

An Evaluation of Primary Healthcare Centers (PHC) Services: The Views of Users

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Abstract

This study evaluates the current status of multiple primary health care centers in Riyadh city from different perspectives (access and effectiveness). It explores the patients' perception about utilizations and how they perceive it. Also, it investigates factors contributing to not-fully utilizing the PHCs by patients. It addresses some challenges (problems/barriers/obstacles) that prevent PHCs from utilizing resources.

This study investigates the status of utilizations in different PHCs in Riyadh city and compares the results to international approaches in this field. The researcher will survey users from different PHCs in Riyadh city about their perception of utilizations.

The purpose of this study is to evaluate the current services of PHCs in Riyadh city from the perspective of patients, and to shed light on obstacles that may hinder or motivate patients to use health services.

The study has been conducted in multiple primary health care centers in Riyadh. The population of this study are people from Riyadh city who have visited a primary health care center using simple stratified sampling a convenient sample. A questionnaire, created by the researcher and distributed electronically, was used to collect information from participants.


The results show that the PHC is in good order in Riyadh city; effective and accessible. The challenge is in achieving the best use of it. The fact that most patients would not choose PHC as their first choice should be investigated further. There is no evidence in this research showing the effect of imposing the referral system through PHC. Results show that staff of the PHC center has a potential effect on the users' decision. Training and continuous development may improve the staff performance. Moreover, communication between users and practitioners may be enhanced by increasing the outcomes from health schools and attracting Saudi staff via incentives, continuous training, and scholarship. Frequent awareness programs may also help draw people's attention to the importance of PHC. It would be useful to get input from patients about factors preventing them from visiting PHC and to eliminating these factors.

Keywords: Primary Healthcare Centers (PHC); Utilizations; Riyadh; Health schools

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Introduction

In the late 1970s, primary health care (PHC) was first conceptualized by the World Health Organization (WHO) attempted to put an eye on the social causes of poor health, such

as poverty and lack of access [1]. In 1978, WHO issued the Alma Ata Declaration. It considered primary health care as the means to maintain better health standards for all people by the year 2000. In response to this declaration [2] state that "according to the this Declaration, primary health care is essential health care

based on practical, scientifically sound and socially acceptable methods and technology.” They point out that PHC is the first contact of individuals with the country’s health system. According to Gillam, PHC is also considered a critical base for extending care to communities and vulnerable groups [3]. Thus, it can be defined as the corner stone for national health. It has been reported that the cost-efficiency of health care would be better by transitioning the focus towards primary health care [4].

Demographic changes between countries, different age groups distribution, risk factors, and economic and epidemiological contexts; all make it hard to establish a unique primary health care system that suits all countries. In Saudi Arabia, the Ministry of Health (MOH) provides health services at three levels: primary, secondary, and tertiary. Basically, PHC focuses on preventive and curative primary care services, referrals to secondary and tertiary hospitals. “Saudi Arabia identified the development of primary health care as one of its most important strategies”, says Al-Ahmadi and Roland [5]. According to the Health Statistics Annual Book, there are 2259 PHC centres across Saudi Arabia in 2012. On average, each centre provides health services to 13455 people. Riyadh city has 435 PHC centres, which represent 5.95 centres per 100,000 populations [6].

It has been said that when patients get sick, they are waiting until the evening and then go directly to emergency. They get used to skipping the PHC where most of their needs can be fulfilled. Moreover, some people never know where their nearest PHC centre in the neighbourhood is. Since they have access to secondary hospitals, they are not very keen on visiting PHC.

Reasons for all of this are difficult to be specified exactly. To know these reasons, asking the patients themselves is the concern. Causes may include: far distance to the nearest PHC centre, distrusting workers or difficulties in communicating with them, or inappropriate working hours. These reasons are the challenges or barriers from fully-utilizing PHC in Saudi Arabia.

Research Problem

This research evaluates the current services of PHCs in Riyadh city from the perspective of patients and sheds light on obstacles that may hinder or motivate patients to use health services.

