CLITENTS' SATISFACTION WITH REFERRAL SYSTEM IN KARBALA

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ABSTRACT

Referral is a dynamic process and it had been recognized as crucial since the Alma Ata declaration in 1978. Hospitals are overcrowded with patients who could be more cheaply treated in smaller facilities is a common feature of poorly functioning Referral System (RS). Client Satisfaction (CS) is an important parameter in the assessment of health care quality. A descriptive cross sectional study conducted to measure CS with RS in Karbala province in Iraq. A special questionnaire based on 5 points Likert scale prepared for this purpose and been testes in a pilot study. T test were used to compare means of satisfaction. A total 726 clients from four hospitals and eight randomly selected Primary Health Care Centers (PHCCs) were interviewed. The mean age of the group was 33.4±9 years and females form 56.3% of clients. CS with RS was 19% strongly satisfied, 45.7% satisfied, 7% fairly satisfied, 22.2% dissatisfied and 6.3% strongly dissatisfied. On a score of five the overall satisfaction with RS was 3.49±1.21. Females had higher satisfaction with RS than males (p = 0.004), also PHCCs clients showed higher satisfaction than hospitals clients (p = 0.009).

1. INTRODUCTION

Primary Health Care (PHC) introduced as the best strategy for health service delivery by WHO and the PHC values to achieve health for all require health systems that: "Put people at the center of health care" (WHO, 2008). In many health systems, the general practitioner or primary health care gatekeeper role is considered a vital component of demand management, restricting access to secondary care based on identified need, thus restraining healthcare costs (Clarke *et al.*, 2010). Health care systems are often designed to encourage caretakers to seek care first at the primary level and then be referred, if necessary, to a higher level of care (Cervantes *et al.*, 2003).

Referral is a dynamic process (Jahn and de Brouwere, 2001), a functioning Referral System (RS) is a critical part of an appropriate health care delivery system (Font *et al.*, 2002) and it had been recognized as crucial since the Alma Ata declaration in 1978 (Hussein *et al.*, 2011). The development of effective patient RS is one of the

important public health issues in developing countries (Omaha *et al.*, 1998). Patients are referred to specialist care when investigation or therapeutic options are exhausted in primary care and more specialized care is needed (Grimshaw *et al.*, 2005).

Hospitals are overcrowded with patients who could be more cheaply treated in smaller facilities is a common feature of poorly functioning RS (Stefanini, 1994). While the primary function of hospital is to provide complex clinical care to patients referred from lower levels (Hensher *et al.*, 2006) and access to it should be through Primary Healthcare Centers (PHCCs), except for emergency cases where patients may access the hospital directly via the hospital's emergency department (Rasoulynejad, 2007). Care provided by specialists compared with that provided by generalists is more costly due to the addition of expensive tests and highly selective treatments (Guevara *et al.*, 2011).

Strengthening of the RS would contribute to high standards of care by limiting over medicalization (Sweeney, 1994); also it is of particular importance in

pregnancy and childbirth (Jahn and de Brouwere, 2001; Murray *et al*., 2001; Pembe *et al*., 2010). Many studies showed that nearly 5% of PHC visits include a referral (Forrest *et al*., 2002; 2006; Kordy *et al*., 1992).

Under optimum conditions, up to 85% of all patients can be treated at primary level (Gorgen *et al*., 2004), while Forrest *et al*. (2007) refers to that 63% to 82% of patients referred from primary care settings ultimately attend a consultation with the type of specialist to whom they were referred. On the other hand Simba *et al*. (2008) find that up to 72.5% of patients at hospital were self-referral. Forrest *et al*. (2002) indicate that obtaining advice was by far the most common reason for referral and in some cases, physicians referred because patients requested to see a specialist.

Patient or Client Satisfaction (CS) has emerged as an increasingly important parameter in the assessment of health care quality (Bamidele *et al*., 2011) and it's an important issue both for evaluation and improvement of healthcare services (Ahmad *et al*., 2011). Also Sohrabi and Albalushi (2011) refered to that low CS is associated with lower trust in caregivers and greater chance of physician change results in lesser continuity of care. Consequences of low-perceived quality of care include poor compliance with treatment and advice, failure to pursue follow-up care and dissuading others from seeking care (Hansen *et al*., 2008).

