

## Original Article



# Management effectiveness and efficiency of healthcare delivery system at ophthalmology outpatient department (OPD) in the Sadar Hospital, Chuadanga, Bangladesh

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### Abstract

**Background:** This present study was carried out in the Outpatient Department of Ophthalmology in Chuadanga Sadar hospital, Bangladesh with the general objective to observe the management effectiveness and efficiency of health service provided in Outpatient Department at Sadar hospital (District level) in Bangladesh and ultimately reveal the need of a managerial personnel in health management other than doctor. **Objectives:** The objective of the study was to find out management effectiveness, efficiency of health care service at OPD and ultimately reveal need for a managerial personnel for management other than doctor. **Materials & Methods:** This cross-sectional study was carried out among 450 respondents by using a pre-tested questionnaire over a period of six months. **Results:** Regarding health care delivery system at outpatient in Bangladesh it was found that before appointment, majority of the respondent (94.44%) were referred to the OPD by local village doctor. After arrival at OPD, majority (29.56%) respondents experienced poor courtesy of the attending personnel. Consultation started between 16-30 minutes after appointment. During consultation with the doctor 66.22% respondents had enough time to consult to a doctor but to some extent. In most (50%) of the cases, consultation time was less than 5 minutes. Most of the respondents (48.88%) were not satisfied with the existing health care. Management effectiveness and efficiency of the existing healthcare service rated as fair (28.44%), poor (24.22%), good (21.57%), very good (13.77%) according to the opinion of the respondents. Ultimately 65.12% respondents sought for a need managerial personnel other than doctor. **Conclusion:** This study finding concluded need for managerial personnel for hospital management other than doctor himself.

**Keywords:** Management effectiveness and efficiency, OPD, Sadar hospital- Bangladesh.

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### Introduction

Bangladesh is one of the densely populated countries in the world. Its problems are many and health is one of them. As a result, poor and inadequate health services are acting as obstacles against the overall development of this country. In Bangladesh, government is viewed as the primary actor in the health sector. The overall health status in Bangladesh represents an unimpressive picture albeit some developments have taken place in this sector during the past years. The country has adopted primary health care policy for achieving health for all, but policy achievement in the health sector is very poor. The health care system in Bangladesh is a mix of

public and private initiative.<sup>1</sup> In terms of physical infrastructure, public sector is stronger than the private sector although in terms of coverage, the health care system of the country should be termed as a privatized one. Besides the private sector there are some NGOs, which also play a significant role in providing health services. All these institutions are managed and controlled under the policy guidelines of the government. The government's efforts to provide health facilities at the various levels, though free of cost and managed by trained professionals, has however, not lead to desired level of use of the services. All these institutions are managed and controlled under the policy

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guidelines of the government. The government's efforts to provide health facilities at the various levels, though free of cost and managed by trained professionals, has however, not lead to desired level of use of the services. Primary health care services are greatly under utilized, despite repeated efforts by the government to improve these services. Sadar Hospital generally refers to a type of district level government hospital where people of the districts can have the consultation with some specialized practitioner as well as general practitioner.<sup>2,6</sup> Majority of patients experienced mismanagement in every stages how they deliver services to the customer. Government has a vision to ensure health service among the country men as their fundamental right. Hierarchically outpatient department is a very important part in healthcare service not only in this hospital but also in entire countries health service system. All patients have to approach to receive healthcare service with this department. Government also gets shaped through this department to deliver its health services to the nation. This department effectively decreases the number of patient who needs to get admission into the indoor ward. This department works like a shop window and filtrate the patient where to go and plays a greater contribution to reduce the rate of morbidity and mortality.<sup>7,8</sup> So to find out effectiveness and efficiency of existing healthcare service provided at outpatient department (Ophthalmology department) this present study was carried out.

