

## **Patients' Satisfaction with Primary Health Care Centers' Services, Majmaah, Kingdom of Saudi Arabia**

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### **Abstract**

**Background:** PHC Patient' 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.

**Methodology:** The study was 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.

**Results:** 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 centers services and the respondents' level of education.

**Conclusion:** The level of satisfaction with the services provided by PHC centers in Majmaah is high. The gender, marital status and income have no effect on the level of satisfaction with the services provided by PHC centers. 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.

**Kew words:** Patients, Satisfaction, Primary health care centers.

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## Introduction

Patients' satisfaction has long been considered as an important component when measuring health outcome and quality of care in both developed and developing countries<sup>(1)</sup> and constitutes a significant indicator of the health care quality.<sup>(2)</sup> Literature showed that satisfied patients are more likely to develop a good relationship with the health system, leading to improve compliance, continuity of care and ultimately better health outcome.<sup>(3)</sup> Identification of patient' needs and assessment of the health services provided is the starting point of a patient cent red approach in providing health care.<sup>(4)</sup> Therefore, patients' satisfaction is considered as an important measure to evaluate the quality of health services and can predict both compliance and utilization.<sup>(5)</sup> The function of health care services is to improve the health status of the population<sup>(6)</sup> so the stakeholders in health are conscious about the reforms in the healthcare system globally in order to enhance patient satisfaction with healthcare services,<sup>(7)</sup> so the restructuring of health systems running all over the world concentrated on the ways to increase patients' satisfaction.

A better appreciation of the factors pertaining to client satisfaction would result in implementation of custom made programs according to the requirements of the patients, as perceived by patients and service providers.<sup>(9)</sup> The patients are the best judge since they accurately assess the services provided and their inputs help in the overall improvement of quality health care provision through the rectification of the system weaknesses by the concerned authorities.<sup>(10)</sup>

Across the United States of America and Europe, consumer satisfaction is playing an increasingly important role in quality of care reforms and health-care delivery more generally. However, consumer satisfaction studies are challenged by the lack of a universally accepted definition or measure.<sup>(11, 12)</sup> The overall satisfaction with the health services in the European Union countries was positive in all but five countries, more than half of the respondents reported feeling "very satisfied" or "fairly satisfied" about the provided health services.<sup>(13)</sup>

Fomba et al found a high level of satisfaction in community health care centers in the district of Bamako although the quality of

services was not satisfactory.<sup>(14)</sup> In a study conducted in Thi-Qar, Iraq almost half of the respondents were dissatisfied with the health care services provide for them and high dissatisfaction rate was associated with low education, unemployment,<sup>(15)</sup> male gender, and being single.<sup>(16)</sup> Concerning the gulf region, a study was conducted in the primary health care centers in Qatar found the overall satisfaction was relatively low.<sup>(17)</sup>

In Saudi Arabia, the MOH provides health services at the primary, secondary and tertiary levels. PHC centers provide promotive, preventive and curative primary care services. The cases that require more advanced care are referred to public hospitals (the secondary level of care), while cases that need more complex levels of care are transferred to central or specialized hospitals (the tertiary level of health care). The MOH provides health services through 244 hospitals (33,277 beds) and 2037 primary health care (PHC) centers. These services comprise 60% of the total health services in the country.<sup>(18)</sup>

Although patients' satisfaction is an important element of the quality of health care, however, few studies to assess patient' satisfaction in Saudi Arabia have been undertaken in the last few years. A study was conducted in Riyadh, Kingdom of Saudi Arabia to estimate satisfaction of patients about PHC services found that the level of satisfaction was relatively low and results identified areas in which quality improvement is required, mainly accessibility and continuity of care.<sup>(19)</sup> In studies conducted in Hail and Riyadh in Saudi Arabia, the respondents reported their highest level of satisfaction for the quality of the services provided by the doctors and staff,<sup>(20)</sup> were generally satisfied about the care provided.<sup>(21)</sup>

The current study aimed to determine the level of satisfaction of patients attending PHC centers in Majmaah in the Kingdom of Saudi Arabia; to determine the relation between level of satisfaction and the socio-demographic characteristics of the respondents and to verify the reasons behind satisfaction or dissatisfaction along with the opinion of patients about how to improve satisfaction about the services provided.

### Methodology:

The design was cross-sectional facility-based study of patient's satisfaction with health care services provided by primary health care center in Majmaah, Kingdom of Saudi Arabia. Majmaah city is located about 180 km north of the capital city Riyadh with a population of 60,000 persons. <sup>(22)</sup> The health services in Majmaah are provided by King Khalid hospital, which is the only public hospital in the city, and eleven primary health care centers besides three private hospitals. The patients who attended the centers of both sexes and all ages were included while the visitors to the city and non-Saudi patients were excluded from the study.

