
Impression about healthcare services at medical hospitals in Dhamar city, Yemen

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Abstract: Health systems consist of all the people and actions whose primary purpose is to improve health. It is therefore urgent to assess current performance and to judge how health systems can reach their potential. This cross sectional study was conducted in Dhamar city, Yemen to assess the impression about level of the healthcare services. About 240 subjects agreed to participate in this study but analysis was carried out on 194 subjects who provided complete data on the variables of interest to this study. Participates satisfaction was measured using a semi-structured worker/patient judgments questionnaire. Participates were asked to supply the following information about themselves: age, sex, marital status, occupation, level of education, types of the hospital; employment, and monthly income. The overall level of satisfaction was assessed on a three point scale: 1= poor, 2= fair, 3= good. The results of the current study found that private hospitals have higher overall healthcare quality than public hospitals. This study indicated that patient of private hospitals are more satisfied and feel more trust in healthcare service provider than public hospitals. The result of the present study provided insights to both health care providers and hospital managers to improve service quality and patient satisfaction in the hospital environment in Yemen.

Keywords: Hospital, Socio-Demographic Characteristics, Healthcare, Services, Yemen

1. Introduction

Health is essential need for public due to a healthy people is an important resource in a society. It is the responsibility of government to provide health care to all people in equal measures and to ensure the fulfilment of the health needs of entire population. Primary health care is being adopted as a basic mechanism for the provision of health care in the world. Therefore, the World Health Assembly stated that governments and communities should work towards the accomplishment of a level of health for all peoples of the world. This would permit them to lead a socially and economically productive life (1-5).

In many developing countries, the health status is still miserable and unacceptable. A large region in developing countries is underprivileged to access to simple health care.

The services delivered by the health care providers are not up-to the level of need and perception of the clients. In recent years the World Bank and other donor agencies have been advising developing countries to ensure that limited resources not only have an optimal impact on the population's health at affordable cost but also that health care services are expected to respond directly patients' preferences and demands (5-7). As the hospitals are only part of the healthcare system, health advocates have stated that primary healthcare infrastructure has to strengthen prior to hospital closures to avoid this type of congestion and imbalance in care (7).

Worldwide, patients play an important and vital role in health care policy decisions and their assessment of care can be used as a tool or measure for quality improvement (8-9).

The views and perceptions of these patients have an impact on the overall success of health care systems. Furthermore, it is used as an indicator that recognized by managers for making organizational changes and improvements in their performance. Gathering the views and perceptions of patient is a key feature of recent developments in society and the health care systems has identified methods for assessing the views of patients, especially in the last decade (10).

Recently developing countries influenced heavily by developed countries to evaluate the quality of health care services (11-12). Many factor effect on patient satisfaction such as overall quality, trust, reputation, continuity, competence, information, organization, facilities, attention to psychosocial problems, humaneness and outcome of care (13). All of these factors have high influence on service quality of health care organizations and at the same time can influence the satisfaction level. Additionally, include the structure, process and outcome of care as well as patient socio-demographic and attitudes and expectations concerning medical care (14-15).

Due to technological advancement in the recent years, health care service provider's practices have also changed dramatically. Health care system is now a challenge for every government, state, political parties and insurance agencies due to high competition in field. The health care system that was dominated by public hospitals is now provided increasingly by private sector. Till now, there is a lack of published data regarding the healthcare services satisfaction with quality of the healthcare in Dhamar City, Yemen. Therefore, the objectives of this study was to assess the impression about level of the healthcare services regarding demographic variables and socio-economic variables like gender, age, marital status, occupation and educational level in Dhamar City, Yemen.

2. Materials & Methods

This cross-sectional study was conducted on worker and patients received health care in public and private hospitals in Dhamar city, Yemen. Public General Dhamar Hospital, Public General Maber Hospital, Dar Alshifa Private Hospital and Quean Arwa Private Hospital were selected as an appropriate place for this research. This is due to that these hospitals are the largest public/private hospitals in Dhamar city, Yemen, which provides treatment to all types of patients.

The questionnaires had been translated into Arabic by the author, who is fluent in both the Arabic and English languages. By receiving permission from the directors/managers of the hospital, the research process was started from in-office data collection, while intensive interview training was given to two experienced interview assistants on how to deal with the current situation. A simple random sampling was used in the current study.

After a brief explanation about the structure and aims of this survey, all participants received an unidentified copy of the questionnaire. They were asked to fill the copy of the questionnaires from Juley 2014 till September 2014. The

distributed of questionnaire to the participants was through the hospital authorities. About 240 subjects agreed to participate in the study but analysis was carried out on 194 subjects who provided complete data on the variables of interest to this study.

