

Patients' Satisfaction with Primary Health Care Centers' Services in Taif, Saudi Arabia (2019)

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Abstract Background: Patient satisfaction is considered an essential part in evaluating quality of care and health outcomes. It is a complex relationship between their perceived needs and expectations from the health services received. **Objectives:** To evaluate the level of satisfaction about primary health care services and determine the relationship between the level of satisfaction and socio-demographic factors of patients attending PHC centers. **Methods:** A cross-sectional study was conducted in the primary healthcare (PHC) centers, belonging to Ministry of Health (MOH) in Taif city. A multistage random sampling technique was adopted to select a sample of adult patients attending these centers during the study period (Feb-Mar, 2019). Interview Arabic questionnaire was used for collecting data. It consisted of 38 close-ended questions regarding satisfaction with PHC centers' services and 6 specific questions on Socio-demographic characteristics. **Results:** Three hundreds and seven persons were involved in this study. Females represent 60.2% of them. Those aged between 20 and 40 years represent 61.7% of the participants. Overall, the highest satisfaction score was observed regarding humaneness and communication dimensions (mean score was 2.78 out of 3) while the lowest satisfaction score was observed regarding continuity dimension (mean score was 2.24), health education dimension (mean score was 2.33) and overall dimension (mean score was 2.2). The total patients' satisfaction score ranged between 48 and 110 (out of a maximum possible score of 114). The median score (IQR) was 95 (88-99). Female patients were more satisfied with PHC centers' services than male patients (mean ranks were 177.55 and 156.04, respectively), $p=0.047$. Married patients were more satisfied with PHC centers' services than singles (mean rank was 186.54 versus 111.25), $p<0.001$. Concerning educational level, Bachelor/above holders had the highest satisfaction score (mean rank=179.31) while those below secondary school graduated had the lowest score (mean rank=124.96), $p=0.025$. Retired/not working patients had the highest satisfaction score (mean rank=193.14) while students had the lowest satisfaction score (mean rank=125.73), $p<0.001$. **Conclusion:** Overall, patients were satisfied with services provided by PHC centers, Ministry of health in Taif City. However, majority of them thought that the services provided in the center could be better.

Keywords: patients' satisfaction, primary healthcare, quality of care, Saudi Arabia

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1. Introduction

According to the world Health Organization "WHO" (1978) "Primary Health Care (PHC) is fundamental health care based on delivering integrated health care services of promotive, preventive, curative and rehabilitative aspects". [1] The Saudi Constitution states that health care is the right of every citizen, and in 1980 the government of Saudi Arabia applied the WHO "Health for All" concept and considered the PHC as the corner stone to achieve that aim. [2] Since then the Saudi government cancelled all its old dispensaries and maternal and child health centers, and integrated their services into PHC centers to deliver PHC services. [3]

The strategies of PHC development in the kingdom of Saudi Arabia (KSA) includes expanding PHC facilities, co-ordination between primary, secondary, and tertiary health care facilities as well as inter and intra-sectional co-ordination with the Ministry of Health (MOH). These strategies aimed at promoting positive relationships between PHC facilities and their consumers to develop active consumer participation. [4]

In recent few decades, health-care services in KSA have focused on PHC, [5] result in great advancement in health-care services. [6] The Ministry of Health (MOH) primary healthcare system includes 2259 PHC centers located throughout the kingdom, providing comprehensive PHC services. [7]

Patient satisfaction is considered an essential part in evaluating quality of care and health outcomes. [8] It is a

complex relationship between their perceived needs and expectations from the health services received. [9] So, satisfaction is one of the variables affecting the outcomes of health care and use of services. [9,10]

In order to improve the provision of care, predictors of dissatisfaction must be identified and eliminated. [11] User satisfaction with the health care is a basic component in evaluating health care quality. [12] The importance of the patient's opinion and his perception of treatment and care at health facilities are now recognized in all developed systems of health care. [13]

Rapid urbanization, economic as well as social transformation have been observed in KSA in the last few decades and this lead to an increase in Saudi individual's needs and expectations for high quality health services, therefore it was mandatory to create an accurate means of evaluating patient's satisfaction that has an impact on some important health-related behaviors, such as adherence to therapy, appointment keeping, and proper utilization of medical services. [14]

There are several reasons to study the concept of patient satisfaction. It is considered as an important outcome of the quality of healthcare. Getting views of the patients on the care services is a much realistic tool to evaluate and improve the health care services. [8] This study aimed to assess the level of patient satisfaction concerning primary health care services in Taif city, Kingdom of Saudi Arabia in order to define areas that need improvement.

