Utilization of health services in a sample of PHC centers in Baghdad

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Abstract:

Background: As primary health care is a sub-system of the national health system; its evaluation would reveal the function state and condition of the system as a whole, and addresses the civilization state of the country as well.

Objective: to Figure out the degree of utilization for the beneficiary health users, with overall and detailed clients' satisfaction with primary health care services provided.

Methods: This cross-sectional survey is a client utilization and satisfaction assessment targeting two types of clients; Females from outpatient families visiting health centers (HC), and clients outside HCs (teachers from nearby primary schools). The 17 HCs were selected by a simple random technique from all the health sectors in Baghdad. Two primary schools near each HC were chosen to study the opinion of teachers as a beneficiary group.

Results: Seventy nine percent of the clients were satisfied and 21% were unsatisfied. Although the overall satisfaction indicator was high (79%); all other satisfaction indicators have poor scores (<70%): drug use instructions (64%), patient-Dr relations (50%), consultation time and clinical exam competency (45%), waiting time (42%), and only 36% were satisfied with health education and disease explanation offered by health providers.

Fifty three percent of the inquired school-teachers use to consult the private clinics as a first choice, 16% go to a HC, 15% go to the afternoon people's clinic, and 12% prefer the governmental hospital outpatient clinic. A minority (4%) run for by-hand treatment from the private pharmacies without a medical prescription.

Conclusion: In spite of lack of health education, incompetent medical exam, long waiting time, poor Dr-patient relations, and unclear drug instructions, health clients show an adequate overall satisfaction with health services.

Keywords: Utilization, PHC

Introduction:

Health systems operate in a complex and dynamic environment, necessitating contingency planning to account for variable turbulence, rapid development of technology, and demands of more involved community[1].

Available assessments indicate that access to primary care in Iraq is inadequate, the level of perceived quality is low, the state of physical infrastructure is not satisfactory and requires major repairs, equipment is grossly deficient, drug supply is very short, and essential services are not always available [2].

The aim of the study is to Figure out the degree of utilization for the beneficiary health users, together with overall and detailed providers and clients' satisfaction with primary health care services provided.

Methods

The study is a cross-sectional survey. It is a client utilization-satisfaction assessment (process and outcome) targeting the out-patient clients and school teachers.

Sampling:

The 17 HCs were selected by a simple random technique from all the health sectors in Baghdad. The health service beneficiary groups of people were targeted via a client survey. Two types of clients were differentiated**:**

Those who are actually utilizing primary health services (seen inside HCs); ten families (on average) were selected randomly (the total was 174 females).

Clients from the community (school-teachers): As females (in Iraqi community) are more in contact and concern with HCs services than males, we decided to limit the sampling for female clients only. Two primary schools (on average) that are nearest to each targeted HC were included making a total sample of 35 schools (only 32 agreed).

The schools selected were covering wide-spread geographical locations including all sectors of Baghdad (the capital) through a simple random technique.

The total sample of clients inquired (inside the HCs and school-teachers) was 799.

Sampling procedure was carried out as shown in the flow-chart **(Fig 1)**:

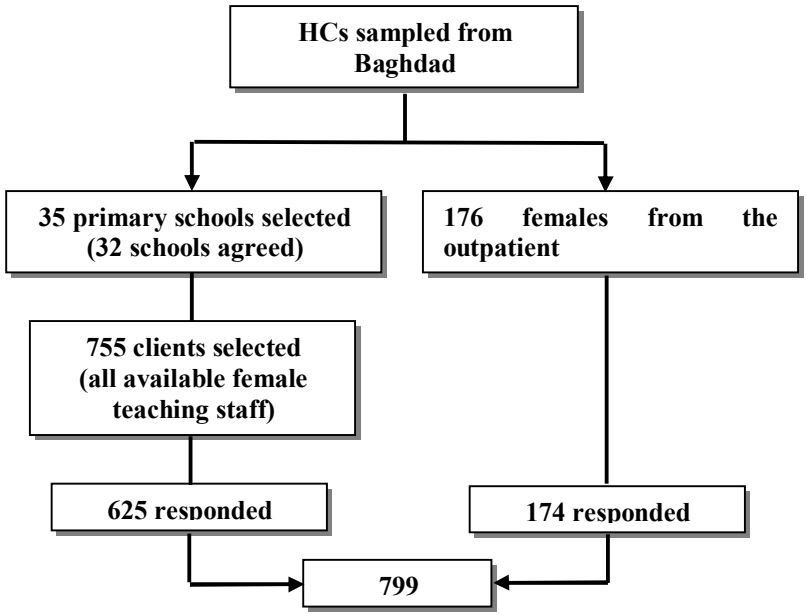

Fig 1 Clients' sample frame

Community surveys on health service consumers should be ideally carried out through a house-to-house survey; this is unfortunately not feasible in Iraq under the current circumstances so school-teachers were chosen.

The form included some socio-demographic, HC service utilization and satisfaction variables. It was anonymous, ensuring confidentiality and enhancing response. Also there were questions on HC service development opinions.

Scoring criteria depended on the percentage number of positive answers for each indicator in the 17 HCs studied, as follows:

Score of 90% or above indicates good standard score.
Score of 70-90% indicates adequate score.
Score under 70% indicates poor score[3].

As a recheck, overall satisfaction was also asked about, and scored by three grades (very satisfied, satisfied, not satisfied).

Health reform opinions:

The clients were asked if they were willing for changes in health system, through asking for their opinions on application of family health care and health insurance systems. As the meaning of these terms might not be so clear for them, an explanation was offered in the questionnaire, to enhance response validity.

Data feeding followed by descriptive and analytic statistics, were carried out utilizing the "SPSS for windows" software [4].

Numerical data results were often rounded to the nearest integer, unless the presence of decimals offers an additional meaningful result. Accepted probability cutoffs for significance were set to be < 5% to > 1% denoting significant, and < 1% denoting highly significant statistical test results.

Results:

The schoolteacher sample size was (755); of them only 625 responded, 174 females were interviewed from outpatients. Total clients' response rate was 86%.

Two thirds of the clients were of young age (second and third decades). Also two thirds of clients were secondary school graduates (Tab 1). Thirty percent have no children, 30% have 1-2 children, and 37% have 3-6 children.

Satisfaction grades:

Twenty-one percent were dissatisfied, 65% were more or less satisfied, and only 14% were very satisfied.

Satisfaction indicators:

Six indicators were used (Fig 2). In spite of adequate score for the overall satisfaction (79% of

clients), all other satisfaction indicators have a poor score (<70%), drug use instructions (64%), patient-Dr relations (50%), consultation time and clinical exam competency (45%), waiting time (42%). Finally, only 36% are satisfied with health education and disease explanation offered by health provider

Tab 1Clients' Age groups & education status [a]

	Education grade completed							
	<secondary		secondary		>secondary		Total	
	No.	%	No.	%	No.	%	No.	%
<20yrs	7		8		0		**15**	**(2)**
20-29yrs	54		144		51		**249**	**(31)**
30-39yrs	28		188		64		**280**	**(35)**
>39yrs	26		185		44		**255**	**(32)**
Total	**115**	**(14)**	**525**	**(66)**	**159**	**(20)**	**799[b]**	**(100)**