The inclusion criteria for selection participates were as follows:

- Participates whose age ranges are from 18 years and above.
- Participates who were willing to give consent.
- Participates who have at least visited targeted hospitals' for times.

However, the exclusion criteria for selection participates were as follows:

- Participates who had mental problems.
- Participates who needed emergency attention.
- Participates who had not finished the interview process.

Participates satisfaction was measured using a semi-structured worker/patient judgments questionnaire. Participates were asked to supply the following information about themselves: age, sex, marital status, occupation, level of education, types of the hospital, employment, and monthly income. The overall level of satisfaction was assessed on a three point scale: 1= poor, 2= fair, 3= good.

Data has been collected and entered to the computer using SPSS (Statistical Package for Social Science) program for statistical analysis, (version 22; Inc., Chicago. IL). Cross-tabulations, Chi-Square and Spearman's were performed to achieve the aim of this study.

3. Results

3.1. Socio-Demographic Characteristics of Participants

Table 1. Socio-demographic characteristics of respondents.

Variables	Distribution	Percentage
Gender	Male (n=133)	68.6%
	Female (n=61)	31.4%
Age	20-30 (n=129)	66.5%
	31-40 (n=59)	30.4%
	41-50 (n=6)	3.1%
Marital status	Single (n=84)	43.3%
	Married (n=110)	56.7%
Hospital	Public (n=107)	55.2%
	Private (n=87)	44.8%
Education	Secondary (n=20)	10.3%
	Diploma (n=69)	35.6%
	Bachelors (n=102)	52.6%
	Graduated (n=3)	1.5%
Employment	Yes (n=64)	33.0%
	No (n=130)	67.0%
Income	Low (n=82)	42.3%
	Medium (n=108)	55.7%
	High (n=4)	2.1%

Socio-demographic characteristics of participants were presented in Table 1. Majority (68.6%) of the participants were male and the remaining (31.4%) were female. Concerning age

of participants, 66.5% were percentages of participants with age 20-30 years, while 30.4% and 6.1% were age's participants from 31-40 years and 41-50 years respectively. More than half (56.7%) of the participants were married, whereas 43.3% of the participants were single. With regards to educational status of participants, 53.6% of them were attended college level; while 35.6% had diploma. 10.3% of participants had secondarily school level, whereas only 1.5% was having more than collage level of education. 67% of participants were workers; however, 33% were residence patients in hospitals. Regarding the monthly income of participants, majority (42.3%, 55.7%) of the participants were low and medium monthly income respectively, while only 2.1% were high monthly income.

3.2. Cross-Tabulation of Participants' Response

Table 2 showed the percentages of participants' response about healthcare services. Nearly one-fourth (24.7%) of respondents found that the physical infrastructure of the hospital was good, whereas 16% of respondents reported that the physical infrastructure of the hospital was poor. The

highest percentage of respondents about physical infrastructure of the hospital was fair (59.3%). Concerning participants' impression about hospital, 14.9% of respondents noticed that hospitals good, while 25.3% found that quality of services supplied by hospitals was poor. Once more, the highest percentages found that quality of services supplied by hospitals was fair. With regards to degree of the attention for patient's needs, the highest percentage was fair (47.4%), while 47.2% of response found that the attention for patient's needs was poor. The lowest percentage for attention for patient's needs (13.4%) was good.

Table 2. Cross-tabulation of participates' response about healthcare.

	Participates response		
	Poor	Fair	Good
Physical infrastructure of the hospital	16%	59.3%	24.7%
Impression about hospital	36.6%	46.4%	16%
Level of the attention for patient's needs	25.3%	59.8%	14.9%

3.3. Participates' Satisfaction with Physical Infrastructure of the Hospital

Table 3. Effect of socio-demographic characteristics on participates' response about physical infrastructure of the hospital.

