Public Awareness and Utilization of the Primary Health Care Services in Al-Madinah, Saudi Arabia

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Abstract

Objectives / Background: The presence of PHC alone is not enough to guarantee the utilization of provided services; the level of awareness can affect the use of these services. This study has assessed the awareness level and addressed various factors that could encourage or discourage patients to utilize PHC in Al-Madinah.

Method: A cross-sectional, descriptive, community-based study was conducted from January to March 2018 through a self-administered questionnaire. The questionnaire included questions about sociodemographic characteristics and assessed the awareness and utilization of PHC services in Al-Madinah. Data were collected from 481 randomly sampled individuals.

Results: More than 80% of the respondents were aware of the existence of a PHCC in their district. Nonetheless, 30.7% of them never utilized PHC services. The most known services provided by PHC were immunization (79%), referral to secondary/tertiary hospitals (60%), and follow-up for children's health (54.3%). However, other services fell behind in awareness, such as anti-smoking clinics (11.2%) and community psychiatric clinics (5.8%). The utilization of PHCCs was significantly associated with age, sex, marital status, occupation and general health status. The main reason encouraging respondents to utilize PHCCs was the short distance between the place of residence and the PHCC location (54.1%), while the main reason for not using PHC was dissatisfaction with services (38.3%).

Conclusion: Regular assessment of patient satisfaction and patterns of utilization is important to promote the quality of PHC services. Also, to maximize PHC utilization, collaborative efforts from PHC staff, the government, and the Al-Madinah community are needed.

Key words: Awareness, Utilization, Primary Health Care, services, Al-Madinah.

Introduction

Primary health care (PHC) is the cornerstone of the health care system (1). It delivers health care to all people and provides health promotion, disease cures, and prevention(2). In addition, it is considered to provide access to secondary and tertiary health care(3). In Saudi Arabia, the PHC program was established in 1983 based on the World Health Organization (WHO) concept that states "Health for all" according to the "Alma Ata" declaration (Sep. 1978)(2). Over time, PHC has been given high priority by the Saudi government(4). According to the Ministry of Health (MOH) in Saudi Arabia, there were 2,325 PHC centers (PHCCs) distributed throughout the Kingdom in 2016. About seven percent (162) of these centers are located in the Al-Madinah region(5). This advancement in PHC services has improved the health indicators, but that is not the only factor. Increased community health awareness and better public education has also contributed to this improvement. Thus, public awareness of these services is essential to achieve PHC goals(6). Research based-evidence should be carried out to identify the level of population awareness regarding PHC services. Moreover, the level of awareness can affect the utilization of these services. A few studies have discussed patient satisfaction with PHC services or their utilization in some cities in Saudi Arabia, but none have mentioned public awareness regarding PHC services in Al-Madinah Al-Munawarah (northwest Saudi Arabia) or in other regions of Saudi Arabia. In this cross-sectional study, the researchers aimed to assess the awareness and utilization of PHC services in the city of Al-Madinah.

Methodology

Ethical approval for this study was obtained from the Medical Ethics Committee of Taibah University in Al-Madinah. A descriptive, cross-sectional study was conducted between January 1st, 2018 and March 1st, 2018 on adult citizens who lived in Al-Madinah, Saudi Arabia. In this study, data were collected by a self-administered questionnaire. The questionnaire sought health status information and socio-demographic data consisting of age, gender, marital status, occupation, and educational level. Also, the questionnaire included other questions assessing the awareness and utilization of PHC services in Al-Madinah by assessing the respondents' awareness of PHCCs in their district, the number of visits during the year, the encouraging and discouraging factors for utilizing PHCCs, and the awareness of services provided by PHCCs. The target population was Saudi citizens who were 18 and above and living in Al-Madinah. Excluded were those who were younger than 18, lived outside of Al-Madinah, or were non-Saudi. A sample size of 471 was estimated with a confidence level of 97%. This was calculated using "OpenEpi", a statistical website for sample size calculation. The study population was recruited by a random sampling technique over a two-month period from January to March 2018. Consent was obtained from the participants in the introduction of the questionnaire; further, they were informed that their participation was voluntary, and their inserted information was confidential. The questionnaire data was entered and checked for completeness via Google Drive online forms. Statistical analysis was performed using the Statistical Package for Social Sciences (SPSS), Version 21. Demographic characteristics, the number of PHCC visits per year, and awareness regarding PHC services were summarized using descriptive statistics. A Chi-square test was used to determine the significance of the association between respondents' demographic characteristics and PHC utilization. A P-Value of <0.05 was considered significant.