[a] total 931 clients sample, response rate is 86%

[b] **625 female school teachers & 174 outpatient females**

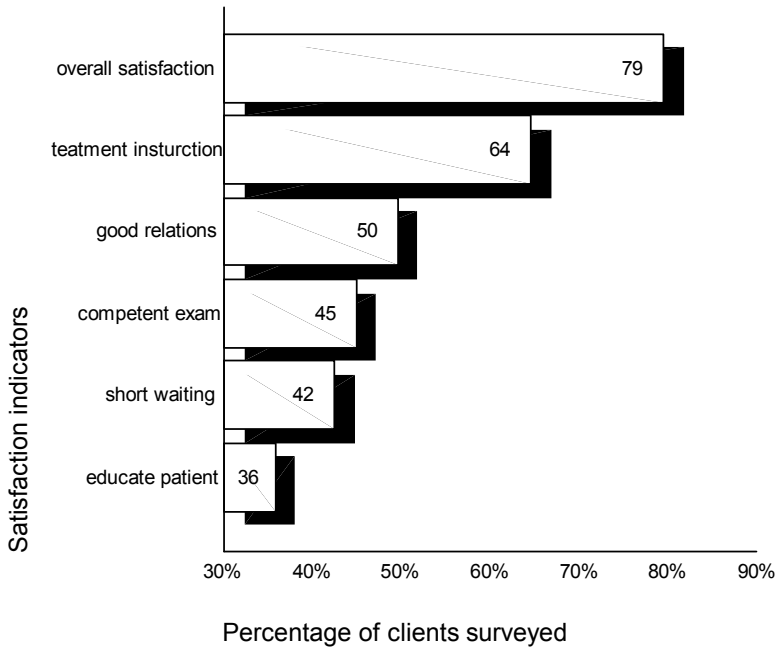

Fig 2: Clients' satisfaction indicators with HCs services All the five independent satisfaction indicators are highly significant predictors for overall client satisfaction with HCs services (Tab 2).

Tab 2: Clients' satisfaction predictors using logistic regression [a]

		Prediction score	df	P value
Predictors [b]	**Provider-client relations**	90.5	1	<.0005 (HS)
	Medical exam competency	73.8	1	<.0005 (HS)
	Treatment instruction	70.2	1	<.0005 (HS)
	Waiting time	54.8	1	<.0005 (HS)
	Patient education	41.3	1	<.0005 (HS)
Overall Statistics [c]		140.4	5	<.0005 (HS)

[a] 30 cases are excluded due to missing data (n=769)
[b] dependent variable is dichotomous (yes/no) overall client satisfaction with HCs services
[c] R square 0.18 Model Chi-square 155.05df 5 P value < .0005 (HS)

Utilization of health services:

Schoolteachers' preferences for utilizing a medical care place differ. This difference in preference was highly significant. In acute medical conditions; 53% of school-teachers surveyed consult a private clinic as a first choice and 16% go to a HC, 15% go to the people's clinic, and 12% prefer the governmental hospital outpatient clinic as the first choice. A minority (4%) run for by-hand treatment from a private pharmacy, without medical prescription **(Tab 3)**.

Informal places for health service utilization (herbal medicine, informal health people, witchcraft, and spiritual remedies) were not inquired about.

Clients were asked about the reasons of visiting the nearest HC in the last 6 months.

Fig 3 shows that 22% did not visit a HC at all, 49% of the clients visit a HC for curative services. Vaccination or antenatal care was the reason of visits in 28%

Tab 3 Preferred medical care utilization place for school teachers [a]

		No.	%	Cumulative %
Place [b]	**Private clinic**	331	(53)	53
	Health center	99	(16)	69
	Public clinic	96	(15)	84
	Hospital clinic	72	(12)	96
	Private pharmacy (by hand medicines)	25	(4)	100
Total		**623**	**(100)**	

[a] Chi-square (goodness of fit) 455.55 df 4 p< .000 (HS)
[b] other places (informal sources, traditional medicine) were not questioned

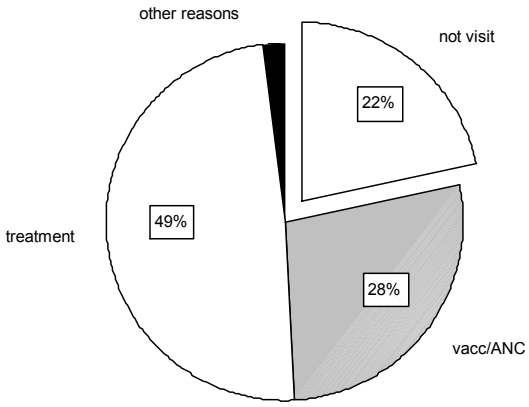

Fig 3 Reasons for visiting HC in the last 6 months

Health system reform opinions

Clients' preferences for Dr choice:

It sounds that 60% of clients want to have more freedom of choice in terms of having the right to select the Dr (a satisfying right that is lacking now). Seventy eight percent of clients prefered the application of a family health care system and seventy two percent of clients agreed that social (health) insurance system is needed. There was a highly significant relation between opinions in respect to the application of family care and social insurance systems (**Tabs 4)**.