2. Methods

A cross-sectional study design was adopted in this study. It was conducted in the primary healthcare (PHC) centers, belonging to Ministry of Health (MOH) in Taif city. There are 19 centers, distributed over the four main geographical zones (East, West, north and South). All adult patients attending PHC centers, MOH in Taif during the study period (Feb-Mar, 2019) were eligible to be included in the study, provided that they had inclusion criteria (age between >18 and less 65 years, Arabic speakers "Saudi and non-Saudi" and both genders). Severely ill patients and those with mental or communication problems were excluded.

The sample size was estimated to determine the level of patient satisfaction with provided primary healthcare's services of 72.5% (according to a study carried out in Riyadh city), [15] with a 5% absolute error at 95% level of confidence. Using the single proportion equation for dichotomous variables in Epi-Info 6.04 software package, the required sample size was 302 patients. After adjustment for a dropout rate of 10%, it was increased to 335 patients.

Multistage random sampling technique was adopted. In the first stage, PHC centers in Taif city were divided into four groups according to their geographic location (East, West, North, and South) and two of them were selected by simple random technique. In the second stage, two PHC center were selected from each of the two selected groups. Thus, 4 PHC centers were recruited. In the third stage, patients were almost equally distributed on the four centers, therefore about 84 patients were recruited from each center and invited to participate in the study by filling in the study questionnaire. In the last stage, patients

were selected by a consecutive sampling technique till the required sample was reached from each center. Almost two weeks were needed to recruit sample from each center.

Interview Arabic questionnaire was used for collecting data. It has been previously adopted in a study conducted in Jubail city, 2014 and proved to be valid and reliable. [16] Permission to utilize the questionnaire was requested from the author through personal communication. It consisted of 38 close-ended questions and 6 specific questions on Sociodemographic background (age, gender, nationality, marital status, occupation, and education) characteristics. The questionnaire was divided into six dimensions of care: Each dimension (accessibility, continuity, humaneness, comprehensive, communication, health education and overall) has a number of statements that measure patient satisfaction.

1. Accessibility dimension measured satisfaction related to time and efforts require getting an appointment, distance and proximity of site of care, convenience of working hours to the patient etc.
2. Continuity dimension focused on the medical record, referral time, contact between the clinic and the patient.
3. Humaneness dimension measured how the reception, doctors, nurses and other staff of the clinic treat the patient, respect, privacy.
4. Comprehensive dimension focused on periodic check-up, information on medical record, lab results, etc.
5. Communication dimension measured the satisfaction related to the patient-provider relationship.
6. Health education dimension focused on the availability of educators and education programs in the clinic.

Responses of the participants were scored in the way that agree was assigned a score of 3, don't know was assigned a score of 2 and disagree was assigned a score of 1. The scores of some statements were reversed so as the highest score reflect the better satisfaction. Total and subtotal scores were computed. The total satisfaction score ranged between 0 and 114. It was abnormally distributed as shown by significant Shapiro-wilk test, $p < 0.001$.

Data collection was carried out during the period from Feb-march, 2019. Questionnaire forms were handed to patients after explanation of the aim of the study. They were checked for completeness and validated by the investigator, who was available at time of data collection to clarify any inquires.

Written permission from Family Medicine program, MOH, Taif Region, Saudi Arabia was obtained before conducting the research. Also, written permission from the director of the primary care. MOH in Taif was obtained. Additionally, permissions of all PHCCs directors were obtained. An informed verbal consent was obtained from any patient before participation in the study.

The data were verified by hand then coded and entered to a personal computer. SPSS software statistical program version 25 was utilized for data entry and analysis. Continuous variables were presented as arithmetic mean and standard deviation (SD) while categorical variables were presented as frequencies and percentages. Since the total satisfaction score was abnormally distributed, it was described as median and inter-quartile range (IQR) and non-parametric statistical tests were used for comparisons;

Mann-Whitney test to compare between two groups and Kruskal-Wallis test to compare between more than two groups. P-value of less than 0.05 was considered significance throughout the study.

