

Original Research Article

Technical expertise and behavior of the doctor- a major determinant of waiting time of OPD patients

Cherry Bansal^{1*}, Mamta Bansal¹, Mandeep Narang¹, Sanjiv Goyal², Parveen Bansal³

¹Department of Hospital Administration, Division of Management, SGRR University, Dehradun, Uttarakhand, India

²Madhu Nursing Home, (NABH accredited) Faridkot, Punjab, India

³University Center of Excellence in Research, Baba Farid University of Health Sciences, Faridkot, Punjab, India

Received: 10 November 2022

Revised: 11 January 2023

Accepted: 12 January 2023

*Correspondence:

Dr. Cherry Bansal,

E-mail: cherry.bansal.2k14@gmail.com, bansal66@yahoo.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: The study was conducted to understand various factors affecting waiting time spent by the patients in outpatient department (OPD) and to provide recommendations for reducing the waiting time in OPD of the selected hospital.

Methods: It was a descriptive cross-sectional pretested questionnaire-based study involving all new 100 consenting patients at OPD recruited into the study using a systematic sampling technique after calculating the sampling interval.

Results: The study indicates that 70% of patients were satisfied and only 30% were dissatisfied with the attention given by the OPD staff, cleanliness, attentiveness of doctor but shows great dissatisfaction regarding the waiting time spent by them in the outpatient department. Most of the subjects gave the reason for their satisfaction despite more time because of expertise of the doctor, behavior of the doctor, association of hospital with non-government organizations and insurance companies for free medicine and surgery. The dissatisfaction was not because of lack of administration but because of low level of awareness amongst patients attending the OPD about internet booking of appointment, COVID protocols, priorities given to recommendations given by other doctors/VIPs and walk in OPDs attended without prior appointment.

Conclusions: A very important observation which evolved from the study was the version of patients that waiting time does not matter because they want to be treated from same doctor due to his/her expertise. Second important observation was that the addressing and greeting of patient by his/her name gave a great satisfaction and level of comfort to patients and affects the waiting time.

Keywords: Behavior, Expertise, OPD, Patient satisfaction, Waiting time

INTRODUCTION

Time management is one of the greatest reflections of any successful organization and hospital. It is globally agreed that a well-designed health system deliver timely and provide a trouble free convenient access to health services for all patients. Patient waiting time for healthcare services is identified by the World Health Organization (WHO) as one of the key measurements of a responsive health system. Many interventions aiming to reduce waiting times have been implemented in Chinese public

tertiary hospitals to improve patients' satisfaction. However, few were well-documented, and the effects were rarely measured with robust methods. Patient waiting time is the amount of time for patients seeking care at healthcare units before being attended for consultation and treatment.^{1,2} The United States (US) Institute of Medicine's report "crossing the quality chasm" outlines a framework of six guiding principles to staying ahead in a more competitive healthcare delivery system. One of these principles is the ability to provide timely care and to reduce harmful delays.³ The patient's

Charter of the United Kingdom (UK) Government sets a series of standards which state that all patients must be seen within 30 minutes of their appointment time.⁴ It is globally agreed that a well-designed healthcare service management system should not make patients to wait long time for appointment and consultation.

The patients waiting time is defined as the length of time when the patient entered the outpatient clinic to the time the patient actually leaves the OPD. Whether it's a time used for registration of patient, routine doctor's appointment, emergency room treatment, laboratory or diagnostic test, procedures, receiving the results of various tests, waiting happens to just about everyone seeking medical care. We can tell as it is one of the most frustrating parts about health care delivery system. Waiting time for elective care has been considered a serious problem in much health care system since it acts as a barriers to efficient patient flow.

OPD is considered as the show window to hospital services and patient's impression of the hospital begins at the OPD. This impression often influences the patient's sensitivity to the hospital and therefore it is essential to ensure that OPD services provide an excellent experience for customers. It is also well established that 8 to 10 percent of OPD patients' need hospitalization. It is very clear that patient spend substantial amount of time in the clinics waiting for services to be delivered by physicians and other allied health professionals. The degree to which the health consumers are satisfied with the care received is strongly related to the quality of the waiting experience.^{1,4}

Health care organizations that strive to deliver exceptional services must effectively manage their clinic wait. Failure to incorporate consumer driven features in to the design of wait experience could lead to patient and provide dissatisfaction. Waiting time refers to the time a patient waits in the clinic before being seen by one of the clinic medical staff. Patient clinic waiting time is an important indicator of quality of services offered by hospitals. The amount of time a patient wants to be seen is one factor which effects utilization of health care services. Keeping patient waiting unnecessarily can be a cause of stress for both patient and doctor. Waiting time is a tangible aspect of practice that patient will use to judge health personnel even more than their knowledge and skill.^{2,4}

