

An Insight into the Pattern and Components of Health Care Quality Affecting the Utilization of Health Care to Saudi Residents of Jeddah, Saudi Arabia

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Abstract: The Ministry of Health in Saudi Arabia provides primary health care by the use of a network of Primary Healthcare Centers (PHC) throughout the Kingdom and with a referral system to advanced health care through general and specialist hospitals. In this study, a mixed method (qualitative and quantitative) was designed for consumers attending PHC in Jeddah during the period from September 2011 to April 2012. The aim of this study is to assess patients' satisfaction and to give an insight into patients' views regarding health care services provided at primary health care centers in Jeddah. In addition, this study attempts to identify barriers that obstruct achievement of high quality in primary care organizations. Patients' satisfaction from a scale of 1-5 being 5 highly satisfied study showed that they were satisfied with several aspects of access (Physician 4.3/5, health team 3.66/5, geographical location 3.66/5, facilities 4.11/5 and outcome 4.2/5). Results also suggest that many factors including the communication skills, experience, gender of physician, language are critical determinants of the health system's performance which at present some of these aspects are inadequately considered in policies and programs for developing health care systems. Moreover, it was concluded that in order to deliver a primary and functional health care, the system must address the citizens' necessities, expectations and acceptance and provide the best service according to affordability of the Ministry of Health Resources.

Key words: Referral, PHC, satisfaction, health care systems, patient

INTRODUCTION

The system of health care designed to meet the health care needs of the target population. Good health is the ultimate goal for health systems according to the World Health Organization Report in 2000, health systems taking into consideration the expectations of the population and fair financial payment in which quality, efficiency and acceptability are the main dimensions to evaluate approach of health care systems (Duckett, 2004).

In addition, primary health care defined by the Alma-Ala International conference as "the essential health care made universally accessible to individuals and acceptable to them, through their full participation and at a cost that community and country can afford" (Duckett, 2004; Mahfouz *et al.*, 2007).

Any healthcare system should attempt to achieve the main objectives of the ideal healthcare system and the overall requirements including: universal and equal access for all members of the society, effective care for

obtaining better health outcome, efficient use of resources, high-quality services and responsiveness to patient concern (Koppel *et al.*, 2003; Goddard and Smith, 2001; Kahan and Goodstadt, 1999). However, the populations' view should be considered in the evaluation of the quality of healthcare system because patient's satisfaction is an important outcome of health care services and affects compliance with medical advice, service utilization and the clinician-patient relationship (Hjortdahl and Laerum, 1992; WHO, 1994). According to the declaration of the promotion of patients' rights in Europe, people should be informed about health services and the way they are conducted. In addition, they should also have the right to participate in the planning and evaluation services (WHO, 1994). These aspects are also stressed in the reforming health care; the health care reform must address the citizens' needs taking into account their expectations. It is also stressed that the citizens' voice should be considered when planning the health care system (WHO, 1994). To collect information

about population's evaluation of health care, surveys are widely used in order to investigate various problems related to population needs of services, the access to these services and other aspects that help to evaluate and improve the healthcare services (WHO, 1994). Information obtained by patients' survey has proven to be a valuable source for quality improvement and strategic planning of health services. Primary health care centers form the cornerstone of free health system in KSA. This program began in 1984 (Qatari and Haran, 1999). Involvement of patients in assessing quality improvement measures through their feedback would lead to different changes in the attitude and behavior of the involved patients and may give more confidence in PHC (Laesen and Rootmon, 1996). In the INGDOM of Saudi Arabia (KSA) such studies were scarce and concentrated mainly on patient's attitude. The present study attempts to assess patient's satisfaction and issues affecting the utilization of PHC services.

MATERIALS AND METHODS

A mixed method research; quantitative (cross-sectional descriptive study) and qualitative (focus group discussion) methods. The aim of this design is to triangulate and complement the evidence collected from both qualitative and quantitative data. Cross-sectional descriptive study with a structured questionnaire was conducted to interview patients on primary healthcare centers. The participated residents who attended the primary healthcare centers and the healthcare centers used in the survey were randomly selected. Eight focus groups discussion (four for males and four for females) were conducted at four selected primary health care centers during the working hours. Discussion of each focus group lasted for about 30 min. In each group discussion, the research team met with 8-10 persons. The focus group discussion was conducted after the cross sectional study.