Selection of the primary health care centers was done by stratified random sampling. Stratification was done according to the patients' load of the centers. Four out of the eleven PHC centers in the city were selected, two with high and two with low number of patients. The selection of patients within the selected PHC center was done by systematic sampling. The interval was computed by dividing the estimated average number of patients attending the center per day over the number of the sample decided to be taken in the same day. The sample size was calculated as follow:

$$n = Z^2 \times pq / d^2$$

n= sample size, Z: standard normal deviate

=1.96, p (the prevalence) =0.6, q=1- p= 0.4, d:

error accepted=0.05 [19].

The sample size= 370 patients.

The data was collected through a pre-coded and interviewer-administered questionnaire. The medical students of Collage of Medicine, Majmaah University collected the data. The questionnaire was translated to Arabic language to facilitate the communication with the respondents and was back translated before the start of data collection. The questionnaire included Socio-demographic data (age, gender, marital, literacy, occupation, and income), level of satisfaction with the provided services, reasons behind satisfaction and the opinion of respondents about how to

improve the health services. For assessing satisfaction, a validated patients' satisfaction questionnaire was adapted from a questionnaire designed to assess satisfaction among patients attended the health centers in Ethiopia. The parts included from the original questionnaire were: assessment for consultation and relational empathy; perceived technical competency; perceived suitability of the environment and privacy issues. <sup>(23)</sup> Patients were asked 20 questions to rate satisfaction on different aspects of care delivery. Each question was scored on an ordinal scale as: very satisfied, satisfies, neutral, unsatisfied and very unsatisfied. All twenty items taken together yield a maximum score of 100 and a minimum of 20. Higher score on each item indicates higher level of satisfaction. Later the very satisfied and satisfies were combined as satisfied, the unsatisfied and the very unsatisfied were combined as unsatisfied. Since the objective in health services is to attain complete satisfaction, we sought particularly to ascertain the proportion of respondents who stated neutral level of satisfaction being considered unsatisfied.

The reliability of our study questionnaire was (Cronbach's alpha = 0.751). Training of data collectors regarding questionnaire was done. The questionnaire was pre-tested in Majmaah center which was not included in the sample. Data were edited in the field and the office as long as cleaned to remove discrepancy by the authors. The SPSS for Windows software, version 21 (SPSS, Chicago, Illinois USA) was employed to analyze the data. Descriptive statistics were used. Comparisons between qualitative variables were made using the chi-square, to test significance and  $p < 0.05$  was considered significant. The ethical approval was obtained from the ethical committee Majmaah University. An informed consent was obtained from the participants. The data were kept confidential and used only for the purpose of this study.

### Results

All the respondents agreed to participate in this study giving response rate as 100%.

Table 1 shows the level of satisfaction about PHC centers' services in Majmaah city. The Satisfied respondents were 277 (81.7%)

and the unsatisfied were 68 (18.3%). Table 2 shows the reasons behind satisfaction of the respondents about PHC centers' services. The respondents were asked close ended questions to choose the most important single reason for satisfaction. Based on the literature the reasons given were cleanliness, technical competencies of staff, respect and good handling good services. Other was also added to give respondents a chance to add more responses. The first reason behind satisfaction was the cleanliness of the centers (33.1%). Other reasons were good staff 73 (24.2%), respect and good handling 70 (23.2%), good services 25 (8.3%). Other reasons behind satisfaction constituted 11%.

The association between level of satisfaction and social factors was shown in table 3. Males (84.3%) were satisfied more than females (79.8%) about PHC centers' 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 centers' services while 93 (76.2%) of the single and 23 (85.2%) of the

widow/divorced were satisfied about PHC centers' services. The low, the average and the high income respondents were satisfied with the PHC centers' services as 82.2%, 76.3% and 74.4% respectively.

Table 4 shows opinion of patients about how to improve satisfaction about PHC services. The responses regarding opinion of the respondents about how to improve satisfaction was done by a close ended question. The responses were: provide suitable buildings, increase nursing staffs of PHC center, provide dental services, provide public health education, provide advanced equipment and provide specialized doctors. Other was added if the respondents had more suggestions. Almost one third of respondents (29.8%) saw that improvement come through provision of suitable buildings. Fifty respondents (21.9%) suggested to increase staffs of PHC centers, forty four (19.3%) to provide dental services, twenty six (11.4%) to provide public health education, sixteen (7%) to provide advanced equipment and increase doctors of PHC centers.

