Assessment of Patient's Experience with the Referral between Primary and Secondary Health Care in Mosul

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Abstract:

Background: 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.

Objective: This study aimed to assess patients' experience with quality of patient referral between levels of health care.

Methods: A cross-sectional study was conducted in Mosul. A questionnaire was administered to 406 patients formally referred to al-Mosul General Hospital. Data was collected on socio-demographic characteristics of referred patients, appropriateness of referral process, and patient satisfaction.

Result: The mean age of the group was 28.25 ± 18.29 years and female's form (55.4%) of clients, (49%) believes that the referral process was appropriate. Two third of patients believe that three to four areas of the referring process was appropriate, while (65.5%) of clients were satisfied, with the treatment provided, that only statistically significant for type of referring center.

Conclusion: Patients in this study view the referrals to higher levels of care as appropriate, with a high rate of referral to obtain diagnosis, to get specific treatment, and self-requested referrals that not be explained by socio-demographic characteristics of the patients, and most of them were satisfied by services provided through referral.

Keywords: Patients 'experience; Referral; Secondary health care; Mosul; Iraq.

Introduction:

Referral system is an important component of the health care system. In public health facilities, a high number of patients' attendance has led to a huge burden on the secondary and tertiary level of the care system in terms of manpower, equipments and resources [(1)]. Referral system reducing the workload on the outpatient clinics of the hospitals, while increasing the workload of the general practice clinics of the primary health care centers PHCCs [(2)].

The goal of referral services is to ensure that patient is dealt with at the appropriate level health facility, and receives cost effective and quality management [(3)]. Thus; referral has considerable implications for patients, health care system and health care costs [(4)].

Patients are referred to specialists when investigation or therapeutic options or when opinion or advice is needed are exhausted in primary health care [(5, 6)]. During referral, there is 'a transfer of responsibility for some aspect of the patient's care' from primary to secondary care [(7)]. Optimal referring processes are crucial for the effectiveness, safety and efficiency of

medical care .and an optimal referral has a clear purpose, related to diagnosis or treatment, which is specified by the GP in the communication with the consultant [8].

Patient or Client Satisfaction has emerged as an increasingly important parameter in the assessment of health care quality and it's an important issue both for evaluation and improvement of healthcare services [9].

The health services in Iraq are provided through a network of public PHCCs and hospitals where services are provided at very low charges [10]. Although the Ministry of Health has established a system for patient referrals, in Iraq in late 2008 to ensure a close relationship among all levels of the health system, and people receive the best possible care closest to home, and to make cost effective use of hospitals and primary health care services [11]. This mechanism does not function well because of the lack of requirements for an efficient referral system [12]. At beginning of the implementation, there was strong opposition for referral system by many clients and officials, that affects its performance and still there is some opposition, but gradually it is accepted by majority of clients [13].

In developing countries, including Iraq and despite some early trials, no standard and organized referral system is yet present. Many problems include low number of physicians and family doctors, lack of diagnostic services in most health centers, inadequate record keeping, and failure to have a system to evaluate the appropriateness of referrals, which create an inefficient system of referrals and prevent the patients from receiving optimal medical care [14].

This study aimed to assess the patients' experience with quality of referral between primary and secondary health care.

Material and Methods:

This study was carried out in Mosul city, the center of Nineveh governorate. It is the second biggest city in Iraq, which is divided by Tigris River into left and right bank, and is inhabited by approximately 1807198 persons. The city served by 9 public hospitals and 28 PHCCs on both sides.

A descriptive cross-sectional study of a sample of patients referred from primary care to secondary care was conducted for the period from 1st of March to 31th of May 2014. The study was carried out at the consultation clinic of al-Mosul General Hospital, through direct interviewing patients consulting internal medicine, surgery, pediatric, and obstetrics/ gynecology clinics, includes patients referred from primary health care centers in the catchment area al-Mansour (family PHCC), al-Mammon, al-Gharbi, and other referring PHCCs.

A purposive sampling was used, and consecutive patients of not less than one hundred from each of the four consultation clinics were included in the study. Questionnaires were interview administered to patients after they had consulted with health care providers in the referral center. All formally referred patients with referral letter were invited to participate in the study after being asked to give verbal informed consent from each interviewee, or from caretakers who bring a sick child, at the beginning of interview those whom refuse to participate in the study; and those consulted without referral letter were excluded.

