (4.31 and 2.71 points) and students showed the lowest satisfaction scores (3.54 and 1.89 points). Other socio-demographic variables were not significantly related to summary and overall satisfaction scores. Measuring satisfaction by asking one summary question tends to give a significantly higher satisfaction score compared to satisfaction score taking in consideration of all services offered. Certain service components need corrective intervention measures to make them more satisfactory to consumers (AlDoghaither and Saeed, 2000).

### **2.2.8 Dhahran city**

To evaluate patients' satisfaction in primary health care (PHC) services center. Methods: cross sectional study design was

conducted in the primary health care center at Dharhan. Subjects were selected using systematic random sampling method, data were collected using a pre-tested, self-administered questionnaire. Results: A total of 400 patients (90% response rate) completed the questionnaire. The mean score for overall satisfaction was (3.665) out of a maximum of 5 points. The highest satisfaction was for nursing performance (3.99) and the lowest for pharmacy (3.38). The mean score of satisfaction with the physician performance, radiology, general aspect of health care, laboratory, continuity of care and accessibility were 3.88 ,3.81 ,3.78 ,3.52 ,3.52 and 3.44 respectively. The single male and female participants were significantly more satisfied in general about the center (3.87) but the satisfaction with nurse's performance was the highest among married participants and (3.89) about their satisfaction with doctor's performance. Educational level of participants had significant impact on their level of satisfaction about overall performance and general aspects of health center in that the less the educational level the higher were their satisfaction about the center and vice versa and difference was statistically significant  $< 0.05$ . Other socio-demographic characteristics showed statistically significant difference  $p < 0.05$  was noticed in participants with age of 20 and below. Conclusion: The level of satisfaction with primary health care services was modest. The results revealed areas in which quality improvement is required as accessibility of care and pharmacy service. (Al-Mousa and Sabra, 2014).

### **2.2.9 Baha city**

According to a study was conducted in Al Baha city to evaluate the level of patients' satisfaction in primary health care centers and tertiary hospitals in AlBaha, Saudi Arabia. Using a cross sectional study was carried out during March 2018 using a questionnaire that has combined (outpatient and inpatient) measures to include admitted patients and clinics' attendants. After explaining the study nature and purpose, an individual consent was obtained from all the participants prior to filling the questionnaire. The data were analyzed using a computer program (SPSS, version 21.00). Findings of this study, 303 responses were analyzed, of which (50.8%) were males, (93.1%) were aged from 15 to 45 years, about two thirds (65.3%) were single, (79.9%) were income-satisfied, and the majority (69.6%) has completed or still studying at the university, which indicates a high educational level among our sample. (82.8%) were satisfied about nurses' treatment, (90.1%) were satisfied about doctors' treatment, and around (79.6%) were satisfied about the cleanliness, quietness, and design of the facility. The satisfaction about nurses and their treatment were found to be high. The lowest score was for the explanation of the medical conditions by the nurses, which could be due to language barrier. Doctors have slightly higher levels of satisfaction by their patients, and the same addressed issue of explaining the medical condition was reported by our sample. Upon analysis of cleanliness, quietness, privacy, and difficulty moving around the hospital. The results indicated high levels of satisfaction about privacy and moving around, while the facilities visitors were not very pleased about quietness and cleanliness. The satisfaction among our sample is considered high and indicates a good care provided by health facilities in Al-Baha region, Saudi Arabia. Male gender and higher educational level were associated with higher levels of satisfaction. The least satisfactory factor was regarding communication; therefore, we recommend implanting programs concerning communication skills for health care providers.