Results

Socio-Demographic Characteristics:

A total of 481 adult respondents were surveyed from January to March 2018. Half of the respondents (50.1%) were 18-25 years old. Most of the respondents (418) (86.9%) were female, while the remaining 63 (13.1%) were male. About half of the respondents (247) (51.4%) were married, and the rest (234) (48.6%) were single. Regarding the level of education, 394 (81.9%) respondents had tertiary education, while 86 (17.9%) and 1 (0.2%) had secondary education and primary or no formal education, respectively. Among the study population, 214 (44.5%) respondents were students, 169 (35.1%) were employed, 58 (12.1%) were housewives, 25 (5.2%) were unemployed, 9 (1.9%) were retired, and 6 (1.2%) were freelancers. The majority of the respondents (388) (80.7%) were medically free, while 93 (19.3%) had chronic illnesses. Among the chronically ill subjects, 36.6% had hypertension, 30% had hypothyroidism, and 25.8% had diabetes (Table 1).

Awareness of PHC Services:

Most respondents (83.4%) were aware of the existence of a PHCC in their district. Despite this high awareness, 30.7% of those who were aware of the PHCCs had never

Abbreviations

PHC	Primary health care
PHCC	Primary health care center
WHO	World Health Organization
MOH	Ministry of Health
SPSS	Statistical Package for Social Sciences
CBAHI	Central Board for Accreditation of Healthcare Institutions
JCI	Joint Commission International.

utilized their services. More than 80% of the respondents stated that they have an understanding of PHC services. The most common health services provided by PHCCs of which respondents were aware were immunization services (79%), followed by referral to secondary/tertiary hospitals (60%), child health follow-ups (54.3%), chronic disease follow-ups (50.9%), and antenatal care (49.1%). The study revealed that only 5.8% of the respondents were aware of the services available for psychiatric illness diagnosis and treatment (Table 2).

Utilization of PHC Services and Demographic Profile of Respondents:

Two hundred and seven (43.0%) respondents claimed that they visit PHCCs 1-2 times yearly, 80 (16.6%) claimed 3-9 times yearly, 15 (3.1%) claimed monthly, and 179 (37.2%) claimed that they did not use PHC services. In the present study, married respondents were 14 times more likely to utilize the PHC services monthly than unmarried respondents. It was observed that frequent PHC service utilization was significantly associated with age, sex, marital status, occupation, and general health status. A significantly higher proportion of frequent PHC users was found among respondents who were over 55, male, married, retired, and had chronic illnesses (Table 3).

Reasons for Utilization:

Regarding major reasons for PHC utilization, over half of the respondents (54.1%) chose the proximity of the PHCC to their place of residence, 31.2% chose the accessibility to the governmental secondary and tertiary hospitals via the referral system, and 24.6% chose appointment availability. Other reasons were free services (21.7%), services meet health needs (11.6%), good health service (11.1%), and physician awareness of the patient's medical history (3.6%) (Table 4).

Reasons for non-utilization:

More than one-third (38.3%) of the respondents attributed non-utilization of PHC facilities to poor services, while (31.5%) believed that PHC facilities did not meet their health needs. Other reasons were unsuitable working hours (29.4%), doctors less-qualified than hospital doctors (28%), the belief that a health condition did not require PHC (23.1%), and lack of knowledge regarding the existence of a PHCC in the district (4.2%) (Table 5).

Table 1: Socio-demographic Characteristics of Respondents (n=481)

Variable	Frequency	Percentage
Age		
18 - 25	241	50.1%
26 - 35	84	17.5%
36 - 45	90	18.7%
46 - 55	48	10%
56 - 65	12	2.5%
Above 65	6	1.2%
Sex		
Female	418	86.9%
Male	63	13.1%
Marital Status		
Single	234	48.6%
Married	247	51.4%
Educational Level		
Primary or No Formal Education	1	0.2%
Middle / High School	86	17.9%
Higher Education	394	81.9%
Occupation		
Employed	169	35.1%
Housewife	58	12.1%
Retired	9	1.9%
Freelancer	6	1.2%
Student	214	44.5%
Unemployed	25	5.2%
Health Status		
Chronically Ill	93	19.3%
Medically Free	388	80.7%

Table 2: Respondents Awareness of Some PHC Service Components (n=481)