Researcher completed questionnaires for 406 of the 428 patients; only 22 clients (about (5%) of total sample) refuse to participate in the study, these 406

patients constituted the final sample of patients. The time needed to complete the questionnaire for each patient was nearly 10-15 minutes according to variation in the personality characteristics and educational level. A questionnaire containing two parts was developed to assess the referral process based on extensive literature review and local experts' opinions. The instrument was tested on 20 referred patients and subjected to modifications. The first part of the questionnaire included name of referring and referral facilities in addition to demographic characteristic (Age in years, gender, marital status, and educational background). The second part of the questionnaire included statements incorporated for assessment of patients' view with the current referral system:

The first statement was adopted to assess appropriateness of referral performed between primary and secondary health care services. Eight statements were adopted for assessment of quality of referral process, for each statement the appropriate response was noted. For measuring the appropriate areas of referral process, a quality score was calculated giving one score for each appropriate response, then the mean ± SD, ranging, and median of quality score were estimated.

The last statement allocated for assessment of patient's satisfaction with the services provided through referral. 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 proportion of satisfied clients were estimated, followed by studying of the association between patients' satisfaction with different variables (age, sex, education, and type of consultation clinic).

All analyses were conducted using the Statistical Package for Social Science (SPSS) version 23. The Fisher's exact test was used to test for significant association between categorical variables. A P value of < 0.05 was considered as statistically significant.

Result:

The total number of patients included in the study was, 406 patients. Their mean ± SD age was 28.25 ± 18.29 years, ranging from 0.04 to 71 years. The median was 28 years.

Table (1) showed that more than one fifth of the sample aged less than 10 years. More than half (55.4%) of the sample was females. The male: female ratio was 0.8: 1. The majority (77.4%) was married, and around half of them were of primary education. Around half (48.5%) of the referred patients were from al-Mansour primary health care center. About one quarter of the patients were referred to each of the following consultation clinics: medicine, pediatrics, surgery, and obstetrics/ gynecology.

The study showed that around half of the patients believe that the referral process was appropriate and only (19%) of them think that the referral process was inappropriate, as seen in figure (1).

For assessment of referral process quality as perceived by patients table (2a) reveals that (63.1%) of patients mentioned that they have been informed about cause of referral. In the majority of cases, referral was done by the PHCCs, and only (3.7%) of patients mentioned that the referral center had informed the hospital about the referral. Transport was only provided for (4.9%) of cases. Feedback was sent to the PHCC in only (3.4%) of referrals. The

majority of patients (81.3%) mentioned that they didn't receive treatment that is not mentioned in the referral form. More than half of patients (60.3%) mentioned that they got adequate information from the referral center regarding their illness. A quality score was calculated giving 1 score for each appropriate response, so the maximum score was 8. The mean ± SD quality score was 3.19 ± 0.97, ranging from 1 to 6. The median was 3. Thus, table (2b) reveals that around one third of patients believe four areas of the referring process was appropriately done. While (36.9%) of them believe that three areas of the process was appropriate.

Patients' satisfaction about services received revealed in table (3) that around two thirds of the patients were either satisfied or very satisfied with the treatment received, while only (6.2%) were dissatisfied with the treatment provided. There was no statistically significant association between patients' satisfaction with age, sex, education, and type of consultation clinic. The rates of satisfaction were significantly higher in the Mansour and Mammon compared with the other centers (p = 0.014) as shown in table (4).

Table (1): Distribution of patients by socio-demographic variables.

Variables	Categories	No.	%
Age (n=406)	< 10	84	20.7
	10-19	55	13.5
	20-29	70	17.2
	30-39	74	18.2
	40-49	60	14.8
	≥ 50	63	15.5
Sex (n=406)	Male	181	44.6
	Female	225	55.4
Marital status (n=305)	Single	41	13.4
	Married	236	77.4
	Divorced	7	2.3
	Widowed	21	6.9
Educational level (n=309)	Illiterate	61	19.7
	Primary	145	46.9
	Secondary	87	28.2
	University	16	5.2
Referring facility (n = 406)	Mansour	197	48.5
	Mammon	122	30.0
	Gharbi	51	12.6
	Others	36	8.9
Consultation clinic (n = 406)	Medicine	103	25.4
	Pediatrics	100	24.6
	Surgery	102	25.1
	Gynecology	101	24.9