The current study indicated a high level of satisfaction among the attendants of PHC centers and hospitals in Al-Baha, Saudi Arabia. Male gender, higher education, and income-satisfaction were

significantly associated with the high levels of satisfaction. The unsatisfying factor was that doctors and nurses did not explain to the patients' health issues sufficiently. Thus, we recommend implanting programs concerning communication skills for health care providers. (Almutairi et al. 2018)

**2.2.10 Khobar city**

A study was conducted to assess the satisfaction of attendees of primary health care centers regarding health services. A cross-sectional study carried on a sample of 1990 subjects. Setting: The primary health care centers in Al-Khobar town, Saudi Arabia, during September, 1995. Subjects: A random sample of 1990 subjects drawn from the population of attendees of primary health care centers aged 15 years and above. Methods: Subjects were

interviewed using a questionnaire incorporating 40 items using a 5-point-based Likert Scale describing, 7 aspects of health services received. Mean satisfaction scores were calculated and factors associated with them studied. The finding of the study revealed a high score of overall satisfaction, but lesser and variable satisfaction scores for specific aspects of services. Being of a Saudi nationality was negatively associated with the mean overall satisfaction score. Finally: In general, there was reasonable satisfaction with aspects of health services offered. Some factors were negatively associated with the mean satisfaction scores. (Makhdoom et al. 1997)

The included studies as shown in Table 2.3.

**Table 2.3: Summary of included studies**

No.	Reference	Aim/s	Methodology and methods	Topic
1	Yahia Maq et al. 1997 <b>KHOBAR CITY</b>	To assess the satisfaction of attendees of primary health care centers regarding health services	A cross-sectional study carried on a sample of 1990 subjects. Setting: The primary health care centers in Al-Khobar town, Saudi Arabia, during September, 1995.	Satisfaction with health care among primary health care centers attendees' in Al-Khobar, Saudi Arabia
2	Al-Doghaither A & A A Saeed, 2000 <b>JEDDAH CITY</b>	To study consumers' satisfaction and socio-demographic correlates of satisfaction with services provided by Primary Health Care Centres in the city of Jeddah.	Four Primary Health Care Centres were randomly selected from Jeddah according to the geographical location. Seventy five subjects were selected systematically where every tenth Saudi aged 15 years or above was chosen, (Questionnaire)	Consumers' satisfaction with primary health services in the city of Jeddah, Saudi Arabia
3	Al- Sakkak et al. 2008 <b>RIYADH CITY</b>	To assess the level of patients' satisfaction with primary health care PHC services in health centers affiliated to Riyadh Military Hospital RMH, Riyadh.	A cross-sectional study was conducted in 3 PHC centers, affiliated to Riyadh Military Hospital RMH, Riyadh,	Patient satisfaction with primary health care services in Riyadh
4	Alia Almoajel 2014 <b>JUBAIL CITY</b>	To assess the patient's satisfaction level with different aspects of primary health care services. And, To assess the availability of health education programs	Cross-sectional descriptive study, a predesigned questionnaire was used. The study identified that patients are generally fluctuated positively towards the level of general practice care; Patient Satisfaction in Primary Health Care	Patient Satisfaction with Primary Health Care in Jubail City, Saudi Arabia
5	Noura. Al-Mousa, & Amr Ahmed Sabra., 2014 <b>DHAHRAN CITY</b>	To evaluate patients' satisfaction in primary health care (PHC) services center.	Cross sectional study design was conducted in the primary health care center at Dharhan. Subjects were selected using systematic random sampling method	Patients Satisfaction In Primary Health Care Services In Primary Care Setting Dhahran, Saudi Arabia
6	Alshammari, 2014 <b>HAIL CITY</b>	To explore the factors contributing to patient Satisfaction in Primary Healthcare Centers (PHCCs) in Hail city, Saudi Arabia	A cross-sectional quantitative survey was conducted using an instrument with valid and reliable properties	Patient satisfaction in primary health care centers in Hail city, Saudi Arabia
7	Mohamed et al. 2015 <b>MAJMAH CITY</b>	To determine the level of patients' satisfaction with the primary health care services provided in Majmaah city, Kingdom of Saudi Arabia; And, To identify the reasons behind satisfaction or dissatisfaction and to determine the effect of the social factors on the level of satisfaction.	A cross-sectional facility- based. The sample comprised 370 patients selected by stratified and systematic sampling at the health centers' level and the patients' level respectively. The data were collected by a pre-tested questionnaire and analyzed by SPSS software, (Questionnaire)	Patients' Satisfaction with Primary Health Care Centers' Services, Majmaah, Kingdom of Saudi of Saudi Arabia
8	Almutairi et al. 2018 <b>ALBAHA CITY</b>	To evaluate the level of patients' satisfaction in primary health care centers and tertiary hospitals in AlBaha, Saudi Arabia.	A cross sectional study was carried out during March 2018 using a questionnaire that has combined (outpatient and inpatient)	Patients' Satisfaction with Health Care Services in Southern Saudi Arabia

