



Dr. Mai Abdulaziz AlDhamadi

Family Medicine Resident

Dr. Fayed Abdullah AlZahrani

Consultant Family Medicine

ABSTRACT OBJECTIVES The purpose of this study is to explore the community's perceptions and knowledge of and attitudes toward family medicine and the PHCs' services in the Eastern Province of Saudi Arabia, and to discover some of the reasons behind not attending the PHCs as the first choice to address a medical issue. MATERIALS AND METHODS A cross-sectional study was done in Dammam and Al-Khobar cities, Saudi Arabia. 382 randomly selected Saudi subjects were surveyed. Data were collected via a digital mobile-based survey and entered by the data collectors. SPSS version 25 was used to analyze the data. RESULTS Only 54% of the study population agreed to attend the PHCs as their first choice to address a medical issue. 72.3% of the respondents deemed the ED as a more important specialty than family medicine. The participants' attitudes were influenced by their age, education, and occupation. CONCLUSIONS Acceptable perceptions, knowledge, and attitudes about family medicine and its role were noticed among the Saudi community in general. Public awareness campaigns are recommended to optimize full utilization of the PHCs' services.

KEY WORDS : Family medicine , PHC, Ministry of Health (MOH), KFSH-D

Introduction/Literature Review

Family medicine is the medical specialty that can actually fulfill the goal of the primary healthcare system, which, according to the World Health Organization, is 'better health for all'.¹ The American Academy of Family Physicians defines family medicine as 'the medical specialty which provides continuing, comprehensive healthcare for the individual and family. It is a specialty in breadth that integrates the biological, clinical and behavioral sciences. The scope of family medicine encompasses all ages, both sexes, each organ system and every disease entity'.²

In February 1969, family medicine was first recognized as a primary medical specialty in America.³ Primary healthcare centers (PHCs) are the cornerstone of the healthcare system as it was first introduced internationally in 1978, when the Declaration of Alma-Ata was issued by global healthcare leaders.

In most countries, primary healthcare physicians compose the infrastructure for the healthcare system by serving as gatekeepers, connecting specialties, and offering continuous care for patients and their families. Research indicates that primary care is the most cost-effective.^{4,5,6}

Today, America's family physicians deliver the majority of healthcare to both rural and urban communities. Actually, family physicians are more widely spread throughout the United States than practitioners of any other medical specialty.⁷

About 80% of Canadians have designated family physicians as their first healthcare providers to approach when declaring their medical problems.⁸ More than 66% of them are convinced that family medicine is the most significant medical profession they seek.⁹

In 2004, a study was conducted in Pakistan documenting the perceptions of family medicine among patients visiting specialist physicians for treatment; more than half of the patients indicated that family physicians are fundamental to the healthcare system, and 80% of them believed that the healthcare system would not function well without specialist physicians.¹⁰

In 2009, a systematic review of the prevalence of inappropriate

emergency services utilization by adults and accompanying factors was carried out. This study revealed a prevalence that varied from 20% to 40%, in which age and financial status were the main associates. It has been found that factors such as females with no primary diseases, patients with no regular follow-ups with a certain physician, and patients with no specific healthcare source are the ones that contribute most to inappropriate utilization of the ED (emergency department). Moreover, there were other difficulties concerning making appointments, longer waiting time, and short working hours at the PHC.¹¹

As in other nations, here in Saudi Arabia, inappropriate utilization of the ED is a huge issue. Most of the patients in a military hospital ED presented with minor self-limiting complaints like respiratory tract infection, mild conjunctivitis, allergic rash, medication refill, minor burns, and gastrointestinal tract problems. The rush hour was mostly during the night.¹²

A study was conducted in Jeddah assessing emergency services utilization at three large governmental hospitals. The study indicated a significant proportion of non-urgent cases, with the following associated factors: young, non-married, and low-income. A very high proportion of patients visited the ED three to four times per year and not fewer than six times in a year for non-urgent cases. A large proportion of patients did not attempt to visit an outpatient clinic before presenting to the ED. Most patients attributed their attitude to the difficulty of setting appointments with a specialist due to overcrowding. Also, most patients have good knowledge about the services of PHCs; however, they would not seek their help because of the negative perception of PHCs. Inappropriate utilization of the ED led to congestion and increased waiting times of almost three hours.¹³

On the other hand, private specialist clinics also play a tremendous role in providing primary care here in Saudi Arabia, as they receive a significant proportion of patients. According to Al-Ghanim, the closeness of PHCs did not really matter to patients who preferred the private outpatient clinics, in comparison to those who attended public PHCs.¹⁴ When Saeed explored the factors influencing the patients' choice of healthcare provider, he found that patients preferred to have an Arabic-speaking, Muslim, experienced