Significance of the study

Theoretically: this research enriches the academic field in the Health and Hospital Administration department.

Practically: the researcher will survey patients from different PHCs in Riyadh city to know the obstacles preventing them, so the MOH solves them and applies the right solutions.

Research objectives

The purpose of this study is:

- to evaluate the current services of PHCs in Riyadh city from the perspective of patients;
- to shed light on obstacles that may hinder or motivate patients to use health services.

Research questions

This study examines the following questions in order to satisfy its purpose:

- what is the patient’s evaluation about PHC services?
- what are the factors affecting PHC patient’s decisions to not fully utilize PHCs in Riyadh city?
- What are actions that might be taken in order to enhance the level of PHC centre utilization?

Delimitations of the study

- spatial delimitations: this study will be conducted in selected PHCs in Riyadh city;
- time delimitations: this study will be in the time frame from April 2015 to May 2015;
- Subject delimitations: this study will evaluate patients’ perceptions about use of PHCs, so this may not describe the correct status.

Literature Review

There have been a lot of studies addressing PHC services. Several studies have been conducted all over the world. In Saudi Arabia, PHC has performed much research in the public health field. Researchers conducted their work in different cities across Saudi Arabia. Multiple findings arose from studies in Riyadh. In this literature, some PHC studies will be reviewed for two main aspects: access and effectiveness. These two aspects have most of the focus from researchers, whether in Riyadh or other cities that can be useful in this research.

126 publications about primary care in Saudi Arabia have been identified in the period from 1985 until 2004 [5]. According to Campbell, Roland, and Buetow [7], access is defined as whether individuals can access health structures and processes of care that they need, where effectiveness is the extent to which care delivers its intended outcome or results. In 2005, AL-Ahmadi and Roland [6] reported that access and effectiveness in Saudi Arabia are good and poor in relation to various criteria they mention [5]. They concluded that PHC centres were accessed and considered effective for patients seeking help in immunization, maternal health care, and control of epidemic diseases. These three services were effective as well. However, poor access and effectiveness were reported for chronic disease management programs, prescribing patterns, health education, referral patterns, and some aspects of interpersonal care including those caused by language barriers. Previously, antenatal care was high in rural areas and the accessibility in urban areas may be improved through effective health education programs [8]. Health education was recommended by Baldo et al. [9] to improve natal and postnatal care services in PHC centres.

Satisfaction among patients of PHC centres was significantly covered in the literature. Some of these studies have surveyed samples from the Saudi population as in the study conducted by Mansour et al.[10], Qatari et al.[11] and Saeed et al.[12]. Other studies have been done on samples from Riyadh city by Mahmoud et al.[13], Falouda et al.[14] and Al-Shakkak et al.[15]. Findings ranged between satisfaction and dissatisfaction. They were also dependent on the aspect and the surveyed people.

Other parameters were significant in these changes among satisfaction among PHC centre patients, whether those visited centres were in Riyadh or in another city in Saudi Arabia. Since the pattern of disease has changed from communicable diseases to non-communicable diseases [16] awareness about chronic diseases was recommended to be raised via PHC centres.

Diabetes and hypertension patients in PHC centres were also surveyed. In the Asir region, (Al-Khaldi and Khan) and (Al-Khaldi and Al-Sharif) [17,18] discuss the diabetic health in PHC centres in 2000 and 2002, respectively. The former research explored the importance of health education among diabetic patients in the Asir region who visit PHC centres, where the latter research revealed there were shortage in resources for diabetic care and this may negatively impact the continuity of care. Likewise, hypertension was studied in two different papers. In 2003, Al-Mustafa and Abulrahi [19] revised the role of PHC centres in managing hypertension. They concluded that the services offered to patients with hypertension were less than the expected; and the load on the practitioners in the same centre is high. Almost, the same result has been found in the study of Siddiqui, Ogbeide, Karim, and Al-Khalifa which was in Riyadh [20]. They recommended adopting a strategy to include health education about life style. Al-Faris and Al Taweel [21] emphasized health education for both patients and doctors in preventing chronic diseases. They suggest that doctors should be educated on more appropriate and cost-effective prescriptions. Correspondingly, Mahfouz, Shehata, Mandil, Al-Erian, Al-Khuzayem, and Kisha [22] added that there are fields which need to be addressed in medical education directed to PHC physicians to encourage them toward more rational prescribing. Similarly, Dashash and Mukhtar [23] argued that the prescribing for asthmatic children did not conform to national guidelines for asthma treatment. Besides chronic diseases prevention and the need for health education improvement, access to and effectiveness of immunization in PHC centers were reported by Al-Teheavy et al. [24].

