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Patient Waiting Time in the Out Patient Department of a Tertiary Health Hospital in Mumbai

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Abstract – The amount of time a patient waits in the Out Patient Department to be seen is one factor which affects the utilization of health care services. Patient satisfaction has emerged as an increasingly important parameter in the assessment of quality of health care; hence, healthcare facility performance can be best assessed by measuring the level of patient's satisfaction. This was a cross-sectional descriptive study carried out at the out patients' departments of the Bhatia Hospital, Mumbai. A total of 384 new patients were randomly selected into the study. A set of pretested questionnaires was used to extract information from the respondents; descriptive statistics was used for analysis. A total of 118 (31%) of the patients waited for less than an hour in the waiting room, while 371 (96.6%) spent less than 30 min with the doctor. More than half, 211 (55%) of the respondents were satisfied with the service delivery in the hospital, while only 63 (16%) of the respondents admitted to being given health talks while waiting to be seen by the doctor. Although majority of the patients waited for more than 1 h before being attended to, more than half of them were however satisfied with the services rendered to them. There is the need for health care institutions and providers to put in place measures aimed at reducing waiting time and ensuring patient satisfaction.

Key Words: Waiting Time, Outpatient Department, Satisfaction, Mumbai.

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INTRODUCTION

Patients are attended in various outpatient units within the hospital system, but almost invariably, a high percentage of these patients arrive and leave the hospital at various times. The amount of time a patient waits to be seen, is one factor which affects the utilization of health care services (Fernandes et al., 1994; dos Santos et al., 1994) and patients perceive long waiting times as barriers to actually obtaining services (Kurata et al.,1992). In a competitively managed health care environment, patient waiting time play an increasingly important role in a clinic's ability to attract new business. It is difficult to sell services if individuals are dissatisfied with waiting time which is the length of time from when the patient entered the waiting room or the consulting room to the time the patient actually left the hospital (Mackey and Cole, 1997).

Additionally, waiting time becomes a factor in retaining current users of the services. Patient satisfaction has emerged as an increasingly important parameter in the assessment of quality of health care; hence, healthcare facility performance can be best assessed by measuring the level of patient's satisfaction. A completely satisfied patient believes that the organization has potential in understanding patient needs and demands related to health care (Net et al., 2007). A study in the United Kingdom concluded that, patient satisfaction is directly correlated with waiting times to see a doctor (Maitra and Chikhani, 1992) while another study found that, because of prolonged waiting times, a substantial number of patients left outpatient departments (Fernandes et al., 1994).

A study of this nature is critical to public appreciation of the quality of health care operating environment; hence, this study was aimed at assessing patients' waiting time and factors affecting waiting in the outpatients' departments.

Data generated from the study could be used by hospital administrators to address gaps in human resources, logistics, infrastructures and other internal procedures towards ensuring an effective health care delivery system.

MATERIALS AND METHODS

This cross-sectional descriptive study was carried out at the outpatient clinics of the Bhatia Hospital located in Mumbai, Maharashtra state, from March 2012 to February 2013. The Hospital serves as a referral centre in the Mumbai and has a 209 bed capacity and runs outpatient clinics in the departments of Medicine, Surgery, Pediatrics, Family Medicine and Obstetrics and Gynecology. Each of the outpatient clinics sees an average of about 70 patients daily. The study population consisted of patients attending the outpatient clinics in the hospital and based on the high patient turn out, the medical, pediatrics, surgical and gynecological outpatients were used for the selection of the study subjects.

A one in four samples of 384 patients attending the out-patient units of the hospital were randomly recruited into the study over a five day period. All patients attending the outpatient clinics were enlisted into the study (inclusion criteria) while critically ill patients were excluded. Data was gathered using a set of comprehensive and pretested questionnaires, administered by four trained research assistants. The questionnaires sought such information as socio-demographic characteristics like age, sex, occupational and educational status. Other information elicited from the patients included, time spent in the waiting rooms, time spent with the doctor, causes of long waiting period and the level of satisfaction with services offered by the hospital. Satisfaction was assessed using Likert's five rating scale (1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, 5 = very satisfied). Patient satisfaction was determined by asking such questions about comfort in the waiting room, physical environment, patient- doctor interaction, conduct of other health care providers, availability of medical resources, quality of health care etc. A stop watch was used to record the time spent in the waiting room and time spent with the doctor in the consultation room.

For the purpose of this study, the time spent in the waiting room was considered as the time the patient entered the waiting room until all the protocols leading to being registered to see the doctor is completed, while consulting room waiting time is from when the patient entered the consultation room and is out after history and examination by the doctor. Data analysis was done using EPI-Info version 3.3.2 software computer program and Graph Pad instat.

Cross tabulation of variables were made where feasible, to determine statistical significance of variables which was set at P <0.05.

ETHICAL CONSIDERATIONS

Ethical approval was sought and obtained from the ethical clearance committee of the hospital. The permission of the various heads of the outpatient departments was also sought while informed verbal consent of the patients was obtained and each patient enlisted was given the option to opt out when necessary.