9	Tabekhan et al. 2018 <b>ABHA CITY</b>	To assess patients satisfaction regarding consultations at the General Clinics of primary health-care (PHC) centers, in Abha City.	cross-sectional study design was conduct among adult patients attending training PHC centers in Abha City, Saudi Arabia during September 2016.	Patients satisfaction with consultation at primary health care centers in Abha City, Saudi Arabia
10	Khogeer et al. 2020 <b>MAKKAH CITY</b>	To measure patient satisfaction toward services provided and the quality impact.	A pre-designed questionnaire was used, which contains 47closed-ended questions and specific questions on socio-demographic information	A study of patient satisfaction at primary health care centers and the quality impact of the services in Makkah

## Materials and Methods

The aim of this article was to provide an overview of existing research reporting and published studies from 1997 to 2020 in PubMed, MEDLINE, and ResearchGate on the level of Patient’s Satisfaction with the Provided Health Services in Primary Healthcare Centers PHCCs in 10 cities located in Saudi Arabia (Khobar, Jeddah, Riyadh, Jubail, Dhahran, Hail, Majmah, Abha, Baha, and Makkah) to evaluate the level of Patient’s Satisfaction in primary healthcare centers in Saudi Arabia. A systematic literature searches and assessment of published research in the field of Patient’s Satisfaction with primary healthcare center. This article will provide an overview of the comparison among PHCCs with the level of Patient’s Satisfaction in primary healthcare centers in ten cities located at Saudi Arabia.

Saudi Arabia consists of thirteen administrative regions distributed into 5 geographical provinces (states): the western province, the eastern province, the north province, the south province, and the middle province.

## Result

Evaluation of patient satisfaction among thousands of participants from different 10 cities (Khobar, Jeddah, Riyadh, Jubail, Dhahran, Hail, Majmah, Abha, Baha, and Makkah) located at Saudi Arabia show that there is no a considerable difference between these cities. Limited study review on this topic makes it hard to compare present study findings. Finding is there is no a considerable difference between these cities, the highest overall satisfaction in Baha city (84.16%) followed by Majmah city with (81.7%), and the lowest overall satisfaction is the score (2.44) out of a maximum of 5 for Jubail city. Dhahran, Hail, Abha, Makkah, Riyadh, and Khobar were scored different scores; (3.66), (3.60), (57.7%), (70.1%), (64.2%) and (3.76). The highest domain of satisfaction was for nursing performance, and their treatment were found to be high (90.1%), but the lowest score was for the explanation of the medical conditions by the nurses, which could be due to language barrier.

There are differences between Abha city (57.7%) and Baha city (84.16%) in south province in their overall satisfaction with Patient’s Satisfaction in primary healthcare centers PHCCs. And between Riyadh city (64.2%) and Majmah city (82.0%) in the middle province. In the eastern province, overall satisfaction for three cities Khobar city (3.76), Jubail city (2.44), and Dhahran city (3.66). The western province, overall satisfaction for two cities, Makkah city (70.1%), and Jeddah city (2.45). One city for north province Hail city (3.60). For comparison, the highest overall satisfaction in this study was Baha city (84.16%) located in south province, and the lowest one was Jubail city with score (2.44) out of 5.