A cross sectional survey was designed for consumers attending PHC in Jeddah during the period from September 2010 to April 2011. The PHC were selected randomly according to geographical area. Eight PHCs were selected, two from each geographical basis. The patients attended those PHC were also selected by systematic random sampling (every 5th patient) from Saudi patients aged 15 years and above. The questionnaire for this study was implemented to 30 patients as a pilot study that was not included in the results. In addition, the questionnaire was tested and minor modifications in the sequence and wording of some questions were done. Meanwhile, it was composed of three parts. The first part contained socio-demographic

data (age, gender, etc.). The second part contained issues that are related to the utilization of health services. The third part contained items that measure the satisfaction of patients regarding delivered health services. It was divided into six divisions including physicians (9 items), health teams (5 items), facilities (8 items), geographical locations (5 items), outcome (3 items) and the last one concerned about the patients' feedback on 22 items and questions to find out the most encouraging or discouraging items to utilize the PHC services. The patients' responses to quality assessment measures affecting the health services were rated on a scale in which five is the highest and one is the lowest. Five points are given to highly encouraged, four to moderately encouraged, two points granted to no effect and one point to completely discourage. The third part of the questionnaire was related to the satisfaction and was rated on a Likert scale ranging from 1-5 (highly satisfied). Meanwhile, trained students in the PHC from the Faculty of Medicine at King Abdul-Aziz University were available in the selected PHC to help the patients filling questionnaire, clarifying the scope of PHC services and explaining some difficult terms for them. Researchers conducted the focus group discussions after doing many role-play with each other to improve face, content and discriminate validity of the questions. The researchers used both closed and open-end questions to enable the participants to express their views, concepts and feelings toward the health services that are provided by primary health care centers at Jeddah, Saudi Arabia.

Statistical analysis: The collected data were manually checked for completeness before being statistically analyzed by Statistical Package for Social Science Program (SPSS) version 16, 2005. The internal consistency of the overall score of the factors favoring the utilization of PHC was about the physician, the health team, the geographical location and the outcome were calculated using cronbah alpha and the alpha was then 0.81, 0.85, 0.83, 0.92, 0.79 and 0.69, respectively.

The qualitative data were presented in the form of number and percentage. The mean and standard deviation was calculated for each score. The scores of the factors favoring the utilization of PHC were ranked.

RESULTS

Table 1 shows the socio-demographic data for patients who were studied. The higher age groups were in the 30's with representing 40% of the whole sample and male to female percent were 52-48%, respectively. Patients with low income represent >50% of the study sample.

Moreover, >50% of the patients visiting the PHC were from urban areas. Table 2 shows the distribution of the studied patients according to services provided for them and the number of visits in the previous year. It showed that 38.2% of the patients attended the PHC in order to receive medical care by the physicians. While, 39.3% of them visited the PHC center to receive maternal care. In addition, 10.2% came to give their children the required vaccination. Also, 40.2% of the patients visited the PHC from 1-6 times and 53.8% of them visited PHC from 6-12 times.

Table 3 shows the variables used to measure patients' satisfaction by showing ranks given to each variable in the utilization of PHCs. The first was given to physicians and other aspects that define their service such as experience being a Muslim and if the center offers a physician from the same gender. The same gender

had higher rate with mean of 4.6. For health team factors, friendly behavior, delivering health education and listening well to patients had the higher rate in this category with mean of four for each factor. The facilities provided a good satisfaction rating with mean of above four. The group which has the highest rank in the measurement of patient satisfaction was the physician group with 4.32/5. Furthermore, the survey has also given the chance to participants to add any complaints or comments about health care facilities and services. The answers were mostly concerned with improving the centers to provide better services to elderly and handicapped people since the most of the centers are not equipped with suitable facilities such as special washing rooms and parking lots. The analysis of patient complaints is vital if this data to be used to accurately implement quality improvement measures.