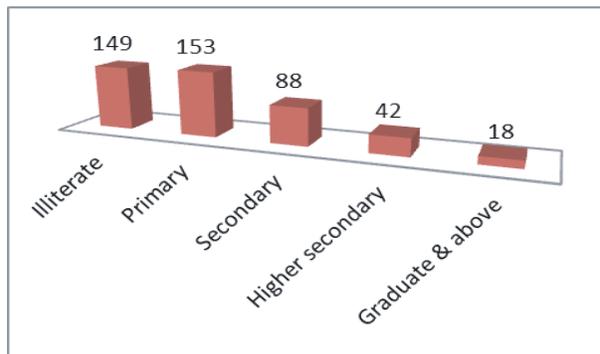
**Materials and Methods**

This cross-sectional descriptive study was carried out in the outpatient department of Ophthalmology, Chuadanga Sadar Hospital, Chuadanga, Bangladesh to find out the management effectiveness and efficiency of health care service at outpatient department and ultimately reveal the need for managerial personnel for health management other than doctor. A total number of 450 respondents were purposively enrolled in this study and relevant data were collected through a structured pretested questionnaire over a period of six months. The researcher himself collected data by the questionnaire after getting informed verbal consent from the respondents. At the end of the day, the collected data were rechecked and data was inputted into SPSS (v.20) for analysis. Prior to commencement of this study, the aim and objectives of this study along with its procedure were explained to the patients in easily understandable local language and then informed verbal consent was taken from each patient. It was assured that all information and records would be kept confidential.

**Results**

This cross-sectional descriptive study was conducted in the Outpatient Department of Ophthalmology in Chuadanga Sadar hospital, Bangladesh with the general objective to observe the management effectiveness and efficiency of health service provided in Outpatient Department at District level in Bangladesh. A total number of 450 respondents were interviewed by the researcher using a questionnaire over a period of two weeks. It was observed that majority 41.78% of the respondent were from 18 - 29 age groups. 25.11% were from 30 - 39 age groups. 18.44% and 18.44% respondent were from 40 - 49 and 50 - 59 age group respectively. Rest of the respondent was from 60 years above age group. Majority (59.70%) of the respondents were female. Rest (40.30%)

respondents were male. About one third of subjects crossed primary level. 31.60% respondents were found illiterate. Only (6.11%) respondents completed their graduation. 19.60% people crossed S.S.C level and 8.20% crossed H.S.C level (Figure 1).



**Figure 1:** Diagram showing educational status of the study subjects.

**Table I:** Common diseases profile of the study population (n=450)

Diseases	Frequency (n)	Percentage (%)
Conjunctivitis	389	86.44
Refractory error	354	78.67
Cataract	227	50.44
Chronic dacrocystitis	156	34.67
Corneal ulcer	140	31.11
Glaucoma	83	18.44
Aniridia	45	10
Squint	37	8.22

\*Multiple responses were elicited.

It was observed that most (43.33%) of the respondents were Housewives. Among male, 16.84% respondents were engaged in business. Muslims were 97.48%. Rests 2.22% were Hindus. Mean ± SD monthly income was about 10512 ± 7231 tk per month. Most common eye diseases prevailed in the study are were conjunctivitis (86.44%), next was refractory error (78.67%) and cataract (50.44%).

**Table II:** Health care delivery system status before appointment

Stages of healthcare Traits delivery	Responses	Number (n)	Percentage (%)	
Before the appointment	By local village doctor	425	94.44	
	Health assistant	406	90.22	
	Referral to the OPD (n=450)	General practitioner (MBBS)	167	37.11
		Specialist	89	19.78
	Relatives and neighbors	349	77.76	
	Self	233	51.78	
	Location	378	84	
	Length for wait for an appointment	213	60.67	
	Reasons for choosing this OPD (n=450)	Good background record	79	17.56
		Personal experience	142	34.56
Recommended by relatives and neighbors		388	86.22	

Chronic dacryocystitis (34.67%), corneal ulcer (31.11%), glaucoma (18.44%), aniridia (10.00%) and squint (08.22%) were observed in the study population (Table I). Among 450 respondents majority of the respondents (94.44%) were sent to the OPD by local village doctor. Health assistant (90.22%), relatives and neighbors (77.76%) and general practitioner (37.11%) referred the respondent to OPD (Table II). After arrival at OPD, majority (29.56%) respondents experienced poor courtesy of the attending personnel. 22.67% claimed about fair courtesy, 24% recommended the courtesy level as very poor. A few told about excellent courtesy. In majority of the cases consultation started between 16-30 minutes after appointment. In case 28% respondents consultation started between 31-60 minutes. 17.78% respondents waited more than 1 hour for a consultation (Table III).