3. Results

Table 1. Socio-demographic characteristics of the participants

	Frequency	Percentage
<i>Gender</i>		
Male	134	39.8
Female	203	60.2
<i>Age in years</i>		
<20	45	13.4
20-40	208	61.7
>40	84	24.9
<i>Marital status</i>		
Single	73	21.7
Married	248	73.6
Divorced/widowed	16	4.7
<i>Nationality</i>		
Saudi	328	97.3
Others	9	2.7
<i>Educational level</i>		
Illiterate	7	2.1
Below secondary school	36	10.7
Secondary school	124	36.8
Bachelor/above	170	50.4
<i>Job status</i>		
Student	56	16.6
Governmental employee	95	28.2
Private sector employee	17	5.0
Retired/not working	169	50.1

Three hundred and seven persons were involved in this study. Their socio-demographic characteristics are summarized in Table 1. Females represent 60.2% of them. Those aged between 20 and 40 years represent 61.7% of

the participants. Majority of them were married (73.6%) and Saudi nationals (97.3%). Almost half of the participants (50.4%) were Bachelor/above holders and retired/not working (50.1%).

3.1. Dimensions of Satisfaction with PHC Center Services

1. Accessibility

Majority of the participants (90.8%) stated that the distance from their home to the medical clinic is acceptable. Most of them agreed that the working hours of the clinic are suitable (71.2%) and they are able to get medical care whenever they need it (64.3%). Almost half of them didn't spend too long time in the waiting room for a routine visit (50.2%) and disagreed with finding hard to get an appointment for medical care right away (56.4%). (Table 2)

2. Continuity

It is clear from Table 3 that majority of the participants (97%) agreed that the clinic provides all their family's vaccination needs and almost two-thirds (65.6%) agreed that the doctor can easily access their hospital medical record. On the other hand, only 22% were seen by the same doctor for each visit and 49% were not contacted by the clinic if they fail to attend for a follow-up appointment. Nearly half of the participants (54.6%) found it easy to be referred from the clinic to the hospital. (Table 3)

3. Humaneness

Majority of the participants agreed that the reception, doctors and nursing, specialist and laboratory staff at the clinic treat them well and with respect (96.7%, 96.1% and 90.8%, respectively). Majority of them (91.4%) stated that the staff at the clinic respects their privacy and 78.6% agreed that the medical authorities in the clinic listen to their complaints. However, only 57.8% stated that the PHC center staff provides quick services for urgent health problem.

Table 2. Satisfaction of the participants with accessibility of the primary health care center

	Agree N (%)	Disagree N (%)	Do not know N (%)	Mean±SD
The distance from my home to the medical clinic is acceptable.	306 (90.8)	31 (9.2)	0 (0.0)	2.82±0.58
The working hours of the clinic are suitable.	240 (71.2)	73 (21.7)	24 (7.1)	2.50±0.83
The time spent in the waiting room for a routine visit is too long.	142 (42.1)	169 (50.2)	26 (7.7)	2.08±0.96
I find it hard to get an appointment for medical care right away.	115 (34.1)	190 (56.4)	32 (9.5)	2.22±0.93
I am able to get medical care whenever I need it.	217 (64.3)	106 (31.5)	14 (4.2)	2.33±0.92

Table 3. Satisfaction of the participants with continuity of the primary health care center` services

	Agree N (%)	Disagree N (%)	Do not know N (%)	Mean±SD
I am contacted by the clinic if I fail to attend for a follow-up appointment	114 (33.8)	165 (49.0)	58 (17.2)	1.85±0.90
I find it easy to be referred from the clinic to the hospital.	184 (54.6)	76 (22.6)	77 (22.8)	2.32±0.82
I see the same doctor for each visit.	74 (22.0)	206 (61.1)	57 (16.9)	1.61±0.82
The clinic provides all my family's vaccination needs.	327 (97.0)	4 (1.2)	6 (1.8)	2.96±0.25
The doctor can easily access my hospital medical record.	221 (65.6)	61 (18.1)	55 (16.3)	2.47±0.78

Table 4. Satisfaction of the participants with humaneness of the staff at the primary health care center

