

Evolving an appointment system in PHC centers in Basrah: Opinion of physicians and patients

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ABSTRACT:

Background: Despite the increasing interest in implementation of appointment system in many countries, patients, and physicians' views about such system is not examined in Basrah.

Objectives: To study the views of both patients and physicians about introducing appointment system in primary care centers in Basrah.

Methods: Six hundreds and eighty (680) patients and 115 physicians in 20 PHC centers were included in the study. A structured questionnaire was used to collect data.

Results: The majority of patients (79.6%) supported the idea of introducing the appointment system. Married women, employed, and highly educated patients and those who lived far from the PHC center were more in favour of introducing the appointment system. Likewise, the majority of physicians (95.7%) were also in favour of introducing the appointment system. The main disadvantages indicated by both patients and physicians was that it was not beneficial for patients with acute cases.

Conclusions: Both patients and physicians showed positive attitude toward introducing appointment system in PHC centers in Basrah.

Key words: Appointment system, PHC centers, Basrah.

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Introduction:

Appointment systems are practiced by primary health care (PHC) centers to handle effectively entrance to service providers, it has been widely used by developed countries like United Kingdom, Australia and establish itself as good way for organization of the work in PHC setting in general and in the planning of daily work schedule specifically¹⁻³. Effective appointment system will boost to greater extent coordinate attending and best handle for cases where follow up is crucial^{4,5}.

Suppliers and consumers of health care sensed the appointment system in PHC as indicant of proficient character service. The appointment system imparts positively to the improving accessibility of patients and accordingly their gratification^{6,7}. The grandness of the appointment system in the PHC has been accepted as a way for better character of patient health care⁸ and not only for organizational reward⁹.

Nonetheless patients going to PHC in Basrah are views on walk-in basis; first arrive first helped. To carry out appointment system efficaciously, it is essential to infer of the perspective of the patients and doctors.

There is too little if any published data on the impression and gratification of patients and doctors using "walk-in" and how they comprehend the thought of bring out the appointment system in PHC. This study searches this unmapped discipline.

Methodology:

This study was carried out in 20 primary health care centers in Basrah city for the period from 1st February to 30th 2014. The sample of the study included all physicians and randomly selected sample of patients aged 17 years and above of both sexes who were attending those centers at the time of the study. This study was approved by the ethical committees of College of Medicine, Basrah University and the General Health Directorate.

Data collection:

Two separate questionnaires were used to collect data. The first was a self-administered questionnaire completed by physicians inquired about their satisfaction with the existing walk-in system and their opinion on the theme of introducing an appointment system. Informed consent was obtained from the participants before enrolling in the study. The patients were interviewed by the researchers using a structured questionnaire which included; demographic information, satisfaction with the present walk-in system. Whether they would support the idea of introducing appointment system and their notices on the anticipated advantages and disadvantages of an appointment system. Satisfaction of the patients was cross-tabulated with different variables to

look for any possible significant association. Association was tested by Chi-Square Test and P value less than 0.05 was considered significant. Data were analyzed using Statistical Package for Social Sciences (SPSS) version 19.

Results:

Seven hundred and fifty (750) patients invited to participate in the study, from those only six hundreds and eighty (680) accepted with a response rate of (90.6%). The mean age of the patients was 37.10 ± 12.175 years (Range 17-75). Those who were aged <50 years constituted 81.8%. Females constituting 67.4%, and more than half of the patients (53.8%) were with ≥ 12 years level of education. The majority (80.9%) were married and about one half of the patients (49.7%) were employed, and 25% indicated they had chronic illnesses (Table 1).

Table 1: Basic characteristics of the patients

Character	No. (%)
Age	
<50 yrs. old	556 (81.8)
>50 yrs. Old	124 (18.2)
Gender	
Male	222 (32.6)
Female	458 (67.4)
Education	
Illiterate	53 (7.8)
< 12 years	261 (38.4)
≥ 12 years	366 (53.8)
Occupation	
Employed	338 (49.7)
Retired	21 (3.1)
Unemployed	321 (47.2)
Marital status	
Married	550 (80.9)
Single (Divorced/widowed/unmarried)	130 (19.1)
Cause of visit	
For treatment	441 (64.8)
For Immunization	132 (19.4)
Both	82 (12.1)
Others	25 (3.7)
Chronic diseases	
Present	170 (25)
Absent	510 (75)

Although 62.5% of the patients showed satisfaction with the walk-in system but generally 79.6% of the patients were in favour of introducing appointment system and only 15% disagreed and 5.4% had no idea (Figure1).