They concluded that, in Al Hassa, the number of reported diseases diminished with the increase in vaccination. Coupled with this result, vaccination coverage in the specified area was improved by the implementation of PHC. In the light of referral, Patterns of referral from health centres to hospitals in Riyadh region was studied in 1997 by Khoja et al. [25]. They highlight that imposing referrals decreases the visits to outpatient department and increases visits to PHC and emergency department. Another key point, communication between the PHC and secondary and tertiary hospitals should be more effective. Equally important, improvement for the referral system is greatly needed [26]. Furthermore, Al-Khashman [27] points out that PHC physicians provide unsatisfactory services toward the detection and management of hypertension and other cardiovascular risk factors. In addition, some of their actions need to be improved along with giving attention to young patients [12]. After all, Saeed and Mohamed [28] assess factors that affect

the patients' perceptions toward PHC utilization in Riyadh. Language and religion of PHC physicians, free services, location, were the least encouraging factors.

Patient characteristics related most were gender, education, and occupation, whereas the patient's age was not associated to utilization. "An experienced physician, Moslem physicians and Arabic speaking health team offering free service in PHCCs located near patients' homes can augment utilization of services", they concluded. Al-Ghanim [29] studied factors that prompt patients to best use private outpatient clinics despite the availability of free public PHC centres in Saudi Arabia.

Methodology

Research design

This research is explorative. The study has been conducted in multiple primary health care centres in Riyadh to evaluate current services in those centres from the perspective of patients and highlight obstacles that may hinder or motivate patients to use health services. For the purpose of demonstrating the population data and then analyzing, descriptive research method is the appropriate method.

Population and sampling

Population: The population of this study is the people from Riyadh city who have visited a primary health care centre at any time for any purpose.

Sampling procedure: The suitable statistical method for this study is the simple stratified sampling, a convenient sample (**Table 1**).

Research tool: A questionnaire created by the researcher, was used to collect information from participants. It was distributed electronically through email and social networks with 10 questions divided into two sections. The first section asks about the sociodemographic information: gender, marital status, age, location of the PHC centre in Riyadh, and level of education. The second section contains five questions asking about number of visits per year, reasons for these visits, effectiveness, likeliness for choosing PHC centres as a first choice, and reasons for not making PHC centres the first choice.

Data collection: The data collection has been done online from the participants, and this is why there was no specific time of the day to answer the survey questions. The average time for completing the survey was two minutes. Total responses to the survey were 426 responses, 388 responses out of them were complete (completion rate 91.07 %). The questionnaire results have been collected in the period from April 21, 2015 until April 25, 2015.

Table 1 The distribution for the primary health care centres visited by the participants in Riyadh city.

Riyadh Region	Southern	Eastern	Northern	Western	Central	Total
Number of PHC centres surveyed	49	111	155	46	27	388
Ratio	12.63 %	28.61 %	39.95 %	11.86 %	6.96 %	100 %

Statistical treatment: The collected data was evaluated and statistically analysed. The website offering the on-line surveys, provides analysis for the gathered date and then demonstrates the all the results needed.