- i. Jeddah, the highest satisfaction was for dental clinic (3.44 points) and the lowest for co- operation of the receptionist (1.95 point). Unskilled laborers showed the highest summary and overall satisfaction (4.31 and 2.71 points) and students showed the lowest satisfaction scores (3.54 and 1.89 points).
- ii. Riyadh, the domains of PHC with the highest level of reported satisfaction was enablement (70.6%). The poorest level of satisfaction was at the continuity of care (56.3%). The mean score of satisfaction with reception was 70.0%, communication 69.2%, and accessibility to care was 62.4%. The overall satisfaction level was 64.2%. The level of satisfaction with PHC services in health centers affiliated to RMH is relatively low, results identified areas in which quality improvement is required, mainly accessibility and continuity of care.
- iii. Jubail, the factors that showed the greater association with satisfaction were the type of the primary health care center building (Purpose-built or rented), literacy status of the household head (Literate or illiterate), the extent of the primary health care center utilization (Regular or infrequent). The beneficiaries appeared to be quite satisfied with the quality of services. Geographical zone, marital status of beneficiary and type of facility were satisfaction-related factors. The survey indicated that the patients generally rated positively the level of primary health care in all domain of clinical behavior and organization of care. More than of the respondents 55.33% rated level of care as excellent.
- iv. Dhahran, the mean score for overall satisfaction was (3.665) out of a maximum of 5 points. The highest satisfaction was for nursing performance (3.99) and the lowest for pharmacy (3.38). The mean score of satisfaction with the physician performance, radiology, general aspect of health care, laboratory, continuity of care and accessibility were 3.88 ,3.81 ,3.78 ,3.52 ,3.52 and 3.44 respectively. The level of satisfaction with primary health care services was modest. The results revealed areas in which quality improvement is required as accessibility of care and pharmacy service.
- v. Hail, the overall level of patient satisfaction on a scale from 1 to 5 was indicated by a mean score of 3.60 (95% CI = 3.53, 3.67) comparable with a previous survey of patient satisfaction in Hail city, the respondents reported their highest level of satisfaction for the quality of the services provided by the doctors and staff. The lowest level of satisfaction was for access to medical care and the availability of doctors. Different sectors of the population city were not equally satisfied with all aspects of the healthcare services they received. Older patients, especially those in the middle-income category, were more satisfied with relationships with doctors and staff.

The ease of seeing doctors was perceived to be the highest by the older patients, especially those in the lowest income category. Female patients with limited education perceived they received the highest levels of treatment, diagnosis and outcomes. Patients in the lower income categories perceived they had better access to medical care than patients in the highest income category.