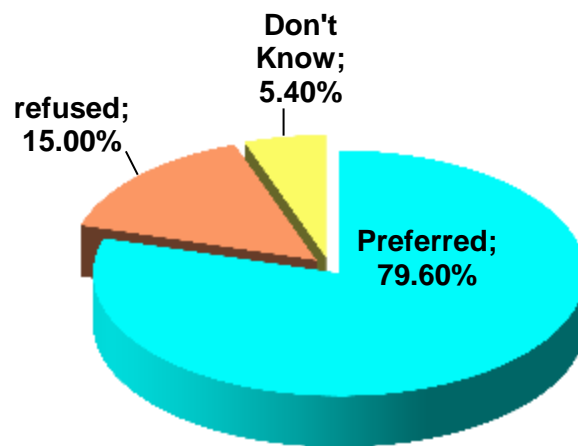


Figure 1: Attitude of patients toward introducing appointment system

More women (82.1%) than men (74.3%) and the married women (80.4%) supported the idea of introducing the appointment system in PHC setting with significant differences ($P=0.004$, $P=0.002$ respectively). The same trend of

association was found with other variables (Education, occupation, residence, and reasons for the visit). While the differences were not statistically significant for age and the presence of chronic diseases (Table 2).

Table 2: Attitude of patients toward appoint system according to basic characteristics

Variable	Prefer	Don't know	Refuse	X ² ; P-value
Age (years)				
< 50	438 (78.8)	30 (5.4)	88 (15.8)	1.637; 0.441
≥ 50	103 (83.1)	7 (5.6)	14 (11.3)	
Sex				
Male	165 (74.3)	21 (9.5)	36 (16.2)	11.241; 0.004
Female	376 (82.1)	16 (3.5)	66 (14.4)	
Marital status				
Single	99 (76.2)	15 (11.5)	16 (12.3)	11.993; 0.002
Married	442 (80.4)	22 (4.0)	86 (15.6)	
Educational level				
Illiterate	39 (73.6)	0 (0.0)	14 (26.4)	17.761*; 0.001
< 12 years	205 (78.5)	9 (3.4)	47 (18.0)	
≥ 12 years	297 (81.1)	28 (7.7)	41 (11.2)	
Occupation				
Employed	267 (79.0)	29 (8.6)	42 (12.4)	17.487; 0.002
Retired	16 (76.2)	2 (9.5)	3 (14.3)	
Unemployed	258 (80.4)	6 (1.9)	57 (17.7)	
Chronic diseases				
Present	138 (81.2)	5 (2.9)	27 (15.9)	2.796; 0.247
Absent	403 (79.0)	32 (6.3)	75 (14.7)	
Residence				
Nearby	189 (70.8)	18 (6.7)	60 (22.5)	29.214; < 0.001
Far away	352 (85.2)	19 (4.6)	42 (10.2)	
Cause of visit				
Treatment	333 (75.5)	21 (4.8)	87 (19.7)	4.229; < 0.001
Prevention	124 (93.9)	3 (2.3)	5 (3.8)	
Both	67 (81.7)	8 (9.8)	7 (8.5)	
Others	17 (68.0)	5 (20.0)	3 (12.0)	

* Fisher's Exact Test

With regard to advantages and disadvantages of the appointment system;

better health care ranked first as the main advantages of introducing appointment system which was reported by 71.2% of the patients. The other advantage, which

was reported, by 70.3% of patients was reducing waiting time. The main disadvantages mentioned were; difficult to get appointment, not flexible, and not beneficial for acute cases. They were reported by 12.9%, 11.2%, and 8.4% respectively.

**Table 3: Patients' view on advantages/disadvantages of appointment system
(N=680)**

Advantages	N (%)
Better health care	484 (71.20%)
Reduce waiting time	478 (70.30%)
Afford more seating area	455 (66.90%)
Reduce over crowd	443 (65.10%)
Saving time	435 (64.00%)
Consult chosen doctor	408 (60.00%)
Disadvantages	N (%)
Difficult to get appointment	88 (12.90%)
Not flexible	76 (11.20%)
Not beneficial for acute cases	57 (8.40%)

One hundred and fifteen (115) doctors participated in the study. The majority of the doctors (95.7%) were in favor of introducing the appointment system. Of them, 69.6% were strongly agreed, while only 1.7% disagreed with the idea of introducing appointment system in Primary Health Care setting.

The doctors' attitude toward advantages and disadvantages of introducing appointment system showed in table 3.