Limitations

- The study is conducted only in primary health care centres in Riyadh city, therefore the results are not representative of the whole population;
- The time period for the distributing of the questionnaire and then collecting data was limited;
- Incomplete responses have been excluded, which may have contained useful information;
- Very few responses chose 'Others' (questions 5, 7, and 10) while their choice is in the list. These answers have been re-calculated and added to the right choice but there were no significant changes in the order, so they were left in 'Others'.
- The on-line questionnaire cannot determine if the participant contributes more than once, from another electronic device (it only allows for one survey for each IP address).

Section one: sociodemographic information

Gender: 263 participants of the participants in this study were male (67.78 %), with 125 female participants representing (32.22 %) (Table 2).

Marital status: The vast majority among the participants were married. They represented the highest percentage (66.57 %) which account for 259 of the total respondents. The lowest marital status category was the widowed followed by divorced, representing 0.52 % and 1.29 %, respectively. Single participants were 122 representing 31.44 % (Table 3).

Table 2 Gender of the participants.

Answer Choices	Responses
Male	67.78 % 263
Female	32.22 % 125
Total	388
Basic Statistics	
Minimum	Maximum
1.00	2.00
Median	Mean
1.00	1.32
Standard Deviation	0.47

Table 3 Marital status of the participants.

Answer Choices	Responses
Single	31.44 % 122
Married	66.75 % 259
Widowed	0.52 % 2
Divorced	1.29 % 5
Total	388
Basic Statistics	
Minimum	Maximum
1.00	4.00
Median	Mean
2.00	1.72
Standard Deviation	0.54

Age: Almost half of the participants were in the group age between 26-35 years (49.74 %). They were more than participants aged more than 35 years who were 31.44 %. The younger participants were 73 aged between 16-25 years (18.81 %). Surprisingly, there were no participants representing the category of the group age from 0-15 years. Despite the fact that the choice was explained right next to the question, the question may have been misunderstood (Table 4).

Location of the PHC centre in Riyadh: 39.95 % of the participants visited a primary health care centres located in the Northern region of Riyadh. The Eastern primary health care centres come second with a percentage of 28.61 %. That is more than the visited centres in Southern (12.63 %) and Western (11.86 %) regions of Riyadh. The least visited centres were in the Central region by 27 participants representing 6.96 % of the total number of visits (Table 5).

Level of education: More than half of the participants (53.35 %) held a bachelor's degree. Then came participants with a master's degree (77 participants) and diploma (55 participants). There were only five participants who were held a doctorate degree

Table 4 Age of the participants.

Answer Choices	Responses
0-15 years	0.00 % 0
16 - 25 years	18.81 % 73
26 - 35 years	49.74 % 193
More than 35 years	31.44 % 122
Total	388
Basic Statistics	
Minimum	Maximum
2.00	4.00
Median	Mean
3.00	3.13
Standard Deviation	0.70

Table 5 Location of the visited PHC centre in Riyadh.

Answer Choices	Responses
Southern	12.63 % 49
Eastern	28.61 % 111
Northen	39.95 % 155
Western	11.86 % 46
Central	6.96 % 27
Total	388
Basic Statistics	
Minimum	Maximum
1.00	5.00
Median	Mean
3.00	2.72
Standard Deviation	1.05

Table 6 Participants' level of education.

Answer Choices	Responses
Diploma	14.18 % 55
Bachelor's	53.35 % 207
Master's	19.85 % 77
Doctorate	1.29 % 5
Others, please specify	11.34 % 44
Total	388
Basic Statistics	
Minimum	Maximum
1.00	5.00
Median	Mean
2.00	2.42
Standard Deviation	1.11

(1.29 %) while the other qualifications, less than bachelor's, represent 11.34 %. These include high school diplomas (Table 6).

Section two

Number of visits per year: Only three participants have visited primary health care centres more than 25 times. On the other hand, 295 participants have less than five visits in a year (76.03 %). Between five to 15 visits in year, there were 20.26 % of the participants and 2.85 % have visits in between 16 and 25 times per year (Table 7).