- vi. Majmah, Patients' level of satisfaction was 82%. The reasons behind satisfaction were cleanliness of the facilities and technical competencies of the staff (33.1% and 24.2%). The study showed that the most stated reason behind dissatisfaction was the unsuitable buildings (29%). The level of satisfaction with the services provided by PHC centers in Majmaah is high (81.7%). the lower educated are more satisfied than the higher educated. Cleanliness, competence of the staff along with respect and good handling are the drivers behind the high level of satisfaction.
- vii. Abha, more than half 53% were dissatisfied, 20% were satisfied with consultation while 27% were natural. Total consultation scores differ significantly according to their age groups, education level, and monthly income. More than 50% of participants were either dissatisfied or very dissatisfied, while <20% were either satisfied or very satisfied. Out of a possible score of 100 for each satisfaction component, participants' total score for their satisfaction toward consultation was  $57.7 \pm 6.3$ . Satisfaction was highest regarding professional care ( $80.1 \pm 17.1$ ), while it was least concerning the length of consultation ( $22.4 \pm 19.5$ ).
- viii. Baha, (82.8%) were satisfied about nurses' treatment, (90.1%) were satisfied about doctors' treatment, and around (79.6%) were satisfied about the cleanliness, quietness, and design of the facility. The satisfaction about nurses and their treatment were found to be high. The lowest score was for the explanation of the medical conditions by the nurses, which could be due to language barrier. Doctors have slightly higher levels of satisfaction by their patients, and the same addressed issue of explaining the medical condition was reported by sample. The satisfaction among our sample is considered high and indicates a good care provided by health facilities in Al-Baha region, Saudi Arabia. Male gender and higher educational level were associated with higher levels of satisfaction. The least satisfactory factor was regarding communication. A high level of satisfaction among the attendants of PHC centers and hospitals in Al-Baha, Saudi Arabia. Male gender, higher education, and income-satisfaction were significantly associated with the high levels of satisfaction. The unsatisfying factor was that doctors and nurses did not explain to the patients' health issues sufficiently.
- ix. Makkah, the study specified that patients were generally satisfied with the level of quality and medical practices in PHCCs with some aspects of health care need to be improved. Results showed that patients were satisfied with 69.56% for doctors using computerized medical records in PHCCs and the lowest percentage with 4.2% were strongly disagree. Overall, the cleanliness of the centers, in general, showed to be scored by 67.64% and some visualized places have more than 69% record of patient's satisfaction.

- x. And in Khobar, there was reasonable satisfaction with aspects of health services offered. Some factors were negatively associated with the mean satisfaction scores.

The level of patient's satisfaction with the healthcare services provided by primary healthcare centers PHCCs (Percentage, and Score 1 to 5) in 10 cities as shown in Table 4.1

**Table 4.1: The level of patient's satisfaction among ten cities in Saudi Arabia**

	City	The Level of Satisfaction with The Services Provided By PHC Centres	
		Percentage (%)	Score 1 to 5
1	Khobar		3.76
2	Jeddah		2.45
3	Riyadh	64.2%	
4	Jubail		2.44
5	Dhahran		3.665
6	Hail		3.60
7	Majmah	82.0%	
8	Abha	57.7%	
9	Baha	84.16%	
10	Makkah	70.1%	

### Conclusion

The socio-demographic variables were not significantly related to summary and overall satisfaction scores. The age, gender, and marital status have no effect on the level of satisfaction with the services provided by PHC centers. But educational level, income, the geographical zone and the type of facility effect in differences of satisfaction. During these studies, the highest satisfaction was for nursing performance, and their treatment were found to be high, but the lowest score was for the explanation of the medical conditions by the nurses, which could be due to language barrier ( Nursing staff play a vital role in the satisfaction of patients in primary health care facilities, including education, care and counselling, which is why all nursing staff should be skilled in clinical skills, level of education and interpersonal skills. Medical care, laboratory services, and pharmacological services are other factors that may impact patient satisfaction with primary health centers) The satisfaction about nurses and their treatment were found to be high. The lowest score Doctors have slightly higher levels of satisfaction by their patients. Followed by pharmacy, radiology, general aspect of health care, laboratory, continuity of care and accessibility are differed from city to another. As well, cleanliness, competence of the staff along with respect and good handling are the drivers behind the high level of satisfaction in some PHCCs.

### Acknowledgments

The authors are thankful to all the associated personnel, who contributed to this study by any means.

### Disclosure

I have NO financial relationship and NO actual or potential conflict of interest in this work.