	Agree N (%)	Disagree N (%)	Do not know N (%)	Mean±SD
The reception at the clinic treats me well and with respect.	326 (96.7)	11 (3.3)	0 (0.0)	2.93±0.36
The doctors at the clinic treat me well and with respect.	324 (96.1)	5 (1.5)	8 (2.4)	2.95±0.28
The nursing, specialist and laboratory staff treat me well with respect.	306 (90.8)	16 (4.7)	15 (4.5)	2.86±0.46
Medical authorities in the clinic listen to my complaints.	265 (78.6)	29 (8.6)	43 (12.8)	2.70±0.62
The staff at the clinic respects my privacy.	308 (91.4)	13 (3.9)	16 (4.7)	2.88±0.43
Provide quick services for urgent health problem.	195 (57.8)	73 (21.7)	69 (20.5)	2.36±0.82

4. Comprehensive

As shown in Table 5, most of the participants agreed that the doctor provides them with a comprehensive medical examination when they need it (76%) and at every medical visit the temperature, weight, and blood pressure were measured (72.1%). Almost half of the participants agreed that all their family members with a file at the clinic have had a "check-up" (55.2%), the data on their file are comprehensive and accurate (53.7%), and the medical staff that treats them knows about the latest medical developments (51.4%). Less than half of the participants (47.8%) agreed that the laboratory test were reported promptly.

5. Communication

As realized from Table 6, majority of the participants agreed that the doctor listened to them carefully (93.8%), the time spent with the doctor was enough (91.8%) and the doctor treats them in a very friendly and courteous manner (88.4%). On the other hand, most of them disagreed that

the doctor did not answer all their questions (78%) and sometimes the doctor made them feel foolish (85.5%).

6. Health education

As seen in Table 7, majority of the participants agreed that the medical staff explained to them the reasons for the tests, examination and treatments (88.2%) and the specialist gave them enough information about their health (87.2%). However, almost half of them agreed that the language that used was simple and easy to understand (59.6%) and there were available brochures about common medical problems (50.4%). Less than half of the patients were satisfied with the number of awareness programs that held at the center (43%), presence of educational films shown in the center (33.5%). About a third of the participants stated that the specialist told them to search the Internet to find out their health condition and how to deal with it (34.1%) thought that the center does not care about providing educational leaflets or brochures for the patient (31.5%).

Table 5. Satisfaction of the participants with comprehensiveness of the offered services at the primary health care center

	Agree N (%)	Disagree N (%)	Do not know N (%)	Mean±SD
All my family members with a file at the clinic have had a "check-up"	186 (55.2)	110 (32.6)	41 (12.2)	2.23±0.91
The data on my file are comprehensive and accurate.	181 (53.7)	61 (18.1)	95 (28.2)	2.36±0.77
At every medical visit the temperature, weight, and blood pressure are measured	243 (72.1)	79 (23.4)	15 (4.5)	2.49±0.85
The doctor provides me with a comprehensive medical examination when I need it.	256 (76.0)	36 (10.7)	45 (13.4)	2.65±0.67
The laboratory test are reported promptly	161 (47.8)	111 (32.9)	65 (19.3)	2.15±0.89
The medical staff that treats me knows about the latest medical developments.	173 (51.4)	50 (14.8)	114 (33.8)	2.36±0.73

Table 6. Satisfaction of the participants with communication with the staff at the primary health care center

	Agree N (%)	Disagree N (%)	Do not know N (%)	Mean±SD
The doctor listened to me carefully.	316 (93.8)	16 (4.7)	5 (1.5)	2.89±0.44
The doctor did not answer all my questions	68 (20.2)	263 (78.0)	6 (1.8)	2.58±0.81
Sometimes the doctor makes me feel foolish.	30 (8.9)	288 (85.5)	19 (5.6)	2.77±0.60
The doctor treats me in a very friendly and courteous manner.	298 (88.4)	24 (7.1)	15 (4.5)	2.81±0.54
The time spent with the doctor is enough	308 (91.4)	26 (7.7)	3 (0.9)	2.84±0.54

Table 7. Satisfaction of the participants with health education offered at the primary health care center