Variables		Participates response			p-value
		Poor	Fair	Good	
Gender	Male (n=133)	7.2%	40.2%	21.1%	.001
	Female (n=61)	8.8%	19.1%	3.6%	
Age	20-30 (n=129)	9.8%	36.6%	20.1%	.070
	31-40 (n=59)	6.2%	20.6%	3.6%	
	41-50 (n=6)	0.0%	2.1%	1.0%	
Marital status	Single (n=84)	4.1%	27.8%	11.3%	.099
	Married (n=110)	11.9%	31.4%	13.4%	
Hospital	Public (n=107)	9.3%	37.6%	8.2%	.002
	Private (n=87)	6.7%	21.6%	16.5%	
	Secondary (n=20)	0.5%	6.7%	3.1%	
Education	Diploma (n=69)	6.7%	20.1%	8.8%	.625
	Bachelors (n=102)	8.8%	30.9%	12.9%	
	Graduated (n=3)	0.0%	1.5%	0.0%	
Employment	Yes (n=64)	7.7%	20.6%	4.6%	.019
	No (n=130)	8.2%	38.7%	20.1%	
Income	Low (n=82)	6.7%	29.9%	5.7%	.020
	Medium (n=108)	9.3%	28.4%	18.0%	
	High (n=4)	0.0%	1.0%	1.0%	

Participates' who did not get all the required items/services from the hospital were less satisfied than their counterparts. Results of testing of some variables (i.e. gender, hospitals, employment, income) showed significant differences in patient perceptions among hospitals sector and participates' characteristics ($p < 0.05$) as shown in Table 3. On other hand, age, education level, and marital status of participates' did not effect on response about physical infrastructure of the

hospitals ($p > 0.05$) as shown in Table 3.

3.4. Impression of the Participates about Hospitals

With respect to the relation between gender of participates and impression about quality of hospital services, the χ^2 value is .028 which is lower than .05 (Table 4). However, results of other testing variables showed no significant difference in the impression about quality of hospital services ($p > 0.05$) as

presented in Table 4.

Table 4. Effect of socio-demographic characteristics on participates' response about impression about hospital.

Variables		Participates response			p-value
		Poor	Fair	Good	
Gender	Male (n=133)	16.0%	39.2%	13.4%	.028
	Female (n=61)	9.3%	20.6%	1.5%	
Age	20-30 (n=129)	15.5%	37.6%	13.4%	.078
	31-40 (n=59)	8.8%	20.1%	1.5%	
	41-50 (n=6)	1.0%	2.1%	0.0%	
Marital status	Single (n=84)	9.3%	25.3%	8.8%	.158
	Married (n=110)	16.0%	34.5%	6.2%	
Hospital	Public (n=107)	15.5%	34.0%	5.7%	.114
	Private (n=87)	9.8%	25.8%	9.3%	
Education	Secondary (n=20)	2.6%	6.2%	1.5%	.996
	Diploma (n=69)	9.3%	21.1%	5.2%	
	Bachelors (n=102)	12.9%	31.4%	8.2%	
	Graduated (n=3)	0.5%	1.0%	0.0%	
Employment	Yes (n=64)	8.8%	21.1%	3.1%	.310
	No (n=130)	8.2%	38.7%	20.1%	
Income	Low (n=82)	11.9%	24.2%	6.2%	.535
	Medium (n=108)	13.4%	33.5%	8.8%	
	High (n=4)	0.0%	2.1%	0.0%	

3.5. Level of the Attention for Patient's Needs

Participates response selected from private hospitals exhibited significantly better in level of the attention for patient's needs ($p < 0.05$) as reported in Table 5. Besides, gender of participates effect on response about level of the

attention for patient's needs ($p < 0.05$) as seen in Table 5. Conversely, other variables (i.e. education, age and marital status) did not effect on level of the attention for patient's needs ($p > 0.05$) as seen in Table 5.

Table 5. Effect of socio-demographic characteristics on participates' response about level of the attention for patient's needs.

Variables		Participates response			p-value
		Poor	Fair	Good	
Gender	Male (n=133)	22.2%	36.1%	10.3%	.016
	Female (n=61)	17.0%	11.3%	3.1%	
Age	20-30 (n=129)	23.7%	30.9%	11.9%	.089
	31-40 (n=59)	13.4%	15.5%	1.5%	
	41-50 (n=6)	2.1%	1.0%	0.0%	
Marital status	Single (n=84)	14.4%	21.6%	7.2%	.262
	Married (n=110)	24.7%	25.8%	6.2%	
Hospital	Public (n=107)	24.2%	26.8%	4.1%	.021
	Private (n=87)	14.9%	20.6%	9.3%	
Education	Secondary (n=20)	2.1%	7.7%	0.5%	.085
	Diploma (n=69)	13.9%	16.0%	5.7%	
	Bachelors (n=102)	23.2%	22.2%	7.2%	
	Graduated (n=3)	0.0%	1.5%	0.0%	
Employment	Yes (n=64)	16.0%	14.9%	2.1%	.054
	No (n=130)	23.2%	32.5%	11.3%	
Income	Low (n=82)	18.0%	21.1%	3.1%	.299
	Medium (n=108)	20.6%	25.3%	9.8%	
	High (n=4)	0.5%	1.0%	0.5%	

