Waiting time for general cases: Experience of an outpatient health centre in Brunei Darussalam

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ABSTRACT

Introduction: The Ministry of Health Patients’ Charter (Tekad Pemedulian Orang Ramai, TPOR) for the outpatient service states that the waiting time for doctor consultation should be between 30 and 60 minutes. There is currently no published data on what proportions of patients are seen with the state time. This study assessed the waiting time of patient categorised as general cases in a busy government outpatient Health Centre. Materials and Methods: Patients presenting as general cases to the Bandar Seri Begawan Health Centre during office hours over a period of 11 consecutive weeks (51 working days and four public holidays) were included in the study. General cases were all walk-in unscheduled cases excluding flu or influenza-like illness cases. All Out-patient Morbidity Return sheets were collected on a daily basis. The waiting times were collated and categorised as within 60 minutes or more than 60 minutes. The morning sessions and afternoon sessions were assessed and compared. Data was entered in the Microsoft Word Excel programme for analyses. Standard deviations were calculated by Laerd Statistics programmes. Results: Overall, 2,165 were studied: 1,308 (60.4%) in the morning sessions, and 857 (39.6%) in the afternoon sessions. The mean number of general cases per day was 30 for the morning sessions and 20 for the afternoon sessions. A total of 793 (61%) from morning sessions and 754 (88%) from afternoon sessions had a waiting time of 60 minutes or less. The overall mean waiting time for the morning and afternoon sessions were 58 ± 32 minutes and 37 ± 19 minutes respectively. There was no consistent pattern in mean waiting time for the morning or afternoon sessions through each week. For the morning sessions, the number of cases peaked on Mondays, Wednesdays, and Saturdays whereas the afternoon sessions, there was no trend through each week, regardless whether Mondays were public holidays or not. Conclusions: This study showed that waiting times were within the recommendation only in less than two third in the morning sessions and higher in the afternoon sessions. Features of the morning clinic sessions need to be assessed to study the reason for the less than satisfactory patients’ waiting time.

Keywords: Outpatient appointment, waiting time, satisfaction

INTRODUCTION

In any services, it is important that the waiting time for clients are within the acceptable limit to avoid any dissatisfactions. Often a bar is set where a proportion of clients should be seen with the set waiting time. Often, waiting time is used as a gauge and as one of the
many quality performance indicators. This is also true in healthcare, both in the private and public sectors, and between the various specialties. 1-7 Universally, it is known that the waiting times in the public sector are often long due to the patient load. There are many reasons why delays occur and these include overbooking, too many patients, too few doctors or clinics, unscheduled attendances, and even effects of public holidays on the subsequent working days. 8, 9

In Brunei Darussalam, the Ministry of Health Patients’ Charter (Tekad Pemedulian Orang Ramai or TPOR) was introduced in 2003 to ensure that patients are seen within specified waiting times. The TPOR for the outpatient service states that the waiting time for doctor consultation should be between 30 and 60 minutes after registrations. For the charter to be considered to be adhered to, the objective need to be met in at least 80% of the patient load. There is currently no published data on what proportions of patients are seen within the state time. This study was done to assess the waiting time of general cases, those who have been given appointment (scheduled visits) in a busy government outpatient Health Centre in the capital of Brunei Darussalam.

MATERIALS AND METHODS
Subjects and setting: Patients presenting as general cases to the Bandar Seri Begawan Health Centre (Ong Sum Ping Clinic) during office hours over a period of 11 consecutive weeks (51 working days and four public holidays) were included in the study. Ong Sum Ping (OSP) clinic is the busiest government outpatient clinics in the country and has a large population catchment. This is one of the few clinics that provide services during the non-working days (Friday and Sunday), and occasionally public holidays. Working hour starts from 7.45 am to 12.15 pm in the morning session followed by a lunch break, and later the afternoon session which start from 1.30 pm to 4.30 pm. This is followed by the evening session which starts from 7.00 pm to 9.00 pm.

General cases were all walk-in unscheduled cases excluding flu or influenza-like illness cases. All Out-patient Morbidity Return sheets were collected on a daily basis. For the study, all cases where the Out-patient Morbidity Return sheets was incomplete were excluded (time of registration and/or time of beginning of consultation not stated), illegible recording, or erroneous data (the time of registration recorded as after or the same as the time of the beginning of consultation). During the study period, no registration times were recorded for one session due to power failure and these were also excluded from the study.

Definitions: "General" cases consisted of all walk-in cases excluding flu or influenza-like illness cases, and timed appointment cases (locally termed "PHY"). General cases typically were seen by the principal doctors running the 'General' clinic, but when the patient loads were overwhelming, doctors from the flu or timed appointment clinic provided assistance.

The term "waiting time" referred to the length of time from registration to the beginning of consultation. The "time of registration" was the time stated on a patient’s electronically printed registration ticket. The term "office hours" referred to the daily time
periods of 7.45 am to 12.15 pm and 1.30 pm to 4.30 pm on Mondays to Thursdays, and Saturdays, unless the day happened to be a public holiday.

The target population were all patients categorised as general cases at the Bandar Seri Begawan Health Centre during office hours over a period of 11 consecutive weeks. No sampling was done; the audit included the entire target population.

**Data collection:** Data collected include the time of registration, time of the beginning of consultation, and nature of presentation of every patient. These data were obtained from Out-patient Morbidity Return sheets. The time spent waiting were calculated from the data collected. The waiting times were collated and categorised as within 60 minutes or more than 60 minutes. The morning sessions and afternoon sessions were assessed and compared.