Reasons for visits: Most people in Riyadh visited primary health care centres for treatment. They account for 48.97 %. Vaccinations, follow-up, and medication represented 28.09 %, 5.67 %, and 8.25 %, respectively. Other reasons like employment or school check-up, volunteering, sick leaves, and referral represented the last 9.02 % of the total reasons (Table 8).

Effectiveness: 207 participants (53.35 %) rank the primary health care services as good. Less than that (23.45 %) perceive these services as weak, where 5.93 % of the participants claim that the services are ineffective. The positive views were 13.14 % for very good services and 4.12 % for excellent. By merging the two negative categories (ineffective and weak) and the two positive categories (very good and excellent), the results in percentages were 29.38 % for less than good and 17.26 % for more than good. Moreover, when merging the categories of good, very good, and excellent together to be an effective or acceptable services, they represent more than 70 % of the participants' evaluation for PHC centre services (Table 9).

Likeliness for choosing PHC centres as a first choice: 74.48 % of the participants admitted that they do not make primary health

care centres their first choice. This percentage represents 289 participants. The rest (99 participants) report that primary health care is their first choice (25.52 %) (Table 10).

Reasons for not making PHC centres the first choice: The 289 participants who did not choose primary health care as their first choice were asked about their reasons. These were because it is not comprehensive and the scope of its services do not cover all specialties (33.22 %), mistrusting staff (28.03 %), inappropriate working hours (23.53 %), and the distance to the nearest centre (1.73 %). Having insurance together with working in other hospital were other reasons that represent 13.49 % of the reasons (Table 11).

Summary

The researcher conducted this study to evaluate the current PHC services in Riyadh city from the perspective of patients and to explore the obstacles that may affect patients' use of it. The main aim of the researcher is to examine factors behind either benefiting or not from PHC in hope that this research will enhance its services.

The study has been conducted in Riyadh city in Saudi Arabia during the second semester of 1436 H. The research instrument was a questionnaire. There were 426 received responses with a completion rate of 91.07 %. Therefore, complete responses were 388 from PHC centres in the five regions of Riyadh (Central, Eastern, Western, Southern, and Northern). The questionnaire contained two main sections. The first questions were on sociodemographic information, while the second section questions had the number of visits per year, reasons for these visits, effectiveness, likeliness for choosing PHC centres as a first choice, and reasons for not making PHC centres the first choice. The data has been collected and analysed via 'Survey Monkey' website which extract the frequency and percentage for the answers.

Discussion

The vast majority of the participants in this research were male. This might be an indicator that the main beneficiaries from PHC centres are male. Married people participated in the questionnaire more than other marital statuses. Thus, they use PHC more than others. The age group from 26 – 35 years have accessed PHC the most. This can be related to their susceptibility for diseases since they are more likely to be exposed to an external environment. Participants aged older than 35 were second in utilizing PHC and this is because morbidity increases with age. Although some of the purposes for visiting PHC is vaccination; more for children. The paradox is that there was not any participant from the age group less than 15 years. However, and despite the fact that the age question was explained next to it, this may come from misunderstanding the question in the questionnaire. Level of education of Riyadh people has not a significant effect on PHC. This is because that among participants, only 11.34 % have high school degree or less or even illiterate. While the rest have diploma degree at least.

Slightly more than three quarters of people contributed to the questionnaire, exactly (76.03 %), revealing that they visit PHC less than five times a year. No evidence whether this number is related to the effectiveness of these centres or not. Further

Table 7 Number of participants visits per year.

Answer Choices		Responses		
Vaccination		28.09 %	109	
Follow-up		5.67 %	22	
Treatment		48.97 %	190	
Medication		8.25 %	32	
Others, please specify		9.02 %	35	
Total		388		
Basic Statistics				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	5.00	3.00	2.64	1.22

Table 8 Reasons for visits.

Answer Choices		Responses		
Vaccination		28.09 %	109	
Follow-up		5.67 %	22	
Treatment		48.97 %	190	
Medication		8.25 %	32	
Others, please specify		9.02 %	35	
Total		388		
Basic Statistics				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	5.00	3.00	2.64	1.22

Table 9 Effectiveness.