**Table 1. Level of satisfaction of respondents about PHC services in Majmaah (Physicians, other health personnel and the provided services)**

Level of satisfaction	Frequency	Percent
Satisfied	302	81.7%
Unsatisfied	68	18.3%
Total	370	100%

**Table 2. Reasons behind satisfaction of patients about PHC centers' Services in Majmaah**

Reasons behind satisfaction	Frequency	Percent
Cleanliness	100	33.1%
Technical competencies of staff	73	24.2%
Respect and good handling	70	23.2%
Good Services	25	8.3%
Others	34	11.2 %
Total	302	100%

**Table 3. Association between level of satisfaction and socioeconomic factors**

Level of satisfaction Social factor	Satisfied	Not satisfied	Total	p
	No. (%)	No. (%)		
Gender:				
Male	145(84.3%)	27(15.7%)	172	0.410
Female	158(79.8%)	40(20.2%)	198	
Total	303(81.9%)	77(18.1%)	370	
Education:				
Primary	56(95.6%)	12(4.4%)	68	0.014
Intermediate	74(88.1%)	10(11.9%)	84	
Secondary/high	180(82.6%)	38(17.4%)	218	
Total	310(83.8%)	60(16.2%)	370	
Marital status:				
Married	187(84.6%)	34(15.4%)	221	0.18
Single	93(76.2%)	29(23.8%)	122	
Divorced/widow	23(85.2%)	4(14.8%)	27	
Total	303(81.9%)	67(18.1%)	370	
Monthly income/ SR:				
Low (Less than 5000)	175(82.2%)	38(17.8%)	213	0.39
Average(5000-10,000)	90(76.3%)	28(23.7%)	118	
High (More than 10,000)	29(74.4%)	10(25.6%)	39	
Total	294(79.5%)	76(20.5%)	370	

**Table 4. Opinion of patients about improvement of PHC services satisfaction**

Opinions of patients about improvement	Frequency	Percent
Provide suitable buildings	68	29.8%
Increase nursing staffs of PHC center	50	21.9%
Provide dentist clinic	44	19.3%
Provide public health education	26	11.4%
Provide advanced equipment	16	7%
Provide specialized doctors of PHC centers	16	7%
Others	8	3.5%
Total	228	100%

### Discussion

The current study aimed at determining the level of patients' satisfaction with Primary Health Care Centers' services in Majmaah, Saudi Arabia. The level of satisfaction with the services provided by PHC centers was high (81.7%). These findings are higher than satisfaction of care of patients in London, India, Kosovo and Iraq where satisfaction with health care were 61.3%, 66%, 73.5% and 50.9% respectively.<sup>(24,25,26,27)</sup> This is also higher than the finding from Riyadh (64.2%) in Saudi Arabia.<sup>(19)</sup> The patients' satisfaction in this study was lower than findings from Kuwait.<sup>(28)</sup>

The reasons behind high level of satisfaction may be partly due to the fact that Majmaah is a city with small population which is represented in relatively small number of patients attending the PHC centers, which in turn enable health care providers to provide satisfactory health services for patients. This small number of patients also facilitates good ties and relations between the care providers and the patients. The health care provision policy adopted by the kingdom which is based on the catchment areas also helps in strengthening this relationship. The most important factor that drives patients' satisfaction is the cleanliness, technical competencies of the staff of PHC centers and

good handling. This is in line with the finding of Weber ES et al and Merkouris et al.<sup>(29, 30)</sup>

The reasons behind high level of satisfaction were cleanliness, competence of the staff along with respect and good handling. These findings are in line with other studies conducted in Saudi Arabia.<sup>(20, 21)</sup>

The study showed that the respondents who acquired primary education were more satisfied with the provide PHC services, followed by the intermediate education.<sup>(31)</sup> The highly educated were the least satisfied with the PHC centers' services. The relation between level of satisfaction and education is significant ( $p=0.014$ ). These findings are in line with results from Riyadh, Saudi Arabia.<sup>(19)</sup> Males were more satisfied than the females about the provided PHC centers' services. This finding contradicts a study conducted in Kuwait where females were more satisfied with the health services provided than the males.<sup>(28)</sup> This finding is also not in line with the findings of Stephen et al who found that males and females had the same level of satisfaction about the provided services.<sup>(19,31)</sup> Although the female care providers were more dedicated to work than the males counterpart. However, the high level of satisfaction among the males may be due to the fact that the work load and the staff turnover in the male side was less compared to the female side.<sup>(32)</sup>

The widowed and divorced were more satisfied about the provided PHC centers' services followed by the married. The single respondents were the least satisfied with the provided services.<sup>(27)</sup> Regarding the monthly income, those with low income were most satisfied followed by those with average income. The least satisfied respondents about PHC services were the higher income sector. These results are in agreement with findings from Kuwait.<sup>(28)</sup> This may be due to the fact that patients with high income can seek health care at specialized centers and the private sector elsewhere in the kingdom. There is no association between patients' satisfaction and gender, marital status and average monthly income.<sup>(19)</sup>

### Limitations

In this work we relied on self-reports from respondents speaking for themselves or their children may have introduced surrogate bias. Since respondents showing their experience this time and sometimes ago, this may introduce recall bias as well.

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### Conclusion

The level of satisfaction with the services provided by PHC centers in Majmaah is high. The gender, marital status and income have no effect on the level of satisfaction with the services provided by PHC centers; however, the lower 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. Areas in which quality improvement is required, mainly provision of suitable buildings, increasing number of nurses and providing dental services were identified.

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