PHC Services	Aware (%)	Not Aware (%)
Immunization	380 (79%)	101 (21%)
Referral Services	289 (60%)	192 (40%)
Child Health: Follow-up	261 (54.3%)	220 (45.7%)
Chronic Diseases: Follow-up	245 (50.9%)	236 (49.1%)
Antenatal Care	236 (49.1%)	245 (50.9%)
Essential Drugs	230 (47.8%)	251 (52.2%)
Sick Leave	223 (46.4%)	258 (53.6%)
Treatment of Common Diseases	134 (27.9%)	347 (72.1%)
Health Education	126 (26.2%)	335 (73.8%)
Medical Consultation	121 (25.2%)	360 (74.8%)
Emergency Cases	113 (23.5%)	368 (76.5%)
Annual Investigations	111 (23.1%)	370 (76.9%)
Follow-up Fracture Cases	107 (22.2%)	374 (77.8%)
Screening Tests	87 (18.1%)	394 (81.9%)
Anti-Smoking Clinics	54 (11.2%)	427 (88.8%)
Radiological Imaging	28 (5.8%)	453 (94.2%)
Community Psychiatric Clinic	28 (5.8%)	453 (94.2%)

(See next page for Table 3: Socio-demographic Characteristics of Respondents as Related to Utilization of PHC Services (n=481)

Table 4: Reasons for Utilizing PHC Services (Multiple Responses) (n=481)

Reasons	Frequency	Percentage
PHCC is Near to the Place of Residence (Distance)	224	54.1%
Secondary/Tertiary Hospitals Require a Referral from PHC	129	31.2%
Available Appointments	102	24.6%
Services Free of Charge	90	21.7%
Provided Services Meet my Health Needs	48	11.6%
Good Health Services	46	11.1%
Physician Knows my Medical History and Records	15	3.6%

Table 5: Reasons for Non-utilization of PHC Services (Multiple Responses) (n=481)

Reasons	Frequency	Percentage
Dissatisfactory Health Service	38.3%	164
Provided Services Do Not Meet My Health Needs	31.5%	135
Unsuitable Working Hours	29.4%	126
Doctors in Hospitals Are More Qualified Than PHC Doctors	28%	120
My Health Condition Does Not Require PHC	23.1%	99
Lack of Knowledge Regarding PHC Existing in the District	4.2%	18

Table 3: Socio-demographic Characteristics of Respondents as Related to Utilization of PHC Services (n=481)

Socio-demographic Characteristics	Never-Used (%)	Ever-Used (%)	Frequency of PHC Services Utilization n= 302			Total (%)	X2	P-value
			1-2	3-9	Monthly			
Age								
18-25	113 (46.9)	128 (53.1)	104 (43.2)	23 (9.5)	1 (0.4)	241 (100.0)	58.934a	.000
26-35	21 (25.0)	63 (75.0)	44 (52.4)	17 (20.2)	2 (2.4)	84 (100.0)		
36-45	24 (26.7)	66 (73.3)	35 (38.9)	25 (27.8)	6 (6.7)	90 (100.0)		
46-55	18 (37.5)	30 (62.5)	14 (29.2)	13 (27.1)	3 (6.3)	48 (100.0)		
56-65	2 (16.7)	10 (83.3)	7 (58.3)	1 (8.3)	2 (16.7)	12 (100.0)		
Above 65	1 (16.7)	5 (83.3)	3 (50.0)	1 (16.7)	1 (16.7)	6 (100.0)		
Sex								
Female	157 (37.6)	261 (62.4)	190 (45.5)	60 (14.4)	11 (2.6)	418 (100.0)	16.826a	.001
Male	22 (34.9)	41 (65.1)	17 (27.0)	20 (31.7)	4 (6.3)	63 (100.0)		
Marital status								
Single	118 (50.4)	116 (49.6)	98 (41.9)	17 (7.3)	1 (0.4)	234 (100.0)	56.142a	.000
Married	61 (24.7)	186 (75.3)	109 (44.1)	63 (25.5)	14 (5.7)	247 (100.0)		
Educational Level								
No formal Education/Primary	0 (0.0)	1 (100.0)	0 (0.0)	1 (100.0)	0 (0.0)	1 (100.0)	10.361a	.110
Secondary	29 (33.7)	57 (66.3)	33 (38.4)	19 (22.1)	5 (5.8)	86 (100.0)		
Tertiary	150 (38.1)	244 (61.9)	174 (44.2)	60 (15.2)	10 (2.5)	394 (100.0)		
Occupation								
Unemployed	7 (28.0)	18 (72)	14 (56.0)	3 (12.0)	1 (4.0)	25 (100.0)	45.368a	.000
Student	98 (45.8)	116 (54.2)	94 (43.9)	21 (9.8)	1 (0.5)	214 (100.0)		
Housewife	17 (29.3)	41 (70.7)	21 (36.2)	17 (29.3)	3 (5.2)	58 (100.0)		
Employed	54 (32.0)	115 (68.0)	73 (43.2)	34 (20.1)	8 (4.7)	169 (100.0)		
Freelancer	1 (16.7)	5 (83.3)	2 (33.3)	3 (50.0)	0 (0.0)	6 (100.0)		
Retired	2 (22.2)	7 (77.8)	3 (33.3)	2 (22.2)	2 (22.2)	9 (100.0)		
Chronic illness								
No	152 (39.2)	472 (60.8)	176 (45.4)	56 (14.4)	4 (1.0)	388 (100.0)	38.474a	.000
Yes	27 (29.0)	66 (71)	31 (33.3)	24 (25.8)	11 (11.8)	93 (100.0)		