Table 1: Socio-demographic characteristics of studied subjects (n = 1046)

Variables	N	Percentage
Age group		
15-30	143	13.7
30-39	402	38.4
39-40	278	26.6
40-50	117	11.2
50+	106	10.1
Gender		
Male	545	52.1
Female	501	47.9
Occupation		
Business	23	2.2
Government employee	340	32.5
Laborer	76	7.3
Student	186	17.8
Unemployment	421	40.2
Level of education		
Illiterate	208	19.9
Elementary and intermediate	401	38.3
Secondary	437	41.8
Income		
<3000	575	54.9
3000-7000	392	37.5
>7000	79	7.9
Residence		
Urban	597	57.1
Semi-urban	449	42.9

Table 2: The distribution of the studied patients according to the service provided for them and number of visits within a year

Variables	N	Percentage
Services		
Physician	400	38.2
Maternal care	412	39.3
Child care	107	10.8
Pharmacy	8	0.7
Dental	8	0.7
Laboratory	7	0.6
Vaccination	100	10.2
Dressing	4	0.3
No. of visits		
1-6	420	40.2
6-12	563	53.8
12-24	56	5.4
≥24	7	0.6

*The patients may attend health center to receive >1 visit

Result of focus group discussion: Male participants showed a high satisfaction regarding services provided from physicians, child care service, vaccination and referral system. On the other hand, female participants had a high satisfaction regarding maternal care and laboratory.

Table 3: Patients' scoring and ranking regarding variables that affect the utilization of primary healthcare services

Variables	Mean	Rank	Over all
Physician (9 items)			
Experienced	4.63	1	
Muslim	4.60	3	
Same gender	4.63	1	
Examine the patient each visit	4.23	15	
Personal knowledge	4.27	13	4.32
Explain the condition	4.27	13	
Present in each visit	4.28	12	
Refers patients easily	4.02	20	
Listens well to patients	4.01	21	
Health team (5 items)			
Friendly behavior	4.20	16	
Speaks Arabic	3.20	26	3.66
Co-operative	2.90	28	
Delivering health education	4.10	18	
Listens well to patients	3.90	23	
Geographic location (5 items)			
Near home	4.20	16	
Near public services	4.10	18	
Adequate core parking	3.90	23	
Near a private service	3.20	26	3.7
Near work	2.90	28	
Facilities (8 items)			
Free service	4.40	5	
Comfortable reception area	4.30	9	
Short waiting time	4.30	9	
Available ambulance	4.30	9	4.11
Available telephone	3.90	23	
High patients load	2.90	28	
Easy obtained and record	4.48	4	
Different places for males and females	4.37	6	
Outcome (3 items)			
Available treatment	3.99	22	
available investigation	4.32	7	4.2
Follow up	4.31	8	

While male participants expressed their needs toward having a suitable place for parking, a suitable working hours to visit the primary health centers and the need of female physician for their mothers, sisters and wives.

Female participants expressed their needs toward having good communicator physicians, dental and laboratory health care services.

Participants with high level of education had high satisfaction regarding physician, maternal children, vaccination and pharmacy. Both participants with low and high level of education were unsatisfied by laboratory health education and referral services that delivered by the PHCs. All participants that either lived in an urban or semi urban areas were unsatisfied by the services provided by dental clinics and laboratory departments.

DISCUSSION

Primary health care concept of care involves presenting services through teams of health professionals to individuals and communities. It requires teams of health professionals: physicians, nurse practitioners and assistants with specific and sophisticated biomedical and social skills. It also involves a practical approach to improve management and report any health problem that may occur. These services are publicly funded from the ministry of health of Saudi Arabia (Ministry of Health, 2003).

Quality of care is measured according to access to care and effectiveness of care taking into consideration the clinical and interpersonal quality of care (Campbell *et al.*, 2000).

Moreover, investigation, monitoring and evaluation of patient complaints and patient satisfaction data are excellent indicators for quality of care and can improve strategies to provide health care consumers input into improvement of health care services and delivery.

A health-care worker is the most important determinant factor in utilization of PHC services in Jeddah. These findings agreed with the findings of Saeed and Mohamed (2002) and Al-Faris *et al.* (1996).