Table 4: Doctors' attitude toward introducing appointment system in PHCC

	Number (%)	
	Agree	Disagree
Advantages		
Improve the quality of health care	89 (77.4)	26(22.6)
Better relationship between patient and doctor	93 (80.9)	22(19.1)
Less stress on doctor	78 (67.8)	37(32.2)
Planning time of the doctor will be easy	87 (75.7)	28(24.3)
Equal distribution of the work load during the week	93 (80.9)	22(19.1)
Reduce waiting time for the patient	91 (79.1)	24(20.9)
Reduce the need for more spaces in the waiting room	92 (80)	23(20)
Less risk of cross infection	104(90.4)	11(9.6)
Disadvantages		
Problems of no attendance (No show)	77(67)	38(33)
Not beneficial for acute cases	75(65.2)	40(34.8)
Load on the telephone	78(67.8)	37(32.2)

Discussion:

The appointment system in PHC is considerably constituted in developed countries and has proven good for both doctors and patients^{1-4,10}. In Basrah even there is impression that an appointment system in PHC may not be satisfactory for the patients, there is no scientific prove to confirm or deny this. The present study affirms the finding of different releasedresearches, which support the theme of introducing the appointment system in PHC setting^{1,11,12}. Females, married,those who lived nearby the

PHC center, patients with high level of education, and those who visit the center for immunization or reasons other than treatment were significantly agreed with the idea of evolving an appointment system in PHC setting in Basrah Females particularly married women were in favor of introducing appointment system; this may due to their home responsibilities and time

constraint. Likewise, employed and highly educated people supported the idea of implementation of appointment system. Length of journey and reliance on a private car or public transport influence patients' behavior in choosing the type of medical care¹³. Therefore it was expected to find that those who live far away from the PHC center preferred the appointment system. Age makes no difference whether the patients want or do not want the appointment system, a result which agrees with that of Stevenson¹⁴. Several studies indicated prolonged waiting times as the main reason of patients' dissatisfaction with health care system, as well as the most frequent reason patients leave before medical evaluation^{15,16}. Therefore, it is not surprising that reducing waiting time and saving time were ones of the most advantages reported by the patients. Interestingly 82.6% of the doctors participated in this study indicated that they are working in overcrowd PHC and 75.7% of them declared no procedure done to solve this problem and 32.2% of

them believed that the patients waiting more than normal in the PHC before they seeing their doctors. This can be due to increase population size, upraise of chronic illnesses and shortage of the doctors working in PHC. Similar result has been seen in another study¹⁷. In our study, the majority of physicians agreed with the importance of the appointment system in reducing patients overcrowd as a positive aspect of this system, a result which is in agreement with what was reported in Saudi Arabia¹. The study population recognized a number of rewards for the appointment system; saving time of the patients, better planning for services; and improved the quality of health care. These are similar to published data^{1,2,5,17,18}. It was enlightened that the bulk of both the doctors and patients in this study substantiate the idea of introducing the appointment system in PHC. Though both patients and doctors admit the potential disadvantage of a rigid appointment system in PHC such as less beneficial for acute cases, a result that had been identified by others¹⁹. Such

disadvantages to the implementation of such systems, although legitimate, have little to prevent evolving this system. So to invalidate these sensed disadvantages a planned use of mixed walk-in and appointment system may be used in the beginning of implementation. These findings require to be regarded earnestly.

Further studies are needed; there should be tractability in the introduction of an appointment system in PHC. Prosperity of appointment system depends on good financial support, good information technology, and effective communicating system²⁰. In conclusion, the attitude of both patients and physicians in PHC centers in Basrah were in favor of evolving an appointment system.

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انشاء نظام مواعيد في المراكز الصحية الاولى في البصرة

الخلاصة

المقدمة: على الرغم من الاهتمام المتزايد في تنفيذ نظام المواعيد في مجال الرعاية الصحية في كثير من البلدان ، لم يتم فحص آراء المرضى والأطباء في البصرة حول هذا النظام.

الاهداف: دراسة وجهات نظر كل من المرضى والاطباء حول استخدام نظام المواعيد في مراكز الرعاية الصحية الأولية في البصرة.

طريقة البحث: شملت الدراسة 680 مريضا و 115 طبيبا في 20 مركزا صحيا تم جمع المعلومات باستخدام نموذج استبيان.

النتائج: أيد غالبية المرضى (79.6%) فكرة إدخال نظام المواعيد , وكانت النساء المتزوجات ، والعاملين ، والمتعلمين تعليما عاليا من المرضى وأولئك الذين يسكنون بعيدا عن مركز الرعاية الصحية الأولية أكثر المؤيدين لفكرة إدخال نظام المواعيد. وبالمثل، فإن غالبية الأطباء (95.7%) كانوا أيضا لصالح فكرة إدخال نظام المواعيد. أما أهم عيوب هذا النظام التي أشار اليها المرضى والأطباء هي أنه ليس مفيدا للمرضى الذين يعانون من الامراض الحادة.

الاستنتاجات: أظهرت النتائج أن لكل من المرضى والأطباء موقفا ايجابيا تجاه إدخال نظام المواعيد في مراكز الرعاية الصحية الأولية في البصرة .

مفتاح الكلمات: نظام المواعيد, مراكز الرعاية الصحية الأولية, البصرة.