**Table III:** Health care provided during arrival at OPD

Stages of healthcare delivery	Traits	Responses	Number (n)	Percentage (%)
During arrival at OPD	Courtesy of the personnel at OPD (n=450)	Excellent	22	4.89
		Very good	49	10.88
		Good	36	8
		Fair	102	22.67
		Poor	133	29.56
		Very poor	108	24
Waiting	Time interval between appointment and onset of consultation (n=450)	Early	44	9.78
		Up to 15 minutes	72	16
		16-30 minutes	98	21.78
		31-60 minutes	126	28
		More than one hour	80	17.78
		Could not remember	30	6.66

It was observed that cause of delay in consultation was explained by the authority to 47.34% respondents which required further explanation. 14.36% respondents were given explanation about which they did not mind. Majority (25%) of the respondents experienced apology for delay in appointment by the concerned authority. 60.38% could not recall about the apology (Table IV).

**Table IV:** Waiting during consultation

Stages of healthcare delivery	Traits	Responses	Number (n)	Percentage (%)	
Waiting	Reasons for delay (n=376)	Told by the authority	100	26.6	
		Told by the authority but need more explanation	178	47.34	
		Told by the authority but respondent did not mind	54	14.36	
		Could not remember	46	11.67	
		Yes	94	25	
		No	55	14.62	
Seeing a Doctor	Apology for delay in appointment (n=376)	Could not remember	227	60.38	
		Yes	298	66.22	
		All part of appointment with the doctor (n=450)	Yes	298	66.22
		No	152	33.78	

About 66.22% respondents had enough time to consult to a doctor but to some extent. A vast number (34.91%) claimed that the doctor did not give enough time of consultation. In

most (50%) of the cases, consultation time was less than 5 minutes. A very few (8.4%) respondents had consultation for more than half an hour. In majority (48.32%) of the respondent's disease condition was not explained completely while only 10.4% respondent's experienced complete explanation about their disease. 18.47% respondents failed no need for explanation. Majority (39.55%) of respondents was not provided with enough information about the disease and dissimilarity of words was observed among 20% stuffs during management (Table V).

**Table V:** Overall about the appointment

Stages of healthcare delivery	Traits	Responses	Number (n)	Percentage (%)
Over all about the appointment	Information given about the disease in OPD (n=450)	Not enough	178	39.55
		Right amount	84	18.66
		Too much	26	5.77
		No	146	32.44
		Could not remember	142	3.58
		Dissimilarity of words among the staffs in management (n=450)	Yes	90
	To some extent	153	34	
	No	207	46	

Most of the respondents (48.88%) were not satisfied with the existing health care delivery at OPD and majority (70%) told that this service was not well organized. Management effectiveness and efficiency of the existing healthcare service rated as fair (28.44%), poor (24.22%), good (21.57%), very good (13.77%) according to the opinion of the respondents. Ultimately 65.12% respondents sought for a need managerial personnel other than doctor (Table VI & VII).

**Table VI:** Overall impression about the healthcare delivery

Stages of healthcare delivery	Traits	Responses	Number (n)	Percentage (%)
Overall impression about the healthcare delivery at the OPD by the respondent	Satisfaction with the existing healthcare delivery at the OPD (n=450)	Yes	86	19.12
		To some extent	144	32
		No	220	48.88
	Organization of the OPD (n=450)	Well organized	45	10
		Fairly organized	90	20
		Not at all organized	315	70
Management effectiveness and efficiency of the existing healthcare delivery at the OPD (n=450)	Excellent	49	10.88	
	Very good	62	13.77	
	Good	97	21.57	
	Fair	128	28.44	
	Poor	109	24.22	
	Very poor	54	12	

**Table VII:** Responses for need for managerial personnel other than doctor

	Response	Number (n)	Percentage (%)
Need of a managerial personnel other than doctor	Yes	293	65.12
	May be	112	24.88
	No	45	10

This response for need of managerial personnel is statistically significant on basis of age groups, gender, educational status, religion and occupation but response was not significant on basis of the respondents' monthly family income (Table VIII).