3.6. Correlation between Socio-Demographic Characteristics and Participates' Response about Healthcare Services

Table 6 showed the correlation between socio-demographic

characteristics and participates' response about healthcare services. There were correlation between gender participates' response about healthcare services ($p < 0.05$). However, level of education and marital status don't associated with participates satisfaction. There is a relationship between level

of income and participates' response about infrastructure of the hospital ($p < 0.05$). Types of the hospitals and employment showed correlation with regard to physical infrastructure of the hospital and level of the attention of worker for patient's needs ($p < 0.05$). Furthermore, age of participants showed correlation with regard to impression about the hospitals and level of the attention of worker for patient's needs ($p < 0.05$).

Table 6. Correlation between socio-demographic and participates' response about healthcare services.

Variables	Physical infrastructure of the hospital	Impression about hospital	Level of the attention for patient's needs
Gender	-.268**	-.149*	-.194**
Age	-.140	-.158*	-.161*
Marital Status	-.105	-.125	-.117
Hospital	.194**	.128	.163*
Education	-.043	.005	-.068
Employment	.202**	.073	.165*
Income	.169*	.048	.115

**Correlation significant at the 0.01 level (2-tailed)

*Correlation significant at the 0.05 level (2-tailed)

Table 7. Correlation of participates' response about healthcare services in hospitals.

Variables	Infrastructure of the hospital	Level of the attention for patient's	Impression about hospital
Infrastructure of the hospital	---	.412**	.471**
Level of the attention for patient's	.412**	---	.513**
Impression about hospital	.471**	.513**	---

**Correlation significant at the 0.01 level (2-tailed)

*Correlation significant at the 0.05 level (2-tailed)

4. Discussion

Healthcare is one of the most important components in human life. Disease or illness can prevent a person from doing a host of activities one could have easily done when very strong. Healthcare is normally defined as the management or treatment of any health problem through the services that might be offered by medical, nursing, dental or any other health related service provider (7).

Most of the health problems require intensive medical treatment and personal care which normally are not available at the patients' home or in the clinic of a doctor. The hospital, a major social institution, offers considerable advantage to both patient and society. It is the place where a large number of professionally and technically skilled people apply their knowledge and skill with the help of world class expertise, advanced and sophisticated equipment and appliances (4).

General speaking, the finding of this study appears that participates response might depend on their age, gender, types of hospitals, monthly income and educational level. However, the result of the study showed no significant relationship between participates response and education level, and marital status. The findings of this study are consistent with some previous studies that found a significant relationship between ages and participates satisfaction (16), gender and participates satisfaction (17), and education level and participates satisfaction (18). This disparity between studies might be explained by the fact that patients' needs and desires (or

Table 7 showed correlation among participates' response about healthcare services in hospitals. There was association among participates response to the infrastructure of hospitals, impression about hospitals and level of attention for hospital services ($p < 0.05$).

wishes) are shaped by their socio-cultural system in which the health care system is founded (19) and it is conceivable that health care consumer behavior may also vary from one culture/nation to another. Additionally, the roles of internal health service provided were considered relevant because the quality of healthcare delivered to patients of the hospital is determined by the working relations of the various functional areas, the internal structures, operational systems in the hospital as well as the quality of services delivered by internal service providers. It was observed during the study that there is a chain of working relationship between internal service providers and internal service consumers of the hospital.

Another time, in this study, the respondents who are board and management members agree that the hospital has the potential to do better in improving consumer care and satisfaction if the necessary systems are put in place. According to them some of the challenges facing the hospital are logistics, inadequate health professionals and inadequate infrastructure compared private healthcare providers.

5. Conclusions & Recommendations

It can be concluded that that private hospitals had higher overall healthcare quality than public hospitals. The findings of the current study indicated that respondents of private hospitals were more satisfied and feel more trust in healthcare service provider than public hospitals.

This study will provide a guideline for healthcare provider

and hospital managers in Dhamar City for the allocation of efforts to maximize patient satisfaction and to improve the perceived quality of healthcare services. It was realized that the management and board of the hospital are self-assured to improve infrastructure of the hospital and introduce more specialist services to serve their consumers better. This, in turn, will improve the quality of the health services for population in Dhamar city, Yemen.

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