CS is a very important part of any clinical practice therefore it is imperative to consistently undertake surveys in the community or facility to introduce better services (Ahmad *et al*., 2011). CS with PHC services has been measured in many countries with a wide range of methods including a questionnaire that was based on five-point Likert scale (Albalushi *et al*., 2012).

Karbala province and its center Holy Karbala City, (105 km to the southwest of Baghdad) is an ancient historic city, with a population of about 1.100.000 people. Its well-known for having the shrine of Imam Al-Hussein (the grandson of Profit Mohamed) who had been murter with his brothers, sons and fellows in Karbala land in 7th century AC and every year tens of millions of Muslims visit the city, also the city host frequent big mass gathering (Millions Visit) each year including the Arbaeen visit which is almost the biggest annual mass gathering in the world, with more than ten millions person gathered in Karbala in last three years on 18th to 20th of Safar Arabic month.

In July 2008, after months of preparation RS was reactivated in Karbala by Karbala Health Directorate, few months before it reactivated all over Iraq by Ministry of Health (MOH). At beginning of the implementation, there was strong opposition for RS by many clients and officials, that affects its performance and still there is some opposition.

This study aims to measure clients' satisfaction with Referral System and process in Karbala.

2. MATERIALS AND METHODS

A descriptive cross sectional study conducted. Patients or clients whom had been referred previously at least for one time were included in the study and been interviewed at the Primary Health Care Centers (PHCCs) or at referral hospitals and the questionnaire been filled. Mothers or accompanying persons of child patients were included also. A sample size of 710 (353 PHCC clients and 346 hospital clients) were calculated using Epi Info program version 7, "sample size for population survey" depending on number of clients attending hospitals and PHCCs selected within 3 months from last year and an expected referral rate of 5%.The sample size increased by 5% to overcome any refusal for participation.

The survey conducted for the period from 15th of October 2010 to 15th January 2011, a special questionnaire prepared for the purpose of the study based on direct interview with clients. It's composed of two parts, the first include socio-demographic data that include: Age, gender, residence (urban or rural), marital status, occupation and educational level. Second part include 12 closed ended question, based on 5 points Likert scale for evaluating opinion in regards to RS and performance of PHCCs and hospitals. Questionnaire had been tested by a pilot study included 20 clients that not included in final study, a little revision done and questionnaire finalized after been approved by two Community Medicine experts.

Twelve students from College of Medicine-Karbala University- 4th year class where trained on questionnaire filling, data collection and on how to make an interview and they perform the interview of clients, each interview take between 8-10 min to be completed.

Four hospitals of total 5 in Karbala and 8 major Primary Health Care Centers (PHCCs) randomly selected from the total 28 were included in the study (MOH, 2011), from all four Health Districts, in Karbala, taking in consideration the distance from hospitals. A small hospital and a PHCC in Ein-Altamr area were excluded as they were in remote rural region (70km away from Karbala).

Administrative approval on research conduction was obtained from Karbala University-College of Medicine and Karbala Health Directorate. Oral informed consent taken from each interviewee at beginning of interview and those whom refuse to participate in the study were excluded, so eight clients refuse to participate in the

study (about 1% of total sample), clients whom not been referred previously were not included in the study.

Answers of five-point Likert scale for areas of satisfaction were coded as: Strongly satisfied: 5, satisfied: 4, fairly satisfied: 3, dissatisfied: 2 and strongly dissatisfied: 1; then the mean of every area were estimated. Data presented and analyzed using SPSS program version 15, Student t-tests were used for data analysis. P value less than 0.05 considered statistically significant.

3. RESULTS

A total 726 clients where interviewed, 369 PHCCs clients and 357 hospital clients, there mean age 33.37±13.01 years with no significant difference between mean ages of PHCCs and hospitals clients.