***Corresponding Author** Dr. Fayed Abdullah AlZahrani

Consultant Family Medicine

physician as their primary care provider. The study showed that free services with a nearby PHC location are also an important factor.¹⁵ This shows that there is a part of the population who would rather travel longer so they can satisfy their demands.¹⁴

In 2015, a study was conducted by Tariq Ali M Alzaied and Abdurrahman Alshammari in Riyadh for the evaluation of the current status of PHCs in the eyes of the Saudi community living there. More than 70% stated that their visits were at least good, but unfortunately, and as presumed, the majority of the population would not select a PHC as their first-line healthcare provider. Only 25.52% would select it as their first choice.¹⁶ However, in 1993, Ali and Mahmoud found completely the opposite results, showing that 60% were satisfied with the services provided by the PHC, among whom 74.7% stated that it was their first choice. Those who were unsatisfied with the services also gave the same response.¹⁷

The two main reasons behind the poor utilization of the PHCs were (a) lack of variety of specialties and (b) doubting and mistrusting the physicians' services. Other reasons were medication prescription errors. Notably, a PHC's office hours and location did not make a difference to the population studied.¹⁶

Saudi Arabia is a developing country that makes significant efforts to promote health in its community. Also, it sets primary healthcare as one of its important areas to continuously develop.¹⁸ Healthcare services in Saudi Arabia are provided via three providers: the Ministry of Health (MOH), other governmental healthcare providers, and the private sector. The MOH is the main provider, with a significant number of healthcare institutions spread all over the country.¹⁹ According to the Health Statistics Annual Book, in 2012, there were 2,259 PHCs throughout Saudi Arabia.²⁰

The objective of the current study is to determine the Saudi community's perceptions and knowledge of and attitudes toward family medicine and its role in PHCs in the Eastern Province of Saudi Arabia.

Materials and Methods

This study is a quantitative cross-sectional survey that was conducted on the community of the Eastern Province, Saudi Arabia. The research was carried out between the months of November 2017 and May 2018. A simple random sampling technique was used, and participants were all Saudis and at least 18 years of age.

In the months of February and March 2018, the Ministry of Health – General Directorate of Health Affairs ran two public health campaigns in two different shopping malls of the same region, Al-Rashed mall in Al-Khobar city and Al-Othaim mall in Dammam city. The data were collected through these campaigns after getting permission from the head of the Directorate of Health Affairs.

The study questionnaire was a digital mobile-based survey and was filled by trained data collectors. It included an invitation letter that was introduced to the campaigns' visitors. They were recruited and asked to read it prior to answering the questions. Another visit was to the employees of the Ministry of Health – Educational Supervision Office, who were also introduced to the questionnaire.

The questionnaire was generated after reviewing the articles of both Huda et al.¹⁰ and Alzaied et al.¹⁶ It was written in English first, then translated from English to Arabic through an accredited translation office (TransOrient), and the Arabic version was used to conduct this study. Then it was translated back into English. Both versions were validated by three family consultants.

After that, the questionnaire was piloted with the help of the head biostatistician in King Fahad Specialist Hospital-Dammam (KFSH-D). The questionnaire was given to 20 participants to assess their understanding, the questionnaire's feasibility, and the time needed for completion. Then, the study was approved by the Institutional

Review Board at KFSH-D.

The sample size was calculated using the RAOSOFT website; the margin of error is 5%, and the confidence interval is 95%. Considering a total population of 20,000+, an estimated sample size of 377 was needed.

The data were transferred to SPSS software version 25. In this study, the frequency tables are drawn in a manner that explores the findings as percentages and as measures of central tendencies and dispersion. Cross-tabulation ANOVA tables were made. The cut-off point of significance in all statistical tests is a p-value of 0.05.

Results

This study was conducted with a total of 382 Saudi participants who lived in the Eastern Province of Saudi Arabia. The participants were asked to share their impressions of previous visits to family physicians in primary healthcare centers (PHCs), compared to hospital doctors of other specialties. The study participants were 80.6% females and 19.3% males, with a mean age of 36 years. Almost 60% of the participants held a bachelor's degree, whereas 28% had a secondary school certificate, 6.8% had higher education, and 5.5% had other degrees. As for the respondents' occupations, 23.3% worked in the education system, 22.3% were housewives, 12.6% were students, 11.5% worked in the private sector, and 7.3% were unemployed (see tables 1–4).