RESULTS

Of the 384 patients that were recruited into the study, 303 (79%) of them visited the outpatient departments for the first time. The ages of the respondents ranged from 20 to 72 years with a mean age of 38 years. A total of 171(45%) of the respondents were males while there were 213 (55%) females. 162 (42%) of the respondents had no formal education while 222 (58%) had formal education with 14% of them attaining tertiary education. The occupational status of the respondents showed that, farmers were 83 (22%), civil servants 62 16%) and 137 (36%) were unemployed (Table 1). The duration of waiting time in the clinics varied from 10 to 165 min. A total of 118 (31%) of the patients waited for less than 1 h while majority, 266 (69%) of them waited for more than 1 h, with a mean waiting time of 85 min.

Time spent with the doctor in the consultation room varied from 5 to 35 min, majority, (96.6%) spending less than 30 min with the doctor, while only 3.4% spent more than 30 min, with a mean time of 14 min (Table 2). It was observed that the patients who had formal education spent less time in the waiting room compared to those without formal education, and this was found to be statistically significant (P<0.0001) (Table 4). Patients' perceived causes for long waiting time in decreasing order were large number of patients with few doctors to attend to them 108 (28%), patients jumping queue 82 (21%), doctors taking too long to attend to a patient 70 (18%), doctors arriving late to duty 62 (16%) while 14 (4%) of them attributed the long waiting time to the long search for patients' cards (Table 3). Majority, (78%) of the patients believed the ideal waiting period should not be longer than 30 min from the time of arrival in the hospital, till the time the patient is attended to by the doctor.

Overall, more than half, 211 (55%) of the respondents were satisfied with the service delivery in the hospital with 138 (36%) of the respondents rating the services as satisfactory, while 73 (19%) of them rated the services as very satisfactory. More females than males expressed satisfaction with the services rendered in the outpatient departments and this was found to be statistically significant (P=0.003) (Table 5). Although more patients who expressed satisfaction with services spent less time (<30 min) for consultation compared to those who were dissatisfied, this was however found not to be statistically significant (P=0.134; Table 6). Majority, 83 (70%) of the patients who spent less than 1 h in the waiting room expressed satisfaction with services received P<0.0001 (Table 7). Only 63 (16%) of the respondents admitted to being given health talks while waiting to be seen by the doctor while 48 (13%)

said they watched television to reduce boredom or watched happenings in the OPDs.

DISCUSSION

In this study, the mean age of the respondents was 38 years which is low compared to the mean age of 45 years obtained in a similar study in Karachi, Pakistan (Jawaid et al., 2009). The lower mean age observed in our study may not be unrelated to the fact that, more than half of our study subjects were less than forty years of age.

Findings from our study also showed that majority, 303 (79%) of the respondents visited the OPDs for the first time which compares favorably with the finding from Pakistan (Jawaid et al., 2009). The mean waiting time observed in this study was 85 min. This is high when compared to the findings from similar studies in other centers with lower figures for waiting time (Mackey and Cole, 1997; Net et al., 2007; Jawaid et al., 2009; Okotie et al., 2008; Pothier and Frosh, 2006). However, dos Santos (1994) and his colleagues observed that, 62% of their respondents had a mean waiting time of 188 min. Other studies also observed waiting times of 148 and 152 min respectively (Bamgboye and Jaralla, 1994; Thatcher, 2005) which were higher than the 85 min recorded in our study.

Table 1. Socio-demographic characteristics of respondents

(n=384)

Age (years)	n (%)
20-29	141 (37)
30-39	89 (23)
40-49	88 (23)
50-59	33 (9)
60-69	22 (6)
>70	11 (3)
Educational status	
None	9 (2)
Hindi	153 (40)
Primary	77 (20)
Secondary	91 (24)
Tertiary	54 (14)
Occupational status	
Farmer	83 (22)
Trader	43 (11)
Civil servant	62 (16)
Student	30 (8)
Business	29 (8)
Unemployed	137 (36)

Table 2. Patients' waiting times (n=384).

Time spent in the waiting room (minutes)	No. (%)
<60	118 (31)
60-119	182 (47)
≥120	84 (22)
Time spent in consultation room with doctor	**No. (%)**
5-10	148 (39)
11-15	96 (25)
16-20	61 (16)
21-25	39 (10)
26-30	27 (7)
>30	13 (3)

Table 3. Patients' perceived causes of long waiting time (N=384)

Causes of long waiting time	No. (%)
Doctor arrived late	62 (16)
Long search for cards	14 (4)
Large numbers of patients with few doctors	108 (28)
Patients jumping queue	82 (21)
Doctor taking too long a time to see a patient	70 (18)
No response	48 (13)

The long waiting time observed in this study may not be unrelated to the realities in developing countries where health care providers are overwhelmed by large numbers of patients. In India, patients will have to wait longer on the queues before seeing their providers, as long as the imbalance in the doctor – patient ratio is not addressed. The commonest reason adduced by our respondents for the long waiting time was, few doctors to attend to the large number of patients on the queue. This is a common finding in most health care centers across India due to the shortage of medical doctors and other health care providers. Similar reasons were observed in the study from Jaslok Hospital, Mumbai (2005). A disproportionate number of doctors and patients would increase patient waiting time. Over the years, population has increased several folds without a commensurate increase in the number of health care providers. The World Health Organization (WHO) target for doctor to population ratio is one per 1000. However, the doctor patient ratio is only one per 25,000 in the 25 poorest countries of the world including India. With this trend, patient waiting times in our GOPDs will be a recurring decimal.