It is essential that PHC personnel are trained and experienced to orient people towards the concept and principles of PHC (Mahfouz *et al.*, 2007). In the current study done, physicians' services ranked the highest score which show that patients were very satisfied with their doctors and they think that doctor's experience is very important factor to achieve their satisfaction. In fact, a doctor's education, training, experience and recognition are crucial components in receiving the highest quality of health care. The results revealed that the most important characteristics which should be available for health

professionals are good Islamic disciplines, medical experience and excellent communications skills as well as the availability of both gender among physicians. This relationship builds trust in physician and is used by the patient to evaluate a physician's knowledge or skill. Patients reported high levels of satisfaction with physicians' care; they were not satisfied with the communication skills of the health providers. At times there are excellent doctors who are highly experienced and trained but they can not have the right tools to communicate with their patients due to many factors including different cultural and linguistic backgrounds (Mahfouz *et al.*, 2007). Some studies in Saudi Arabia have shown contradictory results to the present study and demonstrated that physicians' communication skills were more satisfactory to patients than their professional skills (Mahfouz *et al.*, 2007). Moreover, answers provided by patients may not be precise due to understanding the question differently thereby providing answers that do not reflect their real satisfaction. The patient feels that the health provides should be kind and friendly and this contributed greatly to the overall customer satisfaction. Preferring to be treated by the same sex gender is also related to the culture, traditions of Muslims and to Saudis in particular. Other studies did not show a great importance or link between ethnic group or gender of the health provider and utilization of PHC service (Singh *et al.*, 1999) as that study was carried out in Trinidad and Tobago in 1999 which has different community and culture.

The study showed health providers would be more effective if they are friendly, co-operative and Arabic speaking, since these factors will contribute greatly to the relationship between patient and health team to offer better health educational activities. Many studies reported that communication, humanity and friendly conduct of the health team are among the most important issues for patients and have direct effects to functional good health care (Leppanen *et al.*, 1997; Smith *et al.*, 1999).

The study revealed that physician's services received the maximum patient satisfaction rate of 4.42 (88.4%). In addition, the satisfaction score was high for child care, vaccination, pharmacy and maternal services. The lowest satisfaction score was laboratory services 3.26 (65.2%). In addition, the satisfaction score was low for dental care and delivering health education. In comparison to a study which was done in New Delhi, India, the high satisfaction was given to child care and immunization while the pharmacies services had the worst dissatisfaction followed by the availability of medications and the laboratory services (Abdalla *et al.*, 2005;

Patro *et al.*, 2008). The study results agreed with 15 in which it is reported the lowest satisfaction given for availability of laboratory tests (2.02) and communication score 2.1. The overall satisfaction for the provided services was satisfactory. Other studies revealed overall completed score satisfaction was ranging from 51-97% 2, 3. This wide variation may be due to difference in the studied population, methods or sampling procedures as well as difference to the kind of health system and socio-cultural believes. The poor satisfaction score in this study was given for laboratory services which may reflect the non-awareness of patients to the scope of the services.

Having free services are highly, encouraging aspects for utilization of the PHC services since most patients going to those centers have low income.

Research suggests that there are problems with delivering information, education, gender of the physician or care provider, coordination of care and respect for patients' preferences in which they affect patient's satisfaction across all clinical settings (Fig. 1). Patients were unsatisfied with several aspects of access, including waiting areas and high patients load. Thus, all patient complaints should be addressed appropriately with the goal of improving care and boosting patient satisfaction.

Managers of health services recognize that many aspects including the social, cultural, affect different pattern of medical practice and economic background in which the service is taking place. Thus, it was noticed that dissatisfaction was often due to poor communication and exchange of information between patient and health providers as well as physicians, nurses and pharmacists (Qatari and Haran, 1999; Ali and Mahmoud, 1993; Al-Khaldi *et al.*, 2002; Al-Faris *et al.*, 1996). There are many barriers and differences in communication between the health providers and medical doctors, since 80% of primary care medical doctors are expatriates who cannot speak Arabic. Other difficulties and barriers of communication and understanding are not only related

to language but also to culture, habits and traditions (Qatari and Haran, 1999; Al-Khaldi *et al.*, 2002; Al-Faris *et al.*, 1996). Health team providers demonstrated that their capability to offer high-quality interpersonal care was jeopardized by many factors including the level of education in the community, need of compliance and patients' persistence on getting medicines or being transferred to hospitals (Al-Khaldi *et al.*, 2002).