In the survey, the respondents were asked about the characteristics of the family physicians they had met before; most of the respondents agreed that family physicians were friendly, trustworthy, and knowledgeable. Also, the respondents agreed that family physicians listened carefully to their complaints, were more familiar with their family history, and were available when needed; they could treat general problems, were able to treat the whole family, and were tolerant and patient (see tables 5–9, 13–16, and 18). Fifty-one percent of female respondents agreed that family physicians performed full physical examinations, unlike 43.2% of male participants, who disagreed. Only 49% of females and 33.8% of males agreed that family physicians could make accurate and fast diagnoses. According to 74.7% of female respondents and 62% of males, family physicians provided advice and education. Only 62% of females and 52.7% of males agreed that family physicians provided an overall good quality of care (see tables 57–59 and 66). When asked about their impressions of previous visits to the PHCs, two-thirds of the respondents agreed that the primary healthcare centers had good locations. Only 38.2% of the respondents agreed that the clinics' procedure rooms and pharmacies were fully equipped, whereas 36.4% disagreed and 25.4% were neutral. It is also worth noting that two-thirds of the respondents were not content with the condition of the equipment (see tables 20, 23, and 24).

Only 52% of the respondents thought that PHCs had available parking. As for the quality of the PHC buildings, almost 46% of females and almost 40% of males were not pleased (see tables 21 and 69).

Discussion

This study was conducted to study the reasons behind unnecessary visits to the ED or other private specialist clinics and hospitals.

One of the survey scenarios was about the participants' first choice when having chest pain, in which 42.1% of the respondents stated that they would visit the ED, 35.6% of the respondents preferred to visit the specialist clinics, and the remaining participants would visit the PHC. Chest pain could have several benign, simple causes, all of which could be ruled out at a PHC. Unfortunately, there were also other health condition scenarios where the ED was the respondents' first choice, even though it could be perfectly handled at a PHC, such as a case of an asthma exacerbation and gastroenteritis for two days. A very high percentage of the study population believed the ED has a more important role in the healthcare system than the family

medicine department. Thus, it is necessary to improve the population's attitude toward the utilization of the ED versus the PHCs and to raise the awareness of the consequences of attending the ED for non-urgent complaints.¹¹ A notable proportion of the population actually thought that the ED was the first place to attend to address their problems.¹³

On the other hand, there are scenarios where the ED is chosen correctly, like having an RTA, a dog bite, a hypersensitivity skin reaction with shortness of breath and angioedema, a painfully swollen single leg, and inhaling smoke after a house fire. This denotes that obvious emergency conditions are clear enough to most of the study population.

A very important finding is that when the study population was asked about making the PHC their first choice to address a medical issue, 53.7% of the population answered 'yes', while 33.2% of the study population replied 'no'; however, the remaining 13.1% replied with 'yes' but still added reasons for being unsatisfied with the provided services. These numbers indicate that most of the population would choose the PHC but are not satisfied with the services provided to them. These results are similar to those of Ali and Mahmoud from 1993¹⁶ and different than those of Alzaied's study,¹⁷ in which only 25.52% stated that the PHC would be their first choice.

Conclusions and Recommendations

It was observed that around one-third of the population replied that they would not visit the PHC as their first choice for several reasons. Also, most of the population was generally dissatisfied with the PHCs' services.

Unfortunately, most of the population chose the ED over the PHC as more important and essential in healthcare system delivery. There were several misconceptions about when to visit the ED versus the PHC, and there are a lot of other studies that show the huge inappropriate utilization of the ED in Saudi Arabia and in other countries.

Only 60% of the population agreed that the PHCs generally provided good-quality care in general.

Ultimately, this clearly enlightens us about the importance of raising awareness and giving recommendations for stakeholders and decision makers to:

The PHCs buildings and infrastructure need to be improved to fulfill its services and work flow. It has to be unified all over the country to serve its best utilization. The PHC building and landscape design have to be well studied to suit the requirements needed for attracting patients to revisit the facility again. This also will create a better work environment which will improve staff productivity for the long run.

An adequate expanding of staffing is very important to attain an acceptable amount of patients with minimum waiting hours and to provide proper and deserved session time for each patient; This will optimally avoid crowdedness. Proper staffing also maintains staff well-being. An accessible, coordinated and comprehensive care must be offered, in order to deliver a patient centered medical care. This can be achieved through the presence of a complete primary healthcare team.

Resources and medical equipment must be provided on a monthly basis for each facility.

Motivating the PHCs' staff through conferences and workshops that spreads the significance of updating their knowledge, improving their communication skills, working in harmony, elevating their time management skills, and elevating the overall quality assurance

by the use of customer feedback surveys.

Promoting educational awareness campaigns and targeting the community in order to utilize family practice to its optimal potential. This can be achieved through programs that raise awareness of family medicine and highlight the significance of exploring its various aspects, as family medicine provides a wide range of health services for the whole community. This will ensure a cost-effective healthcare system that meets the expectations of our 2030 vision here in Saudi Arabia. Furthermore, it is recommended that more future studies be done to improve and measure the success and progress of the PHCs' services.

Tables

(A) Descriptive statistics of the study population:

Age			Statistic	Std. Error
	Mean	95% Confidence Interval for Mean	35.6675	.55699
		Lower Bound	34.5724	
		Upper Bound	36.7627	
		Median	34.0000	
		Variance	118.511	
		Std. Deviation	10.88629	
		Minimum	18.00	
		Maximum	64.00	
		Range	46.00	

Table 1: Age of the study population.