Socio-demographic characteristics of the study group are shown in **Table 1**, 317 (43.7%) males and 409 (56.3%) females, 85% of them live in urban area. Regarding marital status (77%) were married (20%) were singles and 3% were widowed or divorced. For education; 15.4% had no or little education (<6 years), 36% finish primary school (6-8years), 24.9% finish secondary school (9-11 years) and 23.7% had a higher education (>12 years). Concerning their occupation; housewives form 43.8% of them, workers 20.4%, governmental employee 20% and other occupations including students and non-workers forms 15.8%.

History of previous refer ranges 1-50 times, 466 (64.2%) had been referred once previously 260 (35.8%) been referred for more than one time, of those 3 clients indicated that they had been referred for more than 20 times previously.

The overall satisfaction of clients with referral system was 64.7% of (19% strongly satisfied, 45.7% satisfied), on the other hand 28.5% where dissatisfied (22.2% dissatisfied, 6.3% strongly dissatisfied), while those whom fairly satisfied forms 7%, as shown in **Fig. 1**.

About 49% of clients indicate that they had some difficulties in referral and 65.4% of respondent indicate that they prefer to go directly to hospitals, while 34.6% prefer to go to PHCCs. More than 65% of clients where satisfied with PHCCs work and less than 11% of them were dissatisfied with its work and 74% of respondent believe that hospitals work better than PHCCs. On the other hand nearly 60% indicate presence of some shortage in PHCCs work and 45% indicate presence of some shortages in hospitals works. As an indicator of effectiveness of RS 88% indicate that they had the special family cards that been disseminated with the implementation of the program and 61% had the card with them. While just 66% knows that emergency cases do not require referral.

On a score of five the overall satisfaction with referral system was 3.49±1.21. The mean age of the satisfied group was 32.86±13.32 years while the mean age for non satisfied group was 35.19±12.1 years and there was a significant statistical difference between the two means (p = 0.032). **Table 2** shows the relation between mean satisfaction with RS and certain variables. There was significant statistical difference (p<0.05) for gender where females shows higher mean of satisfaction than males and also it was significant for site of interview were PHCCs clients showed higher satisfaction mean than hospital clients. The mean satisfaction index shows no statistical significant difference in regards to residence, marital status, education level, occupation and number of previous refers.

Table 1. Socio-demographic characteristics of clients

	Variable	No. of cases	Percentage
Gender	Male	317	43.7
	Female	409	56.3
Residence	Urban	628	86.5
	Rural	98	13.5
Marital status	Single	144	19.8
	Married	559	77.0
	Divorced\widow	23	3.2
Education	<6 years	112	15.4
	6-8 years	261	36.0
	9-11 years	181	24.9
	>12 years	172	23.7
Work	Housewife	318	43.8
	Worker	148	20.4
	Governmental employee	145	20.0
	Others	115	15.8

Table 2. The relation between mean satisfaction for referral system with different variables

	Variable	Number (N = 726)	Mean of satisifaction	Standerd deviation	P value
Gender	Male	317.00	3.34	1.26	0.004
	Female	409.00	3.60	1.16	
Residance	Urban	98.00	3.32	1.34	0.128
	Rural	628.00	3.52	1.18	
Marital status	Single	144.00	3.54	1.16	0.477
	Married	559.00	3.47	1.23	
	Divorced\widow	23.00	3.74	0.92	
Education	<6 years	112.00	3.58	1.12	0.479
	6-8 years	261.00	3.50	1.14	
	9-11 years	181.00	3.53	1.24	
	>12 years	172.00	3.37	1.33	
Occupation	Housewife	318.00	3.58	1.16	0.269
	Worker	148.00	3.43	1.18	
	Governmental employee	145.00	3.35	1.35	
	Others	115.00	3.50	1.19	
Previous Refer	Once	466.00	3.50	1.20	0.694
	More	260.00	3.47	1.23	
Site of interview	PHCC	369.00	3.60	1.11	0.009
	Hospital	357.00	3.37	1.29	
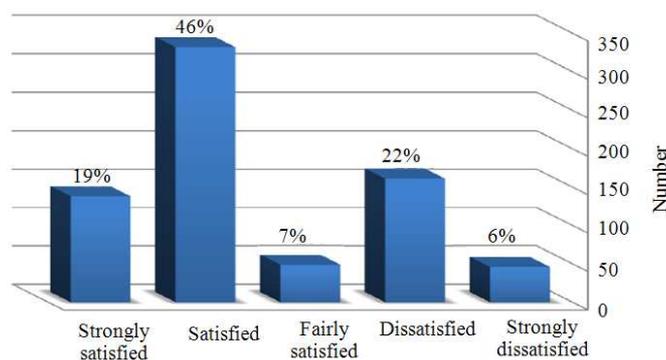
Fig. 1. The degree of clients' satisfaction with referral system