Professional development strategies are also required to enhance the knowledge and skills of health team to be more cooperative with patients. Several organizational problems including poor stressful work conditions, information systems, staff income (Al-Khaldi *et al.*, 2002; Al-Shammari *et al.*, 1995), overload on physicians (Al-Khashman, 2001) lake of available technology such as internet access and shortage of resources (Al-Khaldi and Al-Sharif, 2002) accessibility of essential drugs and laboratory items (Al-Khaldi and Al-Sharif, 2002). There is also a shortage in health educators in which 8% of centers are adequately staffed for health education (Al-Khaldi and Al-Sharif, 2002). Poor coordination with other agencies and environmental health services such as sanitation of water and appropriate disposal of waste are among the difficulties facing the municipality and the Ministry of Health (Khoja and Kabbash, 1997). It is also reported that patient complaints, lack of appreciation by patients, patient pressure and patient load in which the physician has >50-60 patients to examine in 8 working hours (Al-Shammari *et al.*, 1995). All of these are additional factors that create burden on health providers and thus decrease their productivity and comfort. Further sources of stress were reported for expatriates' workers including income, cultural differences, contract terms and conditions (Al-Shammari *et al.*, 1995). Stress affects the behavior and productivity of workers. Working in a particularly substantial stressful environment may be also associated with greater risk of medical errors (Charles *et al.*, 1987).

A key factor in determining quality is the extent to which older people themselves are satisfied with both the assessment of their needs and the services provided. According to the survey provided, there were around 10% of participants over fifty which constitute a small number of the participants. Although, the number was small but there were complaints regarding the facilities available in the medical centers which are not up to their expectations. Thus, some of the main issues to be considered when designing and conducting such surveys with older users of community care services. Moreover, it may help to

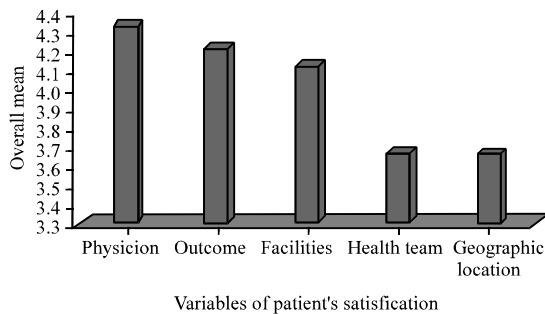


Fig. 1: Measures of patient satisfaction with different components of care and other aspects

design and administer satisfaction surveys, especially to elderly as one means of capturing their needs to serve them better.

Patient satisfaction is becoming increasingly popular as an indicator of the quality of health care services, including pharmaceutical services. Pharmacies turned out to be one of the lowest-rated services. Most of the participants are not aware of the benefits that the pharmacist can provide in drug education and management. The results also showed that increasing the availability of their necessary ancillary and diagnostic services (e.g., as x-rays, laboratories and dental facilities) are important steps in increasing patient access and satisfaction with these facilities.

Managers have to implement workplace strategies that encourage the motivation of health care professionals, reduce work pressure and lack of time, improve physicians' access to medical information since these factors are critical fundamentals for quality improvement of professional work and constitute an integral part of all aspects of primary care.

CONCLUSION

Primary health care involves a continuous partnership between patients and providers that deal with the majority of a population's health needs over time. The healthcare system in Saudi Arabia is developing rapidly. Studies have shown that expectations of patients are based on their experiences, environment, social background and personality. The study revealed that most of the participants gave the highest satisfied ratings to physicians and the lowest to pharmacy and lab services. To achieve a high level of customer satisfaction, there must be a healthy relationship between the service provider and the recipient of the service. Thus, providing Muslim physicians and improving the communication skills of health staff will highly encourage the utilization of services provided at the PHC in Jeddah. Prolonged waiting time, lack of information and communication with healthcare workers due to language barriers in outpatient clinics remain a challenge to the quality of care.

Results of such research on patient satisfaction and complaint information would be very useful in the design and implementation of improvement strategies of health system. Results will be given to ministry of health to be considered in its ambitious project for improving primary health care and public health in the Kingdom.

RECOMMENDATIONS

It is recommended that future study is required to plan more objective, extensive evaluation of the quality of clinical services and to highlight interventions that are effective in improving care. Moreover, efforts are needed

to strengthen infrastructure and human resources at primary health care centers. The community has to participate and take an important role in shaping the vision of primary care provision and guiding it to meet changing health needs. In Saudi Arabia, there are lack of many services that are provided in developed countries such as specialized nursing care and homemaker services that are given to citizens who are in part or entirely incapacitated. Services should be coordinated to offer continuity of care and inclusive care.

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