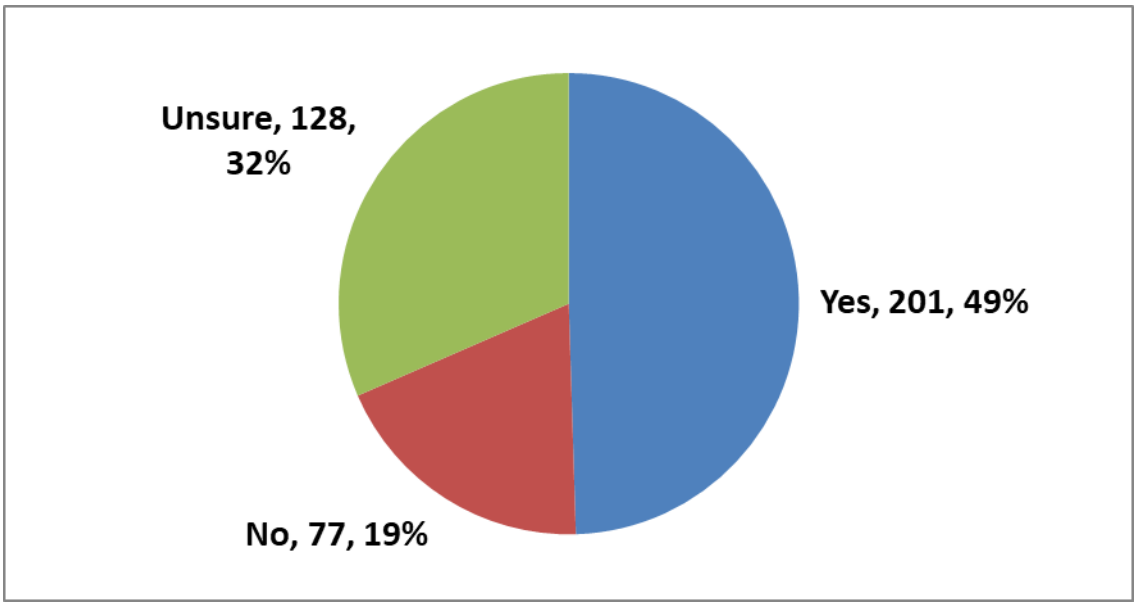

Figure (1) Appropriateness of referral as perceived by patients.

Table (2a): Assessment of referral process quality as perceived by patients.

Questions	Responses	No.	%
Have you been informed about cause of referral?	Yes*	256	63.1
	No	150	36.9
Who made the referral?	PHC center*	381	93.8
	Private clinic	25	6.2
Did the referring center inform the hospital?	Yes*	15	3.7
	No	309	76.1
	Unsure	82	20.2
Was transport provided?	Yes*	20	4.9
	No	386	95.1
Was there a feedback to referring center?	Yes*	14	3.4
	No	334	82.3
	Unsure	58	14.3
Have you been informed on counter referral?	Yes*	37	9.1
	No	359	88.4
	Unsure	10	2.5
Did you receive treatments, not mentioned, from referring center?	Yes	75	18.5
	No*	330	81.3
	Unsure	1	.2
Was the explanation of illness by referral center adequate?	Yes*	245	60.3
	No	32	7.9
	Unsure	129	31.8
Total		406	100.0

*Appropriate response

Table (2b): Distribution of patients by number of appropriate responses regarding the quality of the referring process.

Number of appropriate responses	No.	%
1	11	2.7
2	88	21.7
3	150	36.9
4	129	31.8
5	23	5.7
6	5	1.2
Total	406	100.0

Table (3): Patients' satisfaction about the care/treatment received.

Satisfaction	No.	%
Very satisfied	33	8.1
Satisfied	233	57.4
Borderline	115	28.3
Dissatisfied	25	6.2
Total	406	100.0

Table (4): Patients' satisfaction by different variables.

Variables	Satisfaction						p
	Satisfied		Borderline		Dissatisfied		
	No.	%	No.	%	No.	%	
Age							
< 10	57	67.9	23	27.4	4	4.8	0.770
10-19	33	60	16	29.1	6	10.9	
20-29	46	65.7	22	31.4	2	2.9	
30-39	47	63.5	22	29.7	5	6.8	
40-49	37	61.7	19	31.7	4	6.7	
≥ 50	46	73	13	20.6	4	6.3	
Sex							
Male	116	64.1	50	27.6	15	8.3	0.277
Female	150	66.7	65	28.9	10	4.4	
Education							
Illiterate	39	63.9	18	29.5	4	6.6	0.936*
Primary	95	65.5	39	26.9	11	7.6	
Secondary	55	63.2	26	29.9	6	6.9	
University	13	81.3	3	18.8	0	0	
Referring facility							
Mansour	138	70.1	50	25.4	9	4.6	0.014*
Mammon	84	68.9	31	25.4	7	5.7	
Gharbi	29	56.9	19	37.3	3	5.9	
Others	15	41.7	15	41.7	6	16.7	
Consultation clinic							
Medicine	70	68	26	25.2	7	6.8	0.384
Pediatrics	64	64	32	32	4	4	
Surgery	68	66.7	24	23.5	10	9.8	
Gynecology	64	63.4	33	32.7	4	4	

*By Fisher's exact test

Discussion:

In this study the mean age was 28.25 ± 18.29 years, this is goes with the mean age of the study adopted in Muscat 2012 were the mean age was 27.5±8.3 [15], and younger than shown from the study conducted in Karbala 2013; and in Pakistan 2004 where the mean ages were 33.37 and 37.5 years respectively [13, 3].