### References

- [1] Abdullah Khlofth Tabekhan, Yahia Mater Alkhaldi, Abdullah Khalufah Alghamdi, 2018. Patients satisfaction with consultation at primary health care centers in Abha City, Saudi Arabia. *Journal of Family Medicine* Year: 2018, Volume: 7, Issue : 4, Page : 658-663 .
- [2] A H Al-Doghaither, and A A Saeed.2000. Consumers' satisfaction with primary health services in the city of Jeddah, Saudi Arabia, *Saudi Medical Journal*. 21(5):447-54.
- [3] Alia Almoajel, Ebtisam Fetohi and Amani Alshamrani. 2014. Patient Satisfaction with Primary Health Care in Jubail City, Saudi Arabia, *World Journal of Medical Sciences* 11 (2): 255-264
- [4] Almutairi Omar Owaidh, Alqarni Abdullrahman Atiah, Alzahrani Saif Abadi, Alzahrani Mohammed Ali, Alghamdi Mohammed Abdullah, Alzahrani Abdulrahman Abdullah, Alzahrani Mohammed Hassan, 2018. Patients' Satisfaction with Health Care Services in Southern Saudi Arabia. *Egyptian Journal of Hospital Medicine*. Vol. 72 (1), Page 3857-3860
- [5] Asim A. Khogeer, Abdelaziz M. Al-Garf , Khalid S. Almallki , Amair O. Aljhni , Ahmad A. Shata , Mohammad A. Faiyadhah , Abdullah M. Alsufi , Jamil A. Serdar, Hani K. Mahjoub , Ahmad N. Khawandanah , Hatim A. Khogeer , Nadier H. Motair , Ahmed M. Al-Kharouby , Waiel H. Motair , Sari I. Asiri.2020. A study of patient satisfaction at primary health care centers and the quality impact of the services in Makkah, *Journal of American science*. ;16(4):29-39]
- [6] Badran A.AL-Omar 2000. Patient's Expectation, Satisfaction and Future Behaviour in Hospitals in Riyadh city, *Saudi medical journal* 2000,21(7):65665.
- [7] Bhanu Prakash. 2010. Patient satisfaction. *Journal of Cutaneous and Aesthetic surgery*. 2010 Sep;3(3):151-5
- [8] Elsadig Yousif Mohamed, Waqas Sami, Abdullah Alotaibi, Abdulrahman Alfarag, Ahmed Almutairi, and Fahad Alanzi, 2015. Patients' Satisfaction with Primary Health Care Centers' Services, Majmaah, Kingdom of Saudi of Saudi Arabia. *International Journal of Health sciences*, 9(2): 163–170.
- [9] Maher A. Al-Sakkak, Nourah A. Al Nowaiser, Hesham I. Alkhasban, Ashraf Abdulrabanabi, Rana Jaber, 2008. Patient satisfaction with primary healthcare services in Riyadh. *Saudi Medical Journal*. 2008. Vol.29 (3) :432-436
- [10] M. El Shabrawy Ali & M. Eisa Ali Mahmoud, 1993. A study of patient satisfaction with primary health care services in Saudi Arabia. *Journal of Community Health*,
- [11] S.A.AL-Shammari.1991. Use and Abuse of Emergency Services in Riyadh Health Centre in Saudi Arabia, *Saudi medical journal* 12(6)1991.
- [12] Yahia Makhdoom, Ahmed G. Elzubier, Muhammed Hanif 1997.Satisfaction with Health Care Among Primary Healthcare Centre Attendees in Al-Khobar, Saudi Arabia, *Saudi medical journal* 18(3)1997.
- [13] Nadia Asiri, Amen A Ahmed Bawazir, and Hoda Jradi.2013. Patients Satisfaction with Health Education Services at Primary Health Care Centers in Riyadh, KSA. *Journal of Community Medicine & Health Education*.
- [14] Noura. Al-Mousa and Amr Ahmed Sabra, 2014. Patients Satisfaction in Primary Health Care Services in Primary Care Setting Dhahran, Saudi Arabia. *International Journal of Medical and Health Sciences*.
- [15] Alshammari, 2014. Patient satisfaction in primary health care centers in Hail city, Saudi Arabia. *American Journal of Applied Sciences* 11(8):1234-1240



Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit <https://creativecommons.org/licenses/by/4.0/>.

© The Author(s) 2021