An Assessment of Door to Consultation Time in Outpatient Department (OPD) of a Tertiary Care Cardiac Hospital: A Clinical Quality Improvement Project (QIP)

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ABSTRACT

Objective: To assess door to consultation time in cardiac OPD of a tertiary care hospital and to recommend strategies to reduce patients waiting time.

Study Design: Cross sectional study

Place and Duration of Study: Surgical Out-Patient Department, Armed Force Institute of Cardiology, National Institute AFIC/NIHD, Rawalpindi Pakistan, from Aug 2020 to Sep 2020.

Methodology: This quality improvement project (QIP) was conducted for a period of 4 weeks from 15th, Aug-15th, Sep 2020 in the surgical out-patient department of Armed Force Institute of Cardiology, National Institute/National Institute of Heart Disease (AFIC/NIHD). Time for registration, waiting time pre-consultation and consultation times were recorded on a patient survey proforma. A non-probability consecutive sampling technique was used to recruit study participants.

Results: Data was collected from a total of 278 respondents. The results showed that 142(51%) participants had the total door to consultation time of 30 minutes and 86(31%) participants had the door to consultation time of 30-60 minutes 86(31%), respondents reported the actual consultation time to be 11-20 minutes and an equal percentage of participants 86(31%) responded that it was 6-10 minutes. Sixty-six percent 183(66%) participants reported that the doctors were aware of their medical history which helped in shorter consultation time.

Conclusion: In this QIP we concluded that patients who had shorter waiting time lead to a significantly shorter door to consultation time. A few areas of concern identified in the QIP of note were; less number of registration counters and patients presenting on same day without appointments. Recommendations were made to reduce waiting times in outpatient department (OPD) which would in turn increase patient satisfaction.

Keywords: Consultation time, Patient satisfaction, Waiting time.

INTRODUCTION

A common phenomenon in a consultant's waiting room is the consultation time and its starts from as soon as patients enter a concerned department until their consultation starts with the doctor. Door to consultation time is a major concern for the health care workers as well as the managers as it measures the efficiency of an organization. Moreover, total time that a patient spends in a hospital for consultation is inversely proportional to patient satisfaction. According to a study conducted in Malaysia the documented consultation time should be less than 90 min.[1]

Door to consultation time includes time taken at the registration counter, waiting time and consultation time at the physician's clinic. More than the skill and knowledge of a health care worker, a noticeable aspect of practice that is used by a patient to judge a health care worker is the waiting or consultation time. The Institute of medicine recommends that 90% of the patients should be seen within their scheduled appointment time.[2] Outpatient department is an essential part of an organization and the first step towards treatment system.[3] In healthcare industry, each health activity is quantifiable and time is not an exception.[4]

A study conducted in Europe found out that consultation time was different according to the purpose of visit and average consultation time for patients with cardiovascular diseases is 10 min. Previous studies have evaluated that developing countries have a relatively higher waiting and consultation time than developed countries due to over-crowding in the health systems. There is no defined waiting and consultation time as yet.[5,6,7]

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According to one study conducted in a high-deprivation location, more time for complex consultations is connected with higher patient enablement which can in turn lead tomore patient independence.[8,9]

Previous studies that looked at the relationship between waiting time and consultation time and patient satisfaction were largely conducted in high-income nations.[10,11,12] The purpose of this study was to assess the door to consultation time in a cardiac OPD of tertiary care hospital in Rawalpindi Pakistan. Since the studies regarding door to consultation time in a tertiary care setting is scarce, this study can be helpful in formulating strategies to reduce waiting and door to consultation time.

METHODOLOGY

This quality improvement project (QIP) was conducted for a period of 4 weeks from August, September 2020 in the surgical out-patient department of AFIC/NIHD.

Sample Size: Sample size (n=278) was calculated by using WHO sample size calculator by considering 20% prevelence of the patients coming to the cardiac OPD[4].

Inclusion Criteria: The patients coming to the cardiac OPD for medical consultation and follow-up visits.

Exclusion criteria: While critically ill patients who required special attention and those not willing to participate were excluded from the study.

A non-probability consecutive sampling technique was used, and data was collected from 278 individuals. A self-administered questionnaire was used to collect data from the patients. It comprised of questions related to socio-demographic characteristics such as age and gender and questions related to time spent for registration, waiting time pre-consultation and consultation time. Participation was voluntary and patients were informed that all the data would be treated confidentially. Patients were given the choice to withdraw at any time when they decided not to participate in it. Each participant was assisted in filling the questionnaire, and it was translated in Urdu for participants who did not understand English.