More than half (55.4%) of the sample 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, this is less than reported in a studies conducted in Pakistan 2004, and Amman 2011, were female rate was (62.8%), and 62.5 respectively [3, 16], while this agree with the females rate of clients (58%) for the study in Muscat 2012, and (55.1%) in Thi-Qar 2008 [15, 17].

The current study describes the experiences of patients with referrals between primary care setting to secondary setting. Patients had positive experiences with referrals to higher level of health care, majority of patients (49%) believe that the referral was appropriate, and only (19%) of them think that the referral was inappropriate. More positive patients 'experience was demonstrated in a study conducted in the Port Elizabeth Metropole 2010 were (75%) of patients interviewed were of the opinion that their referral to hospital was appropriate, while only (11.0%) think that referral was inappropriate [1]. Another studies conducted in Germany 2006 and United Kingdom 2000 reported that (83%) and (95%) of patients respectively were satisfied with their referral to hospital and describing their referral as necessary [18, 19].

In this study eight questions were posed to assess patient experience about referral process, measuring appropriate response from the interviews was adopted through scoring system that reveals two third of patients believe 3-4 areas of the referring process was appropriately done, that (63.1%) informed about cause of referral, (93.8%) of them referred by PHCCs rather than private clinics, (81.3%) didn't receive treatment not mentioned in referral form, and (60.3%) of clients receive adequate information about their illness, in contrast the inappropriate response includes, (3.7%) responded that hospital was informed about referral, transport were provided to (4.9%), (3.4%) had positive response about feed-back referral, and (9.1%) were informed about feed-back.

Few studies look into the experiences of patient with referral process, each include different items for assessment of appropriateness of referrals. In Germany a study conducted in 2006, four items were included resembling items in current study with more appropriate response that (81%) responded that hospital was informed about referral, and (74%) had positive response about feed-back referral, but less appropriate response that (33%) receive adequate information about their illness, and (14%) of clients receive treatment not mentioned in referral form [18].

Another study done in South Africa 2010 regarding back-referral as important aspect of referral process and disagree with present study that (50%) of clients were informed about down referral [5], while in Jammu and Kashmir in India 2015 studying source of referral, the result disagree with current

study that, (18.3%) were referred by private clinics [25].

In current study around two thirds of the patients (65.5%) were either satisfied or very satisfied with the treatment received through referral and consultation. This rate goes with the patients satisfaction demonstrated in the study done in Karbala 2013, (64.7%) and less than that reported in Duhok 2009 (87.1%) [13, 14]. On the other hand those who were not satisfied were only 6.2 that less than (28.5%) and (31.6%) that reported from studies conducted in Karbala 2013 and Pakistan 2004 respectively [13, 3].

In the present study the association between satisfaction between referral and age where older age appear to be more satisfied but it wasn't statistically significant, which was disagreeing with the study in Karbala 2013; there was a significant association between satisfaction and age, where younger age appears to be more satisfied [13]. On the other hand the result of the study conducted in China 2009 shows an association between satisfactions with increasing age [26]. The association with gender as females shows higher satisfaction than males with no statistical significance, this is close to the result of the studies done in Thi-Qar 2008, and in Tehran 2011 found higher satisfaction with health services among females but it wasn't statistically significant. Last two studies also find significant association between level of satisfaction and lower education levels, while current study found an, association between level of satisfaction with higher education levels with no statistical significance [17, 27].

To our knowledge, this is the first study on the assessment of referral system in Mosul. It adds to the limited knowledge on the referral system and provides a general description of the referrals from the primary care level to the secondary care level with special emphasis on patients' opinion and satisfaction with referrals.

There are some limitations that merit consideration. The study only reports the patients experience with referral between at the right bank of Mosul city. Another limitation the sample including only clients consulted with referral form. Nevertheless, we feel that the selected hospital and PHC Cs is representative of the current referral system and we expect to obtain similar findings from other PHC Cs and other governorates. Further research is needed to understand the efficiency of the referral system and appropriateness of the referrals in order to understand the whole system in a more comprehensive manner.

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