The Institute of Medicine (IOM) has since recognized the problems of prolonged waiting time resulting in dissatisfaction among patients and had therefore recommended that at least 90% of patients should be attended to within 30 min of their scheduled appointment time (O'malley et al., 1993). It was therefore not surprising that, a majority, 78% of our study subjects were of the opinion that, the ideal waiting time should not be longer than 30 min from the time of arrival in the hospital to the time the patient is attended to by the doctor. Our findings showed that, only 45% of the patients were actually satisfied with the services in the OPDs. This is in contrast with the findings from Ibadan and Malasia where high levels of satisfaction with services assessed were observed (Ajayi et al., 2005; Prasanna et al., 2009). This difference could be explained by hospital and socio-cultural settings and also the availability of medical resources. Gender has

been noted as an important factor affecting patient satisfaction (Davis and Duff, 1999; Derose et al., 2001). The need for the respect and privacy of female patients may be greater than among males.

Table 4. Time spent in the waiting room and educational status.

Time spent in waiting room (min)	Educational status		
	Formal	Non-formal	
<60	95	23	118
_60	127	139	266
Total	222	162	384

(X_2= 34.7; df=1; P<0.0001)

Table 5. Pattern of satisfaction according to Gender.

Satisfaction	Gender		
	Female	Male	
Yes	135	76	211
No	78	95	173
Total	213	171	384

X_2 =12.98; df=1; P=0.003

Table 6. Time spent with doctor in consulting room vs. pattern of patient satisfaction

Time spent with doctor(min)	Pattern of patient satisfaction		
	Yes	No	
<30	207	164	371
_30	4	9	13
Total	211	173	384

X_2 =2.25; DF= 1; P=0.134

Table 7. Time spent in waiting room vs. pattern of satisfaction.

Time spent (min)	Pattern of patient satisfaction		
	Yes	No	
<60	83	35	118
_60	128	138	266
Total	211	173	384

X_2= 15.42; DF= 1; P<0.0001

According to the results of this study, female patients (35%) were more satisfied with health services provided in the OPDs than male patients (20%) and this difference was found to be statistically significant (P=0.003). This finding was found to be consistent with the results from other studies (Net et al., 2007; Roy, 2002). One important component of measured health care is quality of patient satisfaction (Okotie et al., 2008). It has been observed that patients are least satisfied while waiting times are longer than expected, relatively satisfied when waiting times are perceived as equal to expectations and highly satisfied when waiting times are shorter than expected (Thompson and Yarnold, 1995). Findings from this study showed that, the patients who waited longer (_ 60 min) expressed dissatisfaction with services rendered in the OPDs (P<0.089) The number of patients who expressed satisfaction (45%) with the services in the OPDs is low when compared with 95% obtained in the study by Maitra and his colleagues (Maitra and Chikhani, 1992). The high level of satisfaction recorded in their study could be attributed to differences in settings, as their study was carried out in a more developed country with enormous human and material resources.

The same study by Maitra and his colleague showed a significant correlation between satisfaction and waiting time, to see the doctor as those that waited for shorter periods, to see the doctor expressed satisfaction with services they assessed. Patients with formal education were found to have spent less time (<60 min) in the waiting room (P=0.0001). This could be due to the fact that, they are more likely to be gainfully employed and therefore are in a haste to get back to their places of work early. From the results of this study, 22% of the patients who spent less than 1 h in the waiting room were more satisfied with services (P<0.0001) as compared with 33%, that spent more than 1 h. Researchers have found that, as waiting time increases, patients are more likely to leave emergency departments without being seen by a doctor or are dissatisfied with services (dos Santos et al., 1994; Dershewitz and Paichel, 1986; Baker et al., 1991; Bindman et al., 1991).

The time spent before seeing the doctor can always be made useful if patients are engaged in activities to reduce boredom. In this study, only 16% of the patients admitted to being given health education on important health issues while majority either watched television or watched happenings in the OPDs. This finding is in consonance with those of Ajayi in Ibadan, where it was observed that, the three common activities patients engaged in during waiting time were watching happenings in the clinics, reading and chatting (Ajayi et al., 2005). The study by Bamgboye and Jarallah (1994) showed similar activities by their respondents; however, the respondents in their study showed a preference for health education programmes for specific diseases. Thus, the constructive use of patient waiting time can be made to provide greater patient satisfaction through effective health education activities in the OPDs.

CONCLUSION

This study has demonstrated that, majority of the patients were dissatisfied with services offered and the major cause of dissatisfaction was the long waiting time. There is the need for health care facilities and hospital administrators to address gaps in human resources, logistics and other internal procedures aimed at reducing waiting times and thus ensuring an effective health care delivery system.

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