	Agree N (%)	Disagree N (%)	Do not know N (%)	Mean±SD
There are available brochures about common medical problems.	170 (50.4)	76 (22.6)	91 (27.0)	2.28±0.81
The language that used is simple and easy to understand.	201 (59.6)	43 (12.8)	93 (27.6)	2.47±0.71
The specialist gives me enough information about my health.	294 (87.2)	35 (10.4)	8 (2.4)	2.77±0.62
They explain to me the reasons for the tests, examination and treatments.	297 (88.2)	16 (4.7)	24 (7.1)	2.83±0.48
There are educational films shown in the center.	113 (33.5)	128 (38.0)	96 (28.5)	1.96±0.85
A number of awareness programs are held at the center that are appropriate to the needs of patients	145 (43.0)	107 (31.8)	85 (25.2)	2.11±0.86
I think that the center does not care about providing educational leaflets or brochures for the patient.	106 (31.5)	131 (38.8)	100 (29.7)	2.07±0.84
The specialist tells me to search the Internet to find out my health condition and how to deal with it	115 (34.1)	153 (45.4)	69 (20.5)	2.11±0.89

7. Overall

Majority of the participants agreed that the the clinic is always clean and tidy (85.1%). However only 60.8% agreed that the equipments at the clinic work properly and majority of them (81.3%) thought that the services provided in the center could be better.

Overall, the highest satisfaction score was observed regarding humaneness and communication dimensions (mean score was 2.78 out of 3) while the lowest satisfaction score was observed regarding continuity dimension (mean score was 2.24), health education dimension (mean score was 2.33) and overall dimension (mean score was 2.2). (Figure 1)

The total patients` satisfaction score ranged between 48 and 110 (out of a maximum possible score of 114. The mean±SD score was 93.15±9.93 and median (IQR) was 95 (88-99) as shown in Figure 2.

3.2. Factors Associated with Patients` Satisfaction

Female patients were more satisfied with PHC centers` services than male patients (mean ranks were 177.55 and 156.04, respectively), p=0.047. Married patients were more satisfied with PHC centers` services than singles (mean rank was 186.54 versus 111.25), p<0.001. Concerning educational level, Bachelor/above holders had the highest satisfaction score (mean rank=179.31) while those below secondary school graduated had the lowest score (mean rank=124.96), p=0.025. Retired/not working patients had the highest satisfaction score (mean rank=193.14) while students had the lowest satisfaction score (mean rank=125.73), p<0.001. Patients` age and nationality were not significantly associated with their satisfaction with PHC centers` services. (Table 9)

Table 8. Overall satisfaction of the participants with the primary health care center

	Agree N (%)	Disagree N (%)	Do not know N (%)	Mean±SD
The clinic is always clean and tidy.	287 (85.1)	11 (3.3)	39 (11.6)	2.82±0.46
The equipment at the clinic works properly.	205 (60.8)	35 (10.4)	97 (28.8)	2.50±0.68
I think the services are provided in the center could be better.	274 (81.3)	28 (8.3)	35 (10.4)	1.27±0.60

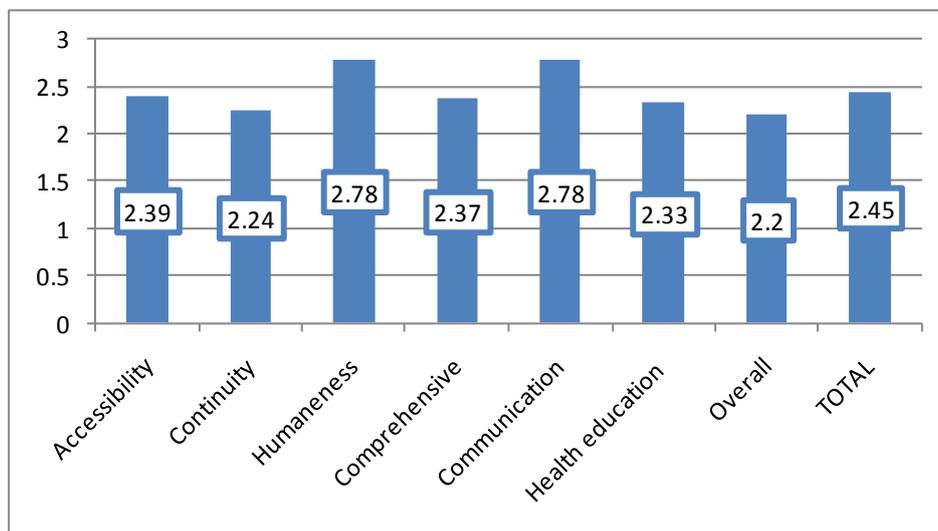


Figure 1. Score of patients` satisfaction with different dimensions of the primary healthcare centers