Discussion

This study aimed to evaluate the population's awareness regarding services provided by PHCCs in Al-Madinah and the extent of their utilization. In addition, it explored possible factors that could contribute to the utilization of PHC services, along with other factors that discourage patients from seeking medical care from PHC services. The Saudi government is obliged to provide free healthcare services to all Saudi citizens through the Ministry of Health (MOH) according to Article 31 of the Saudi constitution. Therefore, the MOH provides health services at primary, secondary, and tertiary levels(4). The Saudi MOH aims to achieve PHC goals by educating the population regarding prevention and control of health problems, providing maternal and child health care, treating common health problems, providing affordable drugs, and vaccinating children against major communicable diseases(6).

In this study, 83.4% of the respondents were aware of the existence of a PHC center in their district. Similar percentages (82.0%) were revealed in studies done in India(7) and Nigeria (73.0%)(8). Although a considerable percentage of respondents (81.9%) claimed that they have a background regarding PHC services, their responses to each service were dissimilar. In this survey, immunization was the service most known to respondents (79%). This high level of awareness toward immunization is probably linked to the Saudi legislation that made immunization mandatory for issuance of birth certificates and school entry(9). Notably, corresponding results (78.2%) were found in Nigeria, which was credited to their immunization campaigns(10). Awareness of referral services was also high. The referral system in Saudi Arabia raised public awareness and emphasized the utilization of PHC centers. To gain access to secondary or tertiary hospitals, all patients need a PHC physician's assessment and referral letter(11). Other PHC components were unknown to most respondents, especially the community mental health services; only 5.8% of the respondents were aware of these services. This low result is consistent with Christiandolus' research, which reported awareness of 11.9%(8). One of the possible reasons behind such a low level of awareness involves wrong cultural beliefs regarding mental health care(12). Despite the MOH's integration of mental health into primary care in 1990(13), many people still think that mental health disorder management is confined to psychiatry clinics. This study revealed a low level of awareness regarding services such as radiological imaging, treatment of emergency cases, and anti-smoking services. This could be attributed to the unavailability of these services in most PHCCs in Al-Madinah.

In the present study, most of the monthly PHCC visitors were found to be above 55, male, married, retired, and chronically ill. Regarding the association between age and marital status with PHC utilization, approximate results have been demonstrated by other researchers. In Nigeria, Egbewale's study reported that old and married people are more prone to use PHC services(10). A similar determination was found in Brazil(14). Researchers found that never-married people utilize health services less than married people due to their higher survival time(15). Marriage can contribute indirectly in PHC utilization in many ways. Firstly, married people care for and monitor their partners' health(16). Secondly, single individuals enjoy better health status than married individuals(17). Thirdly, married people visit PHCCs for their parenthood roles, which are represented through antenatal care and childhood immunization. In this study, men used PHC services more frequently than women. However, women showed significantly higher rates of visits to their PHCC than men in other parts of the world(18-20). This can be attributed to Saudi cultural norms, like the male guardianship system and the women's driving ban (which was recently lifted). In addition, some studies reported that women did not recognize and treat their illnesses like men did(21). No significant association was seen between the educational level of respondents and the utilization of PHCC ($p>0.05$). Similar results were found in Nigeria(22). This lack of association could be attributed to respondents' similar health care-seeking behavior—regardless of different educational levels. However, a previous study done in Saudi Arabia showed that people with lower educational levels utilize PHCCs that belong to the MOH more than people with high educational levels(3). Another Saudi study revealed that highly educated patients are more prone to use a private outpatient clinic instead of a governmental PHCC(23).