**Table VIII:** Statistical analysis on basis of demographic variable for need for managerial personnel other than doctor

Demographic variable	Degree of freedom (df)	Chi - square value/ P value	Significance
Age	10	19.15/ 0.05	Significant
Gender	2	8.98/ 0.05	Significant
Monthly family income	12	20.66/ .10	Not-Significant
Educational status	2	13.866/ 0.001	Significant
Religion	2	7.19/ 0.05	Significant
Occupations	14	29.41/ 0.01	Significant

## Discussion

Health is a fundamental human right. Health is not a single entity but a comprehensive multisectoral management governed by good managerial personnel. If the management system remains good-working the effectiveness and efficiency of this healthcare delivery system comes to satisfactory level to the consumer. In most of the cases, doctor is the chief managerial personnel in health management along with the treatment known to him. But in most of the cases when both treatment and management are done at the same time by a doctor, it becomes difficult for a healthcare service to be an effectiveness and efficiency of existing healthcare system delivery at OPD and ultimately reveal the need for a managerial person in health sector other than doctor. This cross-sectional descriptive study was conducted in the Outpatient Department of Ophthalmology in Chuadanga Sadar Hospital, Bangladesh among 450 respondents with the general objective to observe the management effectiveness and efficiency of health service provided in Outpatient Department at District level in Bangladesh by the researcher using a questionnaire over a period of two weeks.

Bangladesh is a densely populated Muslim country where most of the people are not upto satisfactory level regarding educational and socio-economic background. It was observed that majority (41.78%) of the respondent were from 18-29 age group. Among 450 respondents, majority (59.70%) were female attending in OPD at Chuadanga. Rest 181 (40.30%) respondents were male. In a study<sup>4</sup> it was seen that majority of the respondents attending in OPD at Dhaka medical College Hospital, Bangladesh was male (54.85%). As Dhaka is capital city as well as a mega city therefore peripheral people (mostly male) gather here for their livelihood. So, attending people in any OPD in Dhaka city are mostly male. This is the cause of dissimilarity of result of the present study with the study conducted in Dhaka, Bangladesh. Most (43.33%) of the respondents were Housewives. 16.84% respondents were engaged in business. This demographic picture of the study population is very much common in developing Bangladesh. It was also revealed 42% respondents had family income between 2501 - 5000tk (BDT) having 4-7 family members. This finding is also consistent with previous study<sup>4</sup> where majority (46.44%) of the respondents had monthly family income ranging from 2000 to 5000 BDT (Taka). As data was collected at ophthalmology OPD, most common eye diseases revealed was Conjunctivitis (86.44%), next was refractory

error (78.67%) and cataract [227 (50.44%)]. Chronic dacryocystitis (34.67%), corneal ulcer (31.11%), glaucoma (18.44%), aniridia (10.00%) and squint (08.22%) were observed in the study population. This result is consistent with the study results where it was observed mostly aniridia, chronic dacryocystitis, conjunctivitis, corneal ulcer, glaucoma, cataract, refractory error, retinoblastoma, squint as prevailed diseases.<sup>5-7</sup> Bangladesh government runs healthcare system at secondary level under management of a doctor. People around this hospital referred mainly by village doctor, health assistant, relatives and neighbors. This picture is reflected by the result of the study as, before appointment, majority of the respondent (94.44%) were referred to the OPD by local village doctor. Health assistant (90.22%), relatives and neighbors (77.76%) and general practitioner (37.11%) referred the respondent to OPD. Ministry of Health and Family Welfare, Bangladesh keeps this strategy that at village level, trained village doctor (Pollichikitshaks), health assistants, family welfare visitors will attend the patient first at village level, give treatment and refer the patient to nearest hospital. This is why our study reflects that majority of the referral personnel were village doctor (Pollichikitshaks), health assistants. Large numbers of patients is handled at OPD, the attending personnel sometimes became annoyed by the rush of the patient. Therefore, majority of the respondents (29.56%) experienced poor courtesy of the attending personnel. 22.67% of total respondents claimed about fair courtesy, 24% recommended the courtesy level as very poor. This could be suspected from this opinion that majority of the respondents attending in OPD, Chuadanga were not satisfied with attending Staffs But in previous study<sup>4</sup> it was revealed that most (74.90%) of patients were satisfied (ranging from fair to good) with OPD staffs. The dissimilarity of results with the present study may be due to limited number of hospital staff at secondary level (District level). It was seen that cause of delay in consultation was explained by the authority to 47.34% respondents which required further explanation. It was interesting that, 25% of the respondents experienced apology for delay in appointment by the concerned authority. It is a good thing to observe that all the authorized personnel at every level who come in contact with the patient tried to manage their jobs. In majority of the cases consultation started between 16-30 minutes after appointment.