Ineffective	Weak	Good	Very good	Excellent	Total	Weighted Average
5.93 %	23.45 %	53.35 %	13.14 %	4.12 %		
23	91	207	51	16	388	2.86
Basic Statistics						
Minimum	Maximum	Median	Mean	Standard Deviation		
1.00	5.00	3.00	2.86	0.87		

Table 10 Likelihood for choosing PHC centres as a first choice.

Answer Choices		Responses		
Yes		25.52 %	99	
No		74.48 %	289	
Total			388	
Basic Statistics				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	2.00	2.00	1.74	0.44

Table 11 Reasons for not making PHC centres the first choice.

Answer Choices		Responses		
Scope of PHC services (not comprehensive)		33.22 %	96	
Distrusting		28.03 %	81	
Far from your house		1.73 %	5	
Working hours are not suitable		23.53 %	68	
Others, please specify		13.49 %	39	
Total			289	
Basic Statistics				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	5.00	2.00	2.56	1.48

investigation is needed to report if this number of visits is in the normal range. The low number of visits was reported in Mahfouz et al. [30]. They state that in the Asir region, the elderly and adults have visited PHC four and six times, respectively. 20.62 % have visited the PHC more than five times and less than 15 times in a year. Similarly, almost 13 visits per year were estimated in Qatif for hypertensive patients visiting PHC [19].

Few people have made more than 15 visits in a year. By the same token, several visits to the PHC may suggest that the outcomes of PHC services are unsatisfactory, so they revisit again to get the effective services they need. This was supported by Al-Sakkak et al. [15] who found that number of PHC visits per year is inversely related to satisfaction level. On the other hand, multiple visits may indicate a need for PHC services and an awareness of patients toward the importance of follow-up, or other services. This can be related to chronic diseases, for example, as found in Zhao, Wright, Guthridge, and Lawton [31]. They state there were 20-30 PHC visits per year for patients. Another suggested reason for multiple PHC visits annually is using specific medications [23].

The reasons for these visits differ. Barely half of the participants went to PHC for treatment. Comparing to Al-Eissa [32] results, the latter observed that people visit PHC for this reason is more (87 %). Also, he found that vaccination was reason for only 0.2 % of the visits, whereas in this study it causes 28.09 % of the reasons PHC visits. Al-Teheawy and Foda [24] supported this finding saying that PHC implementation improved vaccination

coverage in Al Hassa. This low percentage could be a result of having zero participants in the age group of less than 15 years, which is explained earlier in 4.1.3. Moreover, follow-up later after an appointment (5.67 %) and getting medications (8.25 %) were two reasons for visiting PHC. The other reasons that not worth considering included pre-school check-up, sick leave, referral, and volunteering. Check-up had been a reason for 1.54 %, slightly different from 1 % in Al-Eissa [32] who reported sick leave of 2 % that has decreased to 0.01 % in this research. Still, the percentage of people visiting PHC for referral is low. The best use of PHC is achieved after imposing the referral system. Khoja et al. [25] added that the visits to primary health care centres increased after introducing the referral by 11.9 %.

Effectiveness were among the most studied subjects in PHC besides satisfaction. More than 70 % of people visiting PHC rank their visits as good at least. 23.45 % found that the services they got were weak. Only 5.93 % found their visits ineffective at all. The rating 'Good' got 53.35 % exactly. This moderate rate is nearly similar to Mansour and Al-Osaimi but less than 3.77 out of a maximum five that was reported by Saeed et al. [12] and 60 % that was reported by Ali and Mahmoud [13] Different from these results, the hypertension patients were unsatisfied with services provided through PHC in Riyadh [20].

As expected, the majority would not choose PHC as their first choice when needed, rather than 25.52 % who preferred PHC as their first choice. Ali and Mahmoud [13] conducted a study examining satisfaction among PHC patients resulted in 60 % satisfaction. 74.6 % of satisfied patients indicated that PHC was their first choice, and 61.1 % of non-satisfied gave the same response.