The study started after obtaining ethical approval from IERB members of Armed Forces Institute of Cardiology and National Institute of Heart diseases. While conducting this QIP, informed consent from all patients was taken verbally.

Data was analyzed using SPSS for windows version 24. Data was cleaned for any errors or discrepancies. Mean and standard deviation were reported for continuous data, while frequency and percentages were reported for categorical data.

RESULTS

Data was collected from a total of 278 respondents, out of which 214(77%) were males while 64 (23%) were females. Mean age of the respondents was 38.11±11.4 years. The results showed that in 142(51%) participants had the total door to consultation time of 30 minutes and in 86(31%) participants had the door to consultation time of 30-60 minutes as shown in Figure-1.
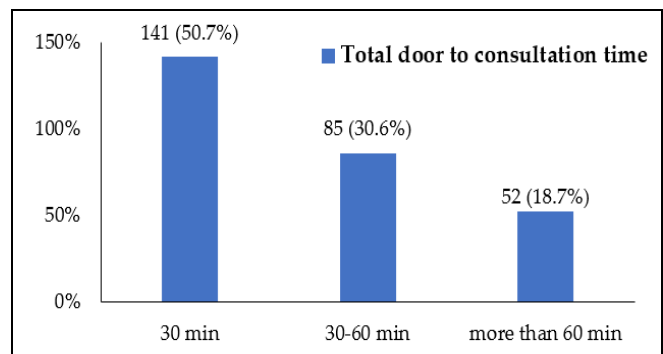

Figure-1: Average door to consultation time (n=278)

At least 162(57.9%) respondents reported that they were informed about the expected duration of wait but eventually it took lesser time than anticipated. 178(64%) participants reported that they were informed about the reason why they had to wait. Thirty-one percent in 86(31%) respondents reported the actual consultation time to be 11-20 minutes and an equal percentage of participants in 86(31%) responded that it was 6-10 minutes. Sixty-six percent 183(65.8%) participants reported that the doctors were aware of their medical history which helped in shorter consultation time (Table-I).

DISCUSSION

Appointment system is way of controlling patient flow in the out-patient department as it reduces waiting time and improves patient satisfaction. Prolong waiting time is caused by crowd in the hospital.

Hospital waiting time is usually used as a determinant of the standard of a service.[8] In this QIP we concluded that patients who had shorter waiting times lead to a significantly shorter door consultation time.

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Table 1: Assessment of Door to Consultation time by a Questionnaire

Variables (n=278)		n	(%	Variables (n=278)		n	%
Age (Mean±SD)		38.11±25.4		Age (Mean±SD)		38.11±25.4	
Gender	Male	214	77.0	Was it easy to find the OPD? Travelling to hospital	Yes, it was easy	214	77.0
	Female	64	23.0		No, it was difficult	39	14.0
Registration Time	Up to 5 min	106	38.1		Can't remember	25	9.0
	6-10 min	98	35.3		By car	55	19.8
	11-20 min	48	17.3		By taxi	72	25.9
	21-30 min	19	6.8		On foot	9	3.2
	More than 30 min	7	2.5		On public transport	135	48.6
Waiting time in consultant office	Seen on time or early	80	28.4	Was the doctor aware of the medical history?	Other	6	2.2
	Waited up to 5 min	59	20.9		Knew enough	183	65.8
	Waited 6-15 min	70	25.2		Knew something, but not enough	68	24.5
	Waited 16-30 min	41	14.7		Knew little or nothing	15	5.4
	Waited 31-60 min	18	6.5		Don't know/ Can't say	12	4.3
	Waited more than 1 hour but not more than 2 hours	6	2.2	How long were you with the doctor?	Up to 5 min	55	19.8
	Waited more than 2 hours	3	1.1		6-10 min	86	30.9
	Can't remember	1	0.4		11-20 min	85	30.6
Was the duration of wait told?	Yes, but the wait was shorter	162	57.9		21-30 min	37	13.3
	Yes, had to wait as long as told	59	20.9		More than 30 min	14	5.0
	Yes, but the wait was longer	24	8.6	Appointment with other staff member How long were you with the other staff member?	Can't remember	1	0.4
	No, I was not told	25	9.0		Yes	132	46.8
	Can't remember	8	2.9		No	146	52.5
Was the reason of wait told?	Yes	178	64.0		Up to 5 min	64	23.0
	No, but I would have liked an explanation	54	19.4	Total Door to consultation time	6-10 min	96	34.5
	No, I did not mind it	35	12.6		11-20 min	67	24.1
	Can't remember	11	4.0		21-30 min	42	15.1
Were you able to find a place to sit?	Yes	224	80.6		More than 30 min	8	2.9
	Yes, but I had to wait for a seat	25	9.0		Can't remember	1	0.4
	No, I could not find a place to sit	19	6.8		30 min	141	50.7
	I did not want a place to sit	4	1.4		30-60 min	85	30.6
	Can't remember	6	2.2		More than 60 min	52	18.7

Increased duration of face to face consultation with a clinician is an important health indicator; ensuring sufficient time with the clinician tells that patients' needs are addressed properly. Explaining things more carefully to the patients helps the patient to understand their physician's advice which in turn promotes health litracy.[9-11]

According to previous literature, an average consultation time with the physician is 6.9-12.4 minutes. In another study by the WHO the mean consultation time in Pakistan is 1.8 min.[12-13]

According to current study 31% of the participants spent 11-20 min with the physician and almost 31% spent 6-10 min with the physician which is a sufficient consultation time according to literature. Our QIP highlighted a few areas of concern which included less number of registration counters leading to increased pre-registration waiting time, sheer large volume of presenting patients, late arrivals, patients presenting on same day without appointments and different levels of complexity of patients requiring customized appointment times.

Doctors are usually aware of their patients' medical and drug history which leads to shorter consultation times.[14] According to this QIP 183 (66%) participants reported that the doctors were aware of their medical history which helped in relatively shorter consultation time.

In addition to the pre-consultation & consultation time, the average waiting time increased to 176.81 ±77.55 minutes. However, majority of the respondents, 181 (81.2%) were satisfied with the services provided while 42 (18.8%) were not. Also, 208 (93.3%) are willing to recommend the hospital to others. Recent studies

also showed an increase in patients' satisfaction with healthcare services.[15,16] This is not surprising because health managers are increasingly recognizing the patients as a major drive in shaping the competitions in the health sector. Another reason could be the preference of patients to utilize tertiary hospitals in this setting because they anticipate better services. Long waiting time was the most common reason 6(2.2%) for patients' unwillingness to recommend healthcare services to their acquaintances. Long waiting time before registration has been adjudged as a major contributory factor to the total waiting time in various settings as observed in this study.[17-18] This could be as a result of shortage of manpower evidenced by two record clerks attending to an average of 100 new patients daily in addition to a far greater number of follow up attendants.[19]

This QIP helped to establish evidence regarding the patients' waiting time in our society where most of the patients prefer to go to the tertiary care setups than primary care due to the limited primary care services and lack of awareness.

RECOMMENDATIONS

- Number of patient registration counters should be increased to reduce pre-registration waiting time.
- Introduction of simplified appointment with personalized consultation time interval according to every patient's needs.
- Making a help desk to reschedule late arrivals and patients who require assistance
- Limited number of appointments per doctor.
- Assigning separate consultation rooms to each on-duty doctor
- Education of staff members and informing on-duty doctors of the number of appointments ahead of time.
- A reaudit to re-assess waiting times after staff education.

LIMITATIONS OF STUDY

This QIP was of short duration and small sample size.

CONCLUSION

A few areas of concern were identified in the QIP, of note were; less number of registration counters, large volume of presenting patients, late arrivals, patients presenting on same day without appointments. This quality improvement project set an example for other public sector and tertiary care hospitals to implement organizational and structural changes to reduce waiting time in OPD and improve patient satisfaction.

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Conflict of Interest: None.

Author·s Contribution

Following authors have made substantial contributions to the manuscript as under:

AK: Manuscript writing, concept and editing

RJ: Manuscript writing, data management, data collection

FP: Intellectual contribution, review of article and critical review

MA: Data analysis, review of article, Proof reading

IAC: Intellectual contribution, concept and final approval

TM: Intellectual contribution, editing, referencing

AS: Manuscript writing , data collection, review of article

FR: Proof reading, study design, referencing

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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MISCELLANEOUS

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