In case 28% respondents consultation started between 31-60 minutes. 17.78% respondents waited more than 1 hour for a consultation. In similar study<sup>4</sup> at Bangladesh, mean waiting time was about 31 minutes which was similar with the present study result. In review literature of Willcox<sup>8</sup> it was found that mean waiting time after appointment was 27 days in Australia, 3 weeks in Canada, 13 weeks in England, 6 months in New Zealand and 18 months in Wales. This prolonged waiting time in non- Asian countries was due to advanced scheduling system in those countries, patient's choice in receiving appointment date and measurement of waiting time in cumulative frequencies compared to present study. At hospital doctor was concerned with providing treatment to a large (66.22%) group of population. So, 34.91% claimed that the doctor did not give enough time of consultation. In most (50%) of the cases, consultation time was less than 5 minutes. A very few (8.4%) respondents had consultation for more than half an hour.

In majority (48.32%) of the respondent's disease condition was not explained completely while only 10.4% respondent's experienced complete explanation about their disease. 18.47% respondents failed no need for explanation. This finding was similar with Khan et al. study which showed majority of the patients (81%) were satisfied (ranging from fair to good) about the responsiveness and patience of the doctors to listen to their problem.<sup>5</sup> During consultation doctor left his room for attending emergency and meeting with higher authority during the consultation time. So, in 50% cases the patients got less than 5 minutes and less explanation about their disease processes. Those who were not attendent by a doctor meet health assistant, nurse and other health staff for their ailment. But due to huge rush at OPD these staff were not sufficient for their treatment. So, the health professional gave enough time of consultation to only 10.53%. 34.21% was not paid enough consultation time. During consultation with the health professional explanation of the disease was provided partially to most (40.13%) of the respondents. Due to a large number of patient and a lots of managerial jobs for the attending doctors most of the respondents (48.88%) were not satisfied with the existing health care delivery at OPD and majority (70%) told that this service was not well organized. Management effectiveness and efficiency of the existing healthcare service rated as fair (28.44%), poor (24.22%), good (21.57%), very good (13.77%) according to the opinion of the respondents. Basically, it is a difficult job for a doctor to maintain treatment of the patient as well as management of a healthcare system. Ultimately 65.12% respondents sought for a need managerial personnel other than doctor. This response for need of managerial personnel is statistically significant on basis of age groups, gender, educational status, religion and occupation but response was not significant on basis of the respondents' monthly family income.

## Conclusion

Study findings concluded with the need for attentive, careful doctor at Hospital who can listen to the patient and ultimately dexterous managerial personnel other than doctor for health management.

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## References

1. Asian Development Bank (ADB) Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Asian Development Fund Grant to the People's Republic of Bangladesh for the Second Urban Primary Health Care Project. RRP: BAN 36296. ADB. May;2005.
2. Bleich S N, Özaltin, Murray CJL. How does satisfaction with the health-care system relate to patient experience? *Bulletin of the WHO*. 2009;87:271-278.
3. Blendon RJ, Benson J, Donelan K, Leitman R, Taylor H, Koeck C. Who has the best health care system? A second look. *Health Aff*.1885;14:220-230.
4. Islam Z, Jabbar A. Patients' Satisfaction Of Health Care Services Provided At Out Patient Department Of Dhaka Medical College Hospital, *Ibrahim Med. Coll. J*.2008; 2(2):55-57.
5. Khan M J. Bangladesh Model of Eye Care (Modular Eye Care, MEC), *Community Eye Health*. 2000;13(34):24-25.
6. Nguyen Thi PL, Briancon S, Empereur F, Guillemin F. Factors determining inpatient satisfaction with care. *Soc Sci Med*. 2002;54:493-504.
7. Sofaer S, Firminger K. Patient perceptions of the quality of health services. *Annu Rev Public Health*. 2006;26:513-559.
8. Willcox S. Measuring and Reducing Waiting Times: A Cross-National Comparison of Strategies, *Health Affairs*. 2007;26(4):1078-1087.