**Statistics:** Data was entered in the Microsoft WordExcel programme for analyses. Standard deviations were calculated by Laerd Statistics programmes.

**RESULTS**

Overall, there were 2,710 general cases recorded over the study period, 1,624 (60%) in the morning sessions, and 1,086 (40%) in the afternoon sessions. Of these, only 2,165 (80%) cases were included: 1,308 (81%) in the morning sessions and 857 (79%) in the afternoon sessions.

For the morning sessions, the daily number of general cases recorded tended to peak on Mondays, Wednesdays, and Saturdays, (Figure 1). However, when Mondays were public holidays, the peaks were on Tuesdays and Saturdays. For the afternoon sessions, there was no trend seen through each week, regardless whether Mondays were public holidays or not. The mean daily number of general cases recorded for the morning sessions was 30, while that for the afternoon sessions was 20. The maximum daily number of general cases recorded for the morning and afternoon sessions were 49 and 40 respectively.

![Fig. 1: The trend in the number of attendance for both morning sessions (Blue) and afternoon sessions (Red).](image-url)
A total of 793 (61%) general cases from the morning sessions and 754 (88%) general cases from the afternoon sessions had a waiting time of 60 minutes or less.

The overall mean waiting time for the morning and afternoon sessions were 58 ± 32 minutes (median 52 minutes) and 37 ± 19 minutes (median 33 minutes) respectively. This ranged from one to 182 minutes for the morning sessions, and two to 102 minutes for the afternoon sessions.

There was no consistent pattern on the daily mean waiting time for the morning or afternoon sessions through each week (see Figure 2). However for both sessions, it tended to be longest on Tuesdays when the preceding Mondays were public holidays.

DISCUSSION
The study found that there were overall more cases in the morning sessions, and this translated to longer waiting time for the morning sessions compared to the afternoon sessions. This is consistent with unpublished study in other outpatient clinics which also showed more patients in the morning sessions. This is not unexpected considering that the overall working hours is longer in the morning (7.45am to 12.15pm; 4.5 hours) compared to the afternoon (1.30 pm to 4.30 pm; 3 hours).

The peaks in the daily number of general cases recorded for the morning sessions on Mondays, Saturdays, and Tuesdays (where Mondays were public holidays) could represent the effect of the preceding non-working days. However, it does not explain the frequent peaks seen on Wednesday mornings or the absence of any trend for the afternoon sessions. A study looking at a busy outpatient pharmacy in India reported that week days were generally more crowded that the weekend. Work schedules and social behaviours are important factors that affect the workload pattern. Interestingly, there was no marked reduction in the daily number of general cases throughout the month of December, a school-term holiday period, compared to the other months (Figure 1). It is possible that the holiday period only affected the total case loads.

Case loads (n)

Fig. 1: The trend in the number of attendance for both morning sessions (Blue) and afternoon sessions (Red).
number of flu or influenza like illness cases which was not included in this study, rather than the general cases. Data spanning across 12 or more months would be useful to realise any effect of school holidays on the waiting times in government health clinics.

The proportions of general cases with waiting times of 60 minutes or less in the morning and afternoon sessions were similar to previous unpublished observations from various health centres (77-92% of patients were seen within 60 minutes). The big standard deviations suggested a wide spread of values, so the means were more representative than the medians. For service assessment, the maximum values would probably be given greater attention. Generally, the proportions of patients seen within the stated waiting time were consistently better in the afternoon sessions compared to the morning sessions throughout the study period. This is most likely due to the lower case load in the afternoon sessions.

The overall waiting time was for the morning and afternoon sessions were 58 ± 32 minutes (median 52 minutes, range one to 182 minutes) and 37 ± 19 minutes (median 33 minutes, range two to 102 minutes) respectively. The average numbers of patients per doctors for the morning and afternoon sessions were 30 and 20 respectively. Taking into account the working hours available for the morning and afternoon sessions, the average time spent per patient were roughly 9.2 and 9.0 minutes respectively. The clinics usually finish at least 15 minutes before the official end of office hours (12.00 noon for the morning sessions and 4.15 pm for the afternoon sessions). Given that the time spent per is roughly similar, the longer waiting in the morning is not due to doctor factor. It is likely that some of these factors include time spent tracing patients’ medical records and tracing results. Now that the electronic record system (Bru-HIMS, Brunei Darussalam Health Information and Management Systems) has been implemented and started in the outpatient clinic services, factors resulting in time delay such as tracing medical records and investigations should not become a factor.

In our study, it was not possible to correlate the number of doctors with waiting time as doctors from the Flu or timed appointment clinics also attended to general cases but on an ad hoc basis. The number seen by these doctors running other clinics could range from many patientsto as few as one patient. This partial involvement could not be explicitly quantified, so no proper analysis and association could be made.

The main limitation for this study was that it was carried out in a single government clinic and this findings form this clinic may not be completely generalisable to other government clinics. However, the findings are consistent with previous unpublished studies done in other government clinics. Furthermore, the clinic set up are the same for all clinics with almost similar doctors to patients load. Therefore, one can assume that the waiting times trends will be almost the same.

In conclusion, this study showed that waiting times were achieved within the recommendation only in less than two third in the morning sessions and higher in the afternoon sessions. Features of the morning clinic