Tab 4:Clients opinions on application of family health care system and Health (social) insurance system [a,b]

		Health insurance system					
		Disagree		Agree		Total	
		No.	%	No.	%	No.	%
Family doctor system	Disagree	69		104		**173**	**(22)**
	Agree	146		452		**598**	**(78)**
	Total	**215**	**(28)**	**556**	**(72)**	**771[c]**	**(100)**

[a] Chi-square 15.97 df 1 p< .0005(HS)
[b] Simple explanation of family health care, and social insurance was given to clients within the questionnaire.
[c] 28 clients (from 799) were excluded due to missing data

Discussion:

Not all consumers' expectations can be met, but they have rights, which all providers should respect [2]. Clients' satisfaction evaluation can contribute useful insights into the milieu in which care is provided, it highlights consumers' satisfaction towards care provided [5].

About three quarters of clients questioned are primary schoolteachers, with mostly secondary school education. Clients' satisfaction (in varying degrees) with HCs services is relatively adequate (79%).

Abdul-Abbas & Salman [6] in their study also found adequate satisfaction, as only 17% of women enrolled in ANC, were dissatisfied with the services in HCs. The causes included unavailability of drugs, long waiting time, inhuman relations, and lack of instructions for using medicines received. Higher overall satisfaction (95%) for ANC consumers was recorded by Al-Taha in Basra [5].

Several variables in a study influenced satisfaction in rural Bangladesh, as privacy, physical exam, information and advice. Socioeconomic variables on the other hand, were not influential in this study[7].

In the present study, five clients' satisfaction variables were studied: clients' health education and explaining the medical condition, waiting time, consultation time and promptness of medical exam, the patient-Dr relation, and finally instructing patients on usage of drugs given. Clients' questionnaires and interviews showed poor satisfaction results (less than 70%) for all five variables.

The relatively good overall satisfaction, in contrary to poor satisfaction observed for detailed variables in this study, was also noted by Al-Taha, the explanation she gave is that overall satisfaction was assessed via a single question, while in case of specific detailed satisfaction inquires; respondents tend to show more dissatisfaction [5]. The adequate overall satisfaction grade recorded in the present study is probably an underestimation of the real clients' dissatisfaction.

In the study of Khoja (2004) most clients showed positive satisfaction, and were reluctant to express any criticism (the so called normative effects) [8].

Clients may lack the courage to express dissatisfaction via a questionnaire (even if anonymous), due to decades of inhibiting people from criticizing and showing dissatisfaction with public services. In addition they may be embarrassed to criticize their own providers.

Another explanation to this adequate overall satisfaction is that clients perceive HCs to be good for preventive health services (e.g. vaccinations and ANC), not for curative services. This is understood from the utilization preference seen in 53% of clients, to go to private clinics (not HCs), as the first choice for medical care.

Two thirds of clients surveyed, criticize Drs in HCs of not educating the patients and not explaining the disease condition to them. Similar findings were found by other studies [5, 9], this is probably a consequence of Drs overload in HCs due to patients overcrowding, leaving no time for health education. It also reflects a low moral among health providers in public sectors.

A completely opposite attitude is seen in private clinics- sometimes even by the same providers although the overload may also be there. This controversy may reflect the failure of payment system in public services in initiating providers' satisfaction.

Waiting time:

The next drawback in HCs service, is the long waiting time perceived by 58% clients, in contrary to the IHSS project survey findings of an accepted average waiting time of 15 minutes [2]. Al-Taha also noticed that one third of clients in HCs is suffering from long waiting time [5]. There is no golden standard above which waiting time is regarded as long but when it induces clients' dissatisfaction; it can certainly be regarded as long. Long waiting negatively affects utilization by decreasing clients' moral, especially when the waiting places are unsuitable, with insufficient seats, no drinking water, and no electricity. In addition, long waits will induce overcrowding that may enhance the transmission of communicable diseases.

Waiting time can be decreased by an effective appointment system, and effective management policies in HCs. Al-Momen & Al-Nahedh suggested that related services should be located in one area of the HC to enhance mobility and to save time[3].

Long waiting time (30 minutes in rural Bangladesh HCs) was found to be an important cause for clients' dissatisfaction, even more important that short medical examination time [7].

Consultation time:

More than half clients in the present study were dissatisfied with the short consultation time, and poor medical exam. Al-Deen also noticed client's dissatisfaction with consultation time [9]. Short medical exam time does not allow effective client-provider relation, disturbs communication and prevents prompt medical examination. In addition it leaves no time for health education. All these consequences contribute to dissatisfaction.