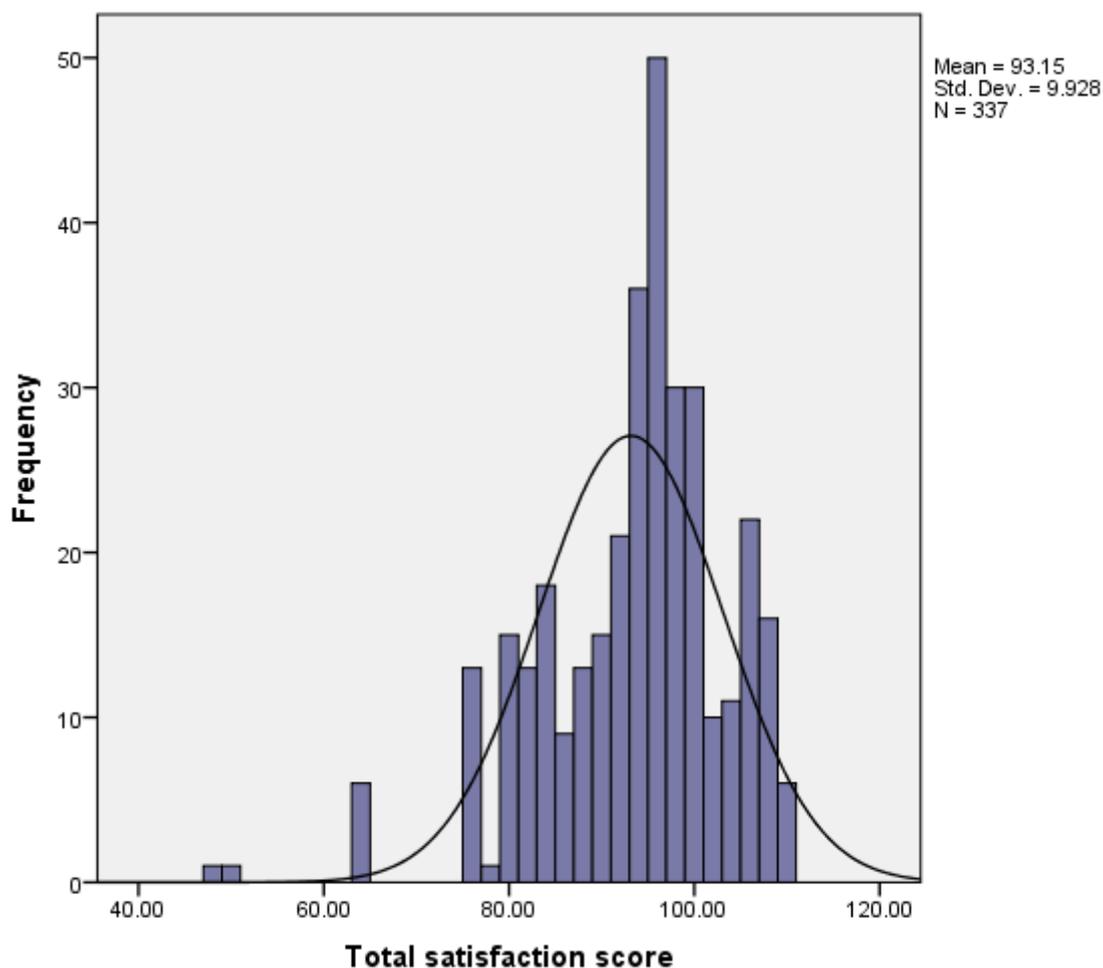


Figure 2. Total patients` satisfaction score with primary healthcare centers` services

Table 9. Factors associated with patients` satisfaction with primary healthcare centers` services, Ministry of health in Taif city.