	Frequency	Percent	Valid Percent	Cumulative Percent
	F	308	80.6	80.6
	M	74	19.3	19.3
	Total	382	100.0	100.0

Table 2: Gender of the study population.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary School	107	28.0	28.0
	Bachelor	228	59.7	87.7
	Higher education	26	6.8	94.5
	Other	21	5.5	100.0
	Total	382	100.0	100.0

Table 3: Education of the study population.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Admin	10	2.6	2.6
	Education sector	7	1.8	4.5
	Government Employee	13	3.4	7.9
	Health Profession	7	1.8	9.7
	Housewife	85	22.3	31.9
	Military	5	1.3	33.2
	Un employed	28	7.3	40.6
	Other professions	9	2.4	42.9
	Private	44	11.5	54.5
	Retired	23	6.0	60.5
	Student	48	12.6	73.0
	Teacher	82	21.5	94.5
	Technician	21	5.5	100.0
	Total	382	100.0	100.0

References

1. World health organization: Health topics: Primary healthcare:

http://www.who.int/topics/primary_health_care/en/

2. American academy of family physicians: About: Definition of family medicine: <http://www.aafp.org/about/policies/all/family-medicine-definition.html>
3. American Academy of Family Medicine: History of the Specialty: <https://www.theabfm.org/about/history.aspx>
4. Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q*. 2005;83(3):457–502.
5. Baicker K, Chandra A. Medicare spending, the physician workforce, and beneficiaries' quality of care. *Health Aff (Millwood)*. 2004;23:w184–97.
6. World Health Organization. The world health report 2008: Primary care now more than ever. Geneva (Switzerland): WHO; 2008.
7. American academy of family physicians: About: Family medicine specialty: <http://www.aafp.org/about/the-aafp/family-medicine-specialty.html>
8. Statistics Canada. Access to Health Care Services Survey, 2001
9. Decima public poll (CFPC, Oct 2003).
10. Huda SA, Samani ZAA, Qidwai W. Perception about family physicians: Results of a survey of patients visiting specialist clinics for treatment. *J Pak Med Assoc*. 2004;54(11):589–92.
11. Carret MLV, Fassa AG, Domingues MR. Inappropriate use of emergency services: A systematic review of prevalence and associated factors. *Cad Saude Publica [Internet]*. 2009;25(1):7–28. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/19180283>
12. Siddiqui S, Ogbeide DO. Utilization of emergency services in a community hospital. *Saudi Med J [Internet]*. 2002;23(1):69–72.
13. Dawoud SO, Ahmad AMK, Alsharqi OZ, Al-Raddadi RM. Utilization of the emergency department and predicting factors associated with its use at the Saudi Ministry of Health general hospitals. *Glob J Health Sci [Internet]*. 2015;8(1):90–106. Available from: [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4803979](http://www.ncbi.nlm.nih.gov/pubmed/26234993%5Cnhttp://www.ncbi.nlm.nih.gov/pmc/articles/PMC4803979)
14. Al-Ghanim SA.– Factors influencing the utilisation of public and private primary health care services in Riyadh city. *JKAU: Econ & Adm*. 2004;19:327.
15. Saeed AA, Mohamed BA.– Patients perspective on factors affecting utilization of primary healthcare centers in Riyadh, Saudi Arabia. *Saudi Med J*. 2002;23:12371242.
16. Ali M El-S, Mahmoud ME.– A study of patient satisfaction with primary healthcare services in Saudi Arabia. *J Community Health*. 1993;18:4954.
17. Alzaied TAM, Alshammari A. An evaluation of primary healthcare centers (PHC) services: The views of users. *Heal Sci J*. 2016;10(2:15):1–8.
18. Al-Ahmadi H, Roland M.– Quality of primary healthcare in Saudi Arabia: a comprehensive review. *Int J Qual Health Care*. 2005;17:331346.
19. Jannadi B, Alshammari H, Khan A, Hussain R. Current structure and future challenges for the healthcare system in Saudi Arabia [online]. *Asia Pacific Journal of Health Management*. 2008;3(1):43–50. Available from: <http://search.informit.com.au/documentSummary;dn=426956885024415;res=IELAPA>
20. Kingdom of Saudi Arabia, Ministry of Health. Statistical Report. Riyadh; 2006. p.117
21. Al-Khalidi YM, Al-Ghamdi EA, Al-Mogbil TI, Al-Khashan HI. Family medicine practice in Saudi Arabia: The current situation and proposed strategic directions plan 2020. *J Fam Community Med*. 2017;24:156–63.
22. Kingdom of Saudi Arabia, Ministry of Health. Statistical Report. Riyadh; 2015. pp.37–39.