Drs who consult more slowly, had lower prescribing rates and higher level of patient's satisfaction, although the Dr's style and orientation may be an important confounder. Increasing appointment lengths increases consultation length, verbal exchange and health promotion [10].

Although the present study does not provide clear evidence, we believe that health clients perceive short consultation time to be less annoying than long waiting time. This is because of altered clients' expectations, viewing the Dr-patient contact in HCs as an opportunity for getting medicaments. The tendency in Iraqi clients to relate health to drug consumption was also mentioned by Al-Taha [5].

Patient-Dr relations:

Only half clients were satisfied with the patient-Dr relation.

Al-Deen also noticed that many women complained about being mistreated and humiliated by health personnel [9], while Al-Taha found a small percentage of clients not using services because of ill behavior of staff, but she stated that there is always a possibility of showing more exaggerated satisfaction [5].

Aldana found the most powerful predictor for client satisfaction to be providers' behavior

(especially respect & politeness). It was much more important than provider's technical competence [7]. Fallowfield (cited WHO 1993) stated in, that poor communication skills have been reported to have adverse consequences on physical, psychosocial, and economic aspects of health care [11].

Dissatisfaction in relations with providers, and in medical exam, will probably shift more clients towards the private sector. As soon as they encounter prompt medical exam and human Dr-patient relation, the health provider portrait will be distorted. Viewing apparent differences, clients will envisage the cause to be high pay in private sector, with a negative consequence of viewing providers as "actors" running for money.

Treatment instructions:

Another important defect in health services felt by 36% of clients is that health providers (usually the pharmacy staff) do not explain the names, uses, and doses of drugs. The probable reason is the lack of pharmacist in HCs. Another cause is the endless overcrowding at the pharmacy "window".

Lack of instructions for drug use is an unsafe medical practice, especially for low educated clients. What complicates the picture more is the huge donation of humanitarian assistance drugs after the 2003 war, coming from international organizations and relief NGOs. These drugs differ in color and shape from the familiar types known to clients, and usually contain no Arabic explanation.

Utilization of health services:

The main utilization place for health services in half of clients inquired (school-teachers) was private clinic. The other half either goes to HCs, to people's clinics, or public hospital's clinics. Only a minority goes to private pharmacies seeking by-hand drugs, without medical prescriptions. Abdul-Abbas *et al.* estimated mothers' utilization for private doctors or clinics to be only one third [6]. In rural Bangladesh, 70% people think private health care is better than public [7].

It can be seen that HCs, or people's clinics can not compete with private sector to attract clients, in spite of subsidized examination and drug fees. Prices play an important role in determining utilization when the demand is elastic, as in preventive services, while for health threatening conditions; health service demand becomes inelastic, and people will seek quality care, even if this means more sacrifice in price.

As all satisfaction variables mentioned before scored poor, the resulting dissatisfaction in HCs services, will ultimately lead to underutilization, and seek for alternatives.

In addition, drugs prescribed in private clinics are easily found in private pharmacies, while the problem of drug shortage in HCs is increasingly repelling people.

The "by-hand" drug is a new phenomenon that have emerged in the last two decades when prices of private Drs went up during the sanction, clients wanted to take over the examination fees. The more educated clients go to the pharmacy and order the drugs they like, taking the advantages of laxity of legislations on selling "by hand" drugs.

The results showed a utilization average of 5033 tickets/month/100,000 (50 patients /1000/month, which is a low utilization figure. British reports suggest that from a population of 1000 adults, 750 reported an illness in an average month, and only 250 of them consulted a physician, who would be a primary care physician in 133 patients giving a primary health care utilization of 133/1000/month [12].

Utilization estimations depending on average tickets cut in HCs, reveals lower proportion. There is an average of about 18,500 clients / 60,000 catchments population, come for curative services during 6 months (about one third). Those who are able and willing to get to a HC for care may represent only a small proportion [13]. Barriers for under-utilization of health care services according to Al-Taha are crowded HCs, and lack of continuity of care [5].

It could be concluded that In spite of lack of health education, incompetent medical exam, long waiting time, poor Dr-patient relations, and unclear drug instructions, health clients showed adequate overall satisfaction with health services.

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