	Score of satisfaction with primary healthcare centers` services			p-value
	Median	IQR	Mean rank	
<i>Gender</i>				
Male	93	88-98	156.04	0.047*
Female	95	86-100	177.55	
<i>Age in years</i>				
<20	90	81-99	139.83	0.063**
20-40	95	87-100	176.84	
>40	95	92-96	165.21	
<i>Marital status</i>				
Single	86	82-95	111.25	<0.001**
Married	95	92-100	186.54	
Divorced/widowed	95.5	89.25-96.75	160.59	
<i>Nationality</i>				
Saudi	95	88-99	168.41	0.505*
Others	98	94-98	190.33	
<i>Educational level</i>				
Illiterate	98	77-98	170.29	0.025**
Below secondary school	93	82-95.75	124.96	
Secondary school	95	90-98	167.58	
Bachelor/above	95	86.75-102	179.31	
<i>Job status</i>				
Student	88	81.25-99	125.73	<0.001
Governmental employee	94	84-98	149.53	
Private sector employee	95	87-106	180.38	
Retired/not working	96	93-100	193.14	

IQR: Interquartile range, * Mann-Whitney test, **Kruskal-Wallis test.

4. Discussion

Patients' satisfaction with the quality of services provided at primary healthcare centers is one of the important factors influencing the outcomes of health care and utilization of services. Therefore, identification of the level of patients' satisfaction and predictors for Unsatisfaction among patients and eliminating them will improve the quality of provided care. [17] The present study was carried out to evaluate the level of satisfaction about primary health care services among patients attending PHC centers, MOH in Taif city, Saudi Arabia as well as to determine the relationship between this level of satisfaction and socio-demographic factors of those patients.

In the current study, majority the participants were satisfied with distance of the primary care clinics from their home, the working hours of the clinic are and the ability to get medical care whenever they need it. However, they were moderately satisfied with time spent in the waiting room for a routine visit. Comparable results have been reported in similar studies carried out in Jubail city, [16] and Lebanon. [18] However; in Jubail city, patients had concern regarding the suitability of distance from home, waiting time, and absence of calling them for follow-up appointments. [16] Also, In Riyadh, the waiting time between registration and consultation was the only factor that significantly impacted overall patient's satisfaction as patients waited over 30 minutes were more likely to be dissatisfied with the service provided. [15]

Regarding continuity of care, majority of the participants in the present study were satisfied with family's vaccination needs and most of them were satisfied with ability of the doctor to access their hospital medical record easily. However, they were less satisfied with being seen by different doctors for each visit and being not contacted by the clinic if they fail to attend for a follow-up appointment as well as referred from the clinic to the hospital. Quite similar findings were observed in a study carried out in Jubail city, Saudi Arabia. [16]

In the current study and in accordance with others, [16] majority of the participants were satisfied with the way that the reception, doctors, nursing, specialist and laboratory staff at the clinic deal with them. However, they were less satisfied with the way of dealing with urgency cases by the PHC center staff.

Concerning comprehensiveness of services, most of the participants in the present survey agreed that the doctor provides them with a comprehensive medical examination when they need it and at every medical visit the temperature, weight, and blood pressure were measured. However, less than half of them agreed that the laboratory test were reported promptly. Lower rates have been reported in a study carried out in Jubail city, Saudi Arabia in this regards. [16]

Majority of patients in this study were satisfied with physicians' communication. To a lesser extent, patients reported the same in a similar study carried out in Jubail city, Saudi Arabia. [16]

Regarding health education services, majority of the patients in the present study were satisfied with the way that the medical staff explaining the reasons for the tests, examination and treatments to them and having enough information about their health from specialists. However,

they were less satisfied with the difficulty of the language that used, the number of awareness programs, presence of educational films shown in the center and providing educational leaflets or brochures for the patients. Comparable findings were reported from Jubail city, Saudi Arabia. [16]

Majority of the participants in the current study agreed that the the clinic is always clean and tidy. However only 60.8% agreed that the equipments at the clinic work properly and majority of them thought that the services provided in the center could be better. In a similar study carried out in Jubail city, [16] majority of patients were satisfied with the centres' cleaning and tidiness, but 37% only were satisfied with the work of equipments and majority of them believed that he services provided in the center could be better.