Regarding the factors that influence respondents to visit PHCCs, 54.1% of the respondents stated that the close distance between their residences and the PHCCs is one of the top encouraging reasons; this is consistent with other studies that aimed to show the relationship between distance and use of health services(24-30). Most of these studies concluded an inverse relationship, thus lowering patients' utilization of healthcare services(31). A recent local study done in Riyadh also confirmed the significant impact of distance on patients' utilization. An older study in Ghana stated that most people in developing nations do not seek medical care if the distance exceeds five kilometers(31). A similar study in Papua New Guinea found that 50% of patients do not visit PHCCs if the distance exceeds 3.5 km(24).

The second influencing factor with which respondents concurred was requesting a referral letter (estimated percentage: 31.2%). Credit must be given to the Saudi MOH for establishing a referral system as defined above and continuing its efforts toward developing and enhancing its programs to achieve the best utilization of health facilities(32). Therefore, a separate, updated program named Ehalati was established and approved on April 2nd, 2012. This program is devoted to facilitating referral systems for all patients(33).

The third factor, which 21.7% of respondents found advantageous, was costless service by virtue of Saudi health care law. This is similar to a Ugandan study that identified high cost as a barrier to affording treatment in both emergent and chronic cases(34).

This research explored various reasons for non-utilization of PHC services. Dissatisfaction with health services was the most common reason preventing people from visiting and utilizing PHCC (38.3%). Our results are consistent with the results found by Alzaied et al.(35). This could include a wide spectrum of factors, such as the physical environment of PHCCs, inadequate equipment, prolonged waiting time, and unprofessional attitudes from health care providers(36). Some PHCCs are located in tenanted properties, but others are located in governmental properties, which are usually in better condition than tenanted properties. Tenanted properties are not designed for accommodating health organizations and rarely provide adequate and comfortable surroundings for health care(36,37). However, the MOH has set a goal to obtain accreditation from the Saudi Central Board for Accreditation of Healthcare Institutions (CBAHI) or the Joint Commission International (JCI) for all PHCCs in Saudi Arabia by 2023(37). The purpose of CBAHI and JCI is to set standards for health care quality and patient safety.

Another factor discouraging Al-Madinah citizens is the belief that PHCCs and provided services do not meet their health needs, although our results showed that most populations lack knowledge about the services already established in PHCCs.

In the present study, 29.4% of respondents reported that the working hours of PHCCs are limited and unsuitable. Previous studies showed a high level of dissatisfaction with the working hours of PHCCs(38,39). In most public PHCCs, the hours are between 8:00 am and 4:00 pm(33). These working hours are unsuitable for most workers and students because they are engaged during the morning/daytime with their work or university commitments. Therefore, they cannot seek medical help from PHCCs(36,38). This can explain the high PHC utilization by retired people in this research. In a Saudi study, people were dissatisfied with the fixed working hours of PHCCs during the day in addition to the unavailability during weekends; they prefer private outpatient clinics instead(23).

Twenty-eight percent of our respondents believe that specialists and consultants working in secondary and tertiary hospitals are better qualified than PHC physicians. Therefore, they prefer to go directly to private hospitals instead of visiting PHCCs, assuming that PHC physicians are incapable of properly evaluating their health conditions and needs. In addition, unprofessional attitudes from health care providers and poor communication play an important role in non-utilization of PHCCs(34).

There are some limitations in this study. First, the study requires a larger sample size to ensure a representative distribution of the population. Second, using an online survey does not provide access to all residents with different financial and educational levels. Third, although the survey was distributed randomly, there were far fewer male respondents than female respondents. The survey would be more precise if males responded equally

Conclusion

This study showed a disparity of awareness levels regarding different PHC services in Al-Madinah, with immunization services being the highest and mental health care being the lowest. The utilization of PHCCs was significantly associated with age, sex, marital status, occupation, and general health status. The major reason for non-utilization was dissatisfactory health services. Therefore, regular patient satisfaction evaluations are recommended to improve the quality of provided PHC services.

The role of PHCCs should not be confined to physical territory. They should expand to their surrounding communities by holding social and health events, such as PHCC world health days

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