In this research, there were multiple reasons behind the low rate for choosing PHC as a first choice. Inadequate specialties covered by PHC prevented 33.22 % of people from visiting PHC centres. Another reason inhibiting the utilization of PHC was distrusting the services provided (28.03 %). This can be related mainly to staff, physicians in particular [28]. They found that the factors belong to physicians affect the use of PHC. In addition, medication errors in PHC could be another reason for distrusting PHC services. Khoja et al. stated that prescribing errors were found on 18.7 % prescriptions [33]. Working hours were not suitable for only 23.53 %. Notably, similar results saying that working hours were not important for 68.3 % of people visiting public PHC in Riyadh [29]. In the previous paper, the location of PHC centre was important for 91.1 %. This factor was not a reason for failing to visit PHC centres in Riyadh. Only 1.73 % said that the location of the PHC centre is far from them. Thus, more than 98 % have no issues with the location of PHC centres. The rest of the reasons for not choosing PHC as the first choice were having insurance (1.8 %)

and working in hospitals (less than 1 %), so they have access to that hospital.

After all, and as a result from the discussion above, we can conclude that the PHC services are effective and accessible but not fully utilized from Riyadh city people due to several factors. There is a need to study the preventing factors in order to minimize them.

Conclusion

The purpose of this study was to evaluate the current services for PHC in Riyadh from the patients' perspectives. This research contributes to the previous research in the same field in investigating the factors affecting patients' perceptions. The results show that the PHC is in a good shape in Riyadh city, as it is effective and accessible. The challenge is in achieving its best use. The fact that most patients would not choose PHC as their first choice should be investigated further. There is a need for additional investigation for the reasons behind this decision. Few people visit PHC centres to get referrals to secondary or tertiary hospitals. There is no evidence in this research about the effect of imposing the referral system through PHC (**Appendix 1**). The results show that staff of the PHC centre have a potential effect on the users' decision. They distrust the services provided. Training and continuous development may improve the staff performance, hence the trust will be regained. The impact of these reasons might be improved when there are frequent awareness programs to draw people's attention to the importance of PHC. The reasons should be addressed and then reduced.

Recommendations

As previously stated, there are several factors affecting utilization of PHC. Some of these factors are encouraging that need to be improved or discouraging that need to be eliminated or at least minimized. Some recommendations extracted from this study would be helpful. These recommendations will be categorized in

three parts, system, staff, and people.

First, the system should enforce a referral system that restrict patients from by-passing PHC which should be the first contact between individuals, family, and the community with health services. Health records would prevent duplication in processes and procedures. Also it will help in easy referral, information transforming, and reducing administrative and technical work. Promoting awareness programs may start from the PHC centres to raise the community awareness. These programs may include flyers, educational labels, media campaigns etc. Second, comes the workforce. Communication between PHC staff and patients is important. Since the majority of professional workers in Saudi hospitals are expatriate, communication may be poor. Increasing the outcomes from health schools and attracting Saudi staff via incentives may enhance communication. Continuous training and scholarship for staff will improve their performance as well. The last recommendations concern people. As mentioned in the first recommendation, raising the community awareness would help much in utilizing PHC. It would be useful to get inputs from patients about factors preventing them from visiting PHC to solve them.

Future Studies

Future studies first should try to overcome the limitations in this study. Widening the coverage for the study, including other PHC centres from across Saudi Arabia and not only Riyadh city, and extending the period of the study are possible areas to be overcome in the upcoming research. Further investigation may discuss the impact of activating a referral system on the use of PHC. To solve the distrusting reason, more investigation could be done regarding the effect of continuous training on the quality of communication between the user and staff. Also, the working hours for PHC centres have been argued for long time. Getting inputs from patients and then compare them to the benchmark would be useful and may lead to better use of the PHC services.

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