In the present study, the total patients' satisfaction score ranged between 48 and 110 (out of a maximum possible score of 114) with a mean±SD score of 93.15±9.93 and median (IQR) of 95 (88-99). In a similar study carried out in Hail, Saudi Arabia, on a scale ranged between 1 and 5, the overall satisfaction mean score was 3.60 (95% CI = 3.53, 3.67). [19] In Riyadh, 72.5% of patients were satisfied with the services provided by governmental PHC centers. [15] in Majmaah, high level of patients' satisfaction with the services provided by PHC centers was observed (81.7%). [20] In Kuwait, the overall satisfaction level was very high (mean score was 4.6 out of a maximum of 5 points). [21] In Lebanon, overall, 96.7% of patients reported being either satisfied (60.2%) or very satisfied (36.4%) with the services offered at the PHCCs. [18] In USA, the majority of patients were satisfied with their (89.0%). [22] In UK, India, Kosovo and Iraq, rates of patients satisfaction with health care were variables; being 61.3%, 66%, 73.5% and 50.9% respectively. [23,24,25,26] Comparison between these studies is actually not practical as a result of using different tools with different interpretations.

In this study, the highest satisfaction was observed regarding humaneness and communication dimensions while the lowest satisfaction score was observed regarding continuity dimension, health education dimension and overall dimension. In another Saudi study, the highest level of satisfaction was regarding the quality of the services provided by the doctors and healthcare staff whereas the lowest level of satisfaction was regarding the access to medical care and the availability of physicians. [19] In Kuwait, [21] the highest satisfaction was for pharmacy and the lowest for buildings. In Serbia, contact with health care had the strongest impact on satisfaction with PHC centers' services. [27]

Female patients in the current study were more satisfied with PHC centers' services than male patients. The same has been observed in another study carried out in Kuwait. [28] Contrary to that, other studies showed that male patients were more satisfied with PHC centers' services. [20,21,29] Others showed no gender difference. [27,30,31] It is well known that female care providers were more dedicated to work than the males counterpart, which could explain the higher satisfaction of female patients in this study.

In the present survey, married patients were more satisfied with PHC centers' services than singles. In other

studies carried out in Majmaah and Iraq, [20,26] the widowed and divorced were more satisfied than married patients and the single patients were the least satisfied with the provided PHC centers` services.

Concerning educational level, Bachelor/above holders had the highest satisfaction score while those below secondary school graduated had the lowest score. The same has been reported in a study carried out in Kuwait. [29] Contrary to that, a study carried out in urban Qassim revealed that illiterate patients were more satisfied and patients with university level of education had recorded the lowest score of satisfaction. [32] In Kuwait, [21] patients who completed primary school showed the highest overall satisfaction compared to their peers. Some investigators observed no role of educational level on patients` satisfaction. [22] Further investigation might be needed to clarify this finding.

Retired/not working patients had the highest satisfaction score while students had the lowest satisfaction score in this study. Similarly, other researchers observed association between job status and satisfaction with PHC centers` services as they found that not-employed patients were more satisfied. [32]

Patients` age was not associated with satisfaction with PHC centers` services in the present study. The same has been reported by others in Serbia, [22] others reported that older patients were more satisfied. [19,21,29,32]

In accordance with others, [27,29] patients` nationality was not significantly associated with satisfaction with PHC centers` services in this study; however, others reported that non-Saudis were more satisfied than Saudis. [32]

Cross-sectional design with its inherited limitations, inclusion of only PHC centers belonging to MOH and using a self-reported questionnaire are considered potential limitations of the present study. Despite of that, results of the present study could be utilized by decision makers to improve the situation in PHCCs, MOH in Taif city.

5. Conclusion and Recommendations

Generally speaking, patients attending primary healthcare centers, belonging to Ministry of Health in Taif were satisfied with provided services. The highest satisfaction was observed regarding humaneness and communication dimensions while the lowest satisfaction was observed regarding continuity dimension, health education dimension and majority of them thought that the services provided in the center could be better. Females, married patients, those with higher education, retired/not working patients were more satisfied with PHC centers` services than their counterparts.

Based on the study`s findings, the following are recommended

- Special attention should be given to male departments of PHC centers to improve satisfaction of male patients regarding provided services
- Problems of relatively long waiting time, seeing by different physicians each time, not calling patients in case of failure to attend appointments, unavailability of awareness programs, educational

films and educational leaflets or brochures for the patients at the centers should be taken into consideration by directors of the centers

- Raising the main findings of this study to decision makers to help them in putting a plan for improvement, particularly regarding continuity of care and health education.
- Primary healthcare staff should be trained in dealing with urgency cases, through Continuous medical education activities.
- Further study is recommended to include patients attending PHC centers belonging to disciplines in Taif and not only MOH

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