The institute of medicine (IOM) recommends that at-least 90% of patient should be seen within 30 minutes of their schedule appointment time. This is however not the case in most developing countries as several studies have shown that patient spend 2-4 hour in the out- patient department before seeing doctor.⁵

Hence there was a need to conduct a pilot study on factors affecting the waiting time of patients that could be extrapolated in a number of other hospitals throughout the

state for multi-centric results. It is no doubt that longer wait times can affect patient care and patients' willingness to seek health-care services. Not only does this disrupt the continuity of treatment and care, but it also negatively impacts patient outcomes. During the past few years, the concept of patient satisfaction has become a vital component in assessing the delivery and efficiency of care. Patient satisfaction is a performance indicator that measures the extent to which patient is content and satisfied with the level of care provided by health-care institutions and providers.⁶

METHODS

Study site

The study was conducted in out-patient clinic of a 50 bedded NABH accredited specialty care hospital at Faridkot after clearance from the ethics committee wide letter number MNH/SP/83/21. The hospital is equipped with all modern technologies and provides excellent medical care using a cost-effective rational approach.

Sample size calculation

The minimum sample size was determined using the formula for estimating required sample size in a population less than 10,000.⁷

$$N_f = n/1 + (n/N)$$

Value of n was calculated using the formula $n = Z^2pq/d^2$

n = sample size,

Z = standard normal deviate at 95% confidence level = 1.96,

P = prevalence of the factor under study, 84% (0.84) selected from research studies

q = complementary factor for $q = 1 - p$,

N = average number of targeted population (i.e., average number of patients attending OPD daily) = 150,

n_f = minimum required sample size (for population less than 10,000),

d = precision/tolerable margin of error = 5% (0.05).

Therefore, minimum required sample size was calculated to be 96; however, the sample size was increased to 100 for the study.

Subjects and methods

It was a descriptive cross-sectional study involving all new patients seen at the OPD during September to

October 2021. Structured questionnaire and waiting time assessment card were used to elicit information on socio-demographic characteristics of patients, time spent before registration, time spent in the waiting area, details of conversation between doctor and patient, time spent with a doctor. Trained health personnel assisted respondents who could not read or write in completing the questionnaire in regional language. The questionnaire was pre-tested at the OPD of a specialist hospital located some distance from the hospital. Only new patients presenting to the OPD for the first time and who gave their consent to participate in the study were selected (inclusion criteria) while critically ill patients were excluded from the study.

A total of 100 consenting patients were recruited into the study using a systematic sampling technique after calculating the sampling interval:

$K = \text{Average number of targeted population/minimum required sample size}$

Where K is the sampling interval, $K = 150/100$; $K = 1.50$

This was, however, approximated to 2.

Based on the above sampling interval, the systematic sampling technique was carried out as follows: i) simple random sampling was done for the first two patients to get the starting point, ii) thereafter, every other new patient that came to the clinic was enrolled in the study until the required sample size was obtained.

The research approach adopted in this study was descriptive method and the required data was obtained from 100 respondents consisting of patients through questionnaires and here the information, opinion and attitude collected by observation and studying the relevant record maintained in OPD. Primary data was collected by interviewing the patient/attendant by reading out the information in regional language from the questionnaire developed by investigator to the patients and collecting the response about services of the outpatient department. The investigator informally explained the purpose of the study and obtained the consent from the patient. Anonymity and confidentiality were maintained for the information provided by the patients/attendants.

RESULTS

In this study, 56% of male and 44% of female were enrolled by random sampling method. In this study 56% patients arriving the OPD belonged to the age group of 41-60 years and 24% patients were under the age group

20-40 years and the remaining 20% above 60 years. Most of the respondents (about 80%) reported excellent attention at OPD reception, quality of patient care and level of hygiene/cleanliness, guidance of OPD staff for laboratory and radiology investigations, registration and billing procedure, polite and courteous behavior of staff with 88% of respondents satisfied with overall performance of OPD department and rated as good (Figure 1). Only 34% subjects had taken prior appointment whereas 66% subjects did not take prior appointment (Table 1a). The subjects who had not taken prior appointment were also questioned about the reason for not taking prior appointment and the major reason was lack of awareness/literacy about online appointment system (Table 1b) however about 30% subjects reacted that appointment was not at all needed as they were having lot of free time to wait for the doctor of their choice. It is pertinent to mention here that 9% of subjects did not take appointment as they were having reference of highly influential VIP/other doctor.