4. DISCUSSION

Surveys of client, patient, are an incresingly important issue that had evaluated for various areas of health and health services (Farzianpour *et al*., 2013; Abu-Dalbouh, 2013), also customer or user satisfaction Surveys are done in many sectores other than health for measuring performance of that sector (Hossain and Suchy, 2013; Lo, 2012; Balakrishnan *et al*., 2011; Najib *et al*., 2011; Sarlak and Fard, 2009; Larsen and Blair, 2009).

In this study, 56.3% of the interviewees were females and this was none surprising, as in Iraq females visit health facilities more than males, for their own health issues or for caring of their children and this goes with the 58% females rate of clients in Karbala in 2010

(MOH, 2011) and also with (Shabila *et al*., 2012; Albalushi *et al*., 2012; Damanhouri, 2011; Afsar and Younus, 2004; Sa'adoon *et al*., 2008) studies where females forms 52.4, 58, 62.5,62.8, 55.1% respectively.

The mean age was 33.37±13.01 years, this is older than the mean age of Albalushi *et al*. (2012) were the mean age was 27.5±8.3 years and younger than (Afsar and Younus, 2004; Greenhow *et al*., 1998) where the mean ages were 37.5 and 43 years respectively.

In current study the majority of clients (64.7%) were satisfied with the program and this is an important result, as no previous study done to estimate CS and this will help in pushing the implementation of RS foreword. Al-Tawil *et al*. (2011) find a satisfaction rate of 69.3% while in Greenhow *et al*. (1998) the satisfaction rate was

65.3% and these satisfaction rates are close to our result. On the other hand those who were not satisfied was 28.5% and this is less Afsar and Younus (2004) study were dissatisfied form 31.6%.

The overall mean satisfaction with referral system on scale of 5-points was 3.49 and this goes with the study of Mansour and Al-Osaimi (1993) were the satisfaction was 3.55.

There was a significant association between satisfaction with RS and age, where younger age appear to be more satisfied with RS. This result is different than other studies that shows an association between satisfaction with increasing age (Jiang *et al*., 2009; Greenhow *et al*., 1998). Also there was significant association with gender as females shows higher satisfaction than males. Pappa *et al*. (2013) find the opposite, while Sa'adoon *et al*. (2008) and Sohrabi and Albalushi (2011) found higher satisfaction with health services among females but it wasn't statistically significant. Last two studies find significant association between level of satisfaction and lower education levels, although this study shows similar relation but it was not statistically significant. Other socio-demographic characteristics shows no significant association.

Also there was no statistical difference in satisfaction between those who were referred previously once and those referred frequently. The satisfaction among PHCCs clients was significantly higher than that for Hospitals clients and this could be explained by that hospital clients were more used to go to hospitals directly and to be more oppositional to referral system and this could be obvious as 65% of clients in this study indicate that they prefer to go directly to hospitals.

Hooper *et al*. (2005) indicates that it is common for doctors not to write a prescription or make a referral which patients were expecting and these unmet expectations are associated with increased patient dissatisfaction. Similar issues seems to decrease the satisfaction of clients with RS, as they used to visit hospitals directly for years without a need for a referral from a PHCC and as majority believe that hospitals work better, have better investigations, medications, diagnostic tools and more specialized doctors in it.

5. CONCLUSION

Referral system is an essential program in health services delivery and its implementation in Karbala and Iraq, though facing some opposition from many groups but it is accepted by majority of clients. More efforts needed to improve the program, by supporting the PHCCs, increasing awareness about program such as emergency cases non-inclusion and supporting feedback from the hospitals. Further studies are needed to explore other aspects of program, PHCCs work and client satisfactions with different health services.

6. ACKNOWLEDGEMENT

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