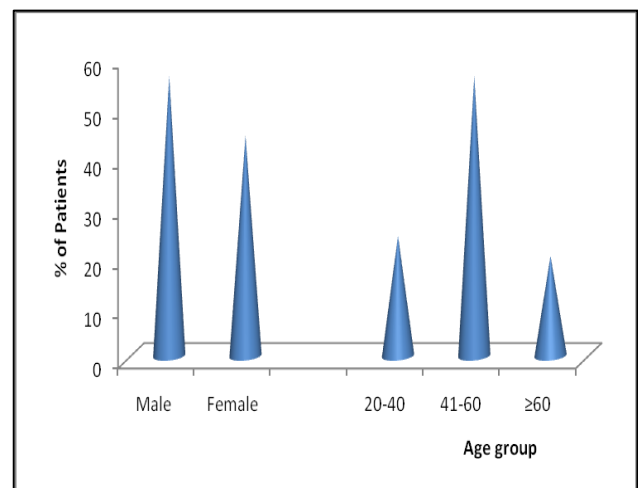


Figure 1: Demographic distribution of subjects as per gender and age group.

Different suggestions were obtained from respondents regarding reduction of the waiting time of OPD. As the overall satisfaction rate of subjects towards hospital services was very high hence, investigators also tried to know about the main reasons of respondents for satisfaction over long waiting time. The main suggestions to reduce waiting time and reasons for satisfaction are listed in Table 1c. As is clear from Table 1c, most of the subjects suggested that doctors should reach on time with a fixed number of patients to be served on first come first served basis. Most of the subjects gave the reason for their satisfaction despite more time because of expertise of the doctor, behavior of the doctor, association of hospital with non-government organizations and insurance companies for free medicine and surgery.

Table 1: Response of subjects for hospital services, behavior of staff, grievances and other parameters.

a) Questions about response of subjects about OPD/hospital services (n=100).		Response (%)		
		Excellent	Good	Poor
1)	Attention given to you by OPD reception?	60	20	20
2)	Quality of patient care you availed?	20	68	12
3)	Level of Hygiene/Cleanliness	20	56	24
4)	Direction by the OPD staff for Lab and Radiology investigation	12	72	16
5)	Registration and Billing Procedure of OPD	26	54	20
6)	How you will rate the OPD department	40	48	12
b) Questions about general response of subjects about behavior of staff and grievances (n=100)		Response (%)		
		Yes	No	
1)	Whether OPD nurses were Polite/Courteous	84	16	
2)	Did you face any specific problem in OPD	8	92	
3)	Were you referred to this Hospital	24	76	
4)	Did any staff brief you regarding the work flow in OPD	14	86	
5)	Did you take an appointment time for your visit	34	66	
6)	Have you received appointment card	82	18	
7)	Have you waited for long time (more than 1 hour) in OPD	56	44	
c) Questions about reasons for satisfaction/not taking the prior appointment and suggestions to reduce the waiting time of subjects				
Reason for not Taking the prior appointment (n=66)		Response (%)		
1)	Lack of awareness/literacy about online appointment system	60.6		
2)	Appointment doesn't matter as they have lot of free time	30.3		
3)	Had VIP referral	9.09		
Suggestion to reduce the waiting time in OPD (n=56)				
1)	Doctors should be available on time	96.42		
2)	First come first serve	71.42		
3)	Doctors should be given fixed patients	71.42		
Main reasons of satisfaction of patients over waiting time (n=100)				
1)	Expertise of the doctor matters	85		
2)	Doctor behavior	90		
3)	Association of hospital with different NGOs for free medicine/surgery	87		
4)	Hospital is on panel of different Insurance companies	90		

DISCUSSION

The OPD acts as a show window to hospital services and a patient's impression of the hospital begins at the outpatient department. This impression often influences the patient's sensitivity to the hospital and therefore it is essential to ensure that OPD services provide an excellent experience for customers. No correlation was studied for age and waiting time as previous studies have shown no significant effect of gender on waiting time. A study conducted by different researchers, however did not observe any association between gender and duration of waiting time.^{7,8} Increase waiting time at OPD causes a negative impact on patient's satisfaction; hence health care facility performance can be best assessed by measuring the level of patient satisfaction. The mean (SD) age of respondents was 48 (13.37) years, which is higher as compared to 38 years and 45 years obtained in similar studies.⁹ The higher mean age observed in this study could be related to the fact that 56% of the respondents were the age of 40-60 years and 20%

respondents were the age of above 60 years. In fact, age can affect the waiting time because the younger generation are more impatient to be attended on priority whereas in our study the mean age group of the patients was 48 which represents subjects with enough maturity. This is also the reason that an overall dissatisfaction rate was less than 20%. The data for the present study was collected by personnel observation and structured questionnaire which was given to the patients attending outpatient department. The present study revealed that patients are satisfied with the doctors' interaction and treatment but they are not satisfied with the waiting time for getting consultation. The present study also reveals that the majority of the patients were satisfied with the quality of patient care, level of hygiene, attention given by the OPD nurses, appointment system, and registration and billing procedure. Few patients were not satisfied with the facilities because their expectation is more than the facilities provided by hospital. A very important observation which evolved from the study was the version of patients that waiting time does not matter because they want to be treated from same doctor due to

his/her expertise. Second important observation was that the addressing and greeting of patient by his/her name gave a great satisfaction and level of comfort to patients and affects the waiting time.

Limitation of the study is that the data was limited to 100 subjects from a single hospital. A multi-centric study may be conducted for better interpretation of results and application.

CONCLUSION

Patients attending each hospital are responsible for spreading the good image of the hospital and therefore satisfaction of patients attending hospital is equally important for hospital management. The study was conducted to understand the waiting time spent by the patients in the outpatient department and to provide recommendations for reducing the waiting time in the out-patient department of the selected hospital. The study indicated that 70% of the patients were satisfied and only 30% were dissatisfied with the service provided by the outpatient department. Overall patients were satisfied with the attention given by the OPD staff, cleanliness, attentiveness of doctor but shows great dissatisfaction regarding the waiting time spent by them in the outpatient department. This dissatisfaction is not because of lack of administration but because of low level of awareness amongst patients attending the OPD about internet booking of appointment, priorities given to recommendations given by other doctors/VIPs and walk in OPDs attended without prior appointment. Another factor that came out to be increasing the waiting time was the long protocol to be followed by staff as well as patients for COVID-19 precautions and COVID testing prior to attending physical OPDs. Various studies about the OPD service have elicited problems like overcrowding, delay in consultation, proper attention of the staff etc. The study depicts that average number of patients coming to OPD each day as walk in is more in comparison to the prior appointment-based patients which in fact increases the average waiting time of patients. A very important point observed in this study was that when a patient is being addressed by his name by the doctor, it gives him/her a great level of satisfaction.

ACKNOWLEDGEMENTS

Authors are thankful to all hospital staff for their cooperation in collection of the data.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Mirzoev T, Kane S. What is health systems responsiveness? Review of existing knowledge and proposed conceptual framework. *BMJ Glob Health*. 2017;2(4):e000486.
2. Jin HJ, Cheng AL, Qian JY, Lin LM, Tang HM. Effect and satisfaction of outpatient services by precision valuation reservation registration. *World J Clin Cases*. 2021;9(26):7750-61.
3. Batalden M, Batalden P, Margolis P, Seid M, Armstrong G, Oipari-Arrigan L, et al. Coproduction of healthcare service. *BMJ Qual Safe*. 2006; 25(7):509-17.
4. Sun J, Lin Q, Zhao P, Zhang Q, Xu K, Chen H, et al. Reducing waiting time and raising outpatient satisfaction in a Chinese public tertiary general hospital-an interrupted time series study. *BMC Public Health*. 2017;17(1):1-11 .
5. Vogus TJ, McClelland LE. When the customer is the patient: lessons from healthcare research on patient satisfaction and service quality ratings. *Hum Res Man Rev*. 2016; 26(1):37-49.
6. Xie Z, Or C. Associations between waiting times, service times, and patient satisfaction in an endocrinology outpatient department: a time study and questionnaire survey. *INQUIRY J Health Care Organ Prov Fin*. 2017;54:0046958017739527.
7. Araoye MO. Research methodology with statistics for health and social sciences. Ilorin: Nathadex Publisher. 2003;115(9):25-120.
8. Belayneh M, Woldie M, Berhanu N, Tamiru M. The determinants of patient waiting time in the general outpatient department of Debre Markos and Felege Hiwot hospitals in Amhara regional state, North West, Ethiopia. *Glob J Med Public Health*. 2017;6(5):1-17.
9. Sarwat A. The Effects of waiting time and satisfaction among patients visiting medical outpatient department of a tertiary care hospital. *J Pak Psychiatr Soc*. 2021;18(3).

Cite this article as: Bansal C, Bansal M, Narang M, Goyal S, Bansal P. Technical expertise and behavior of the doctor- a major determinant of waiting time of OPD patients. *Int J Community Med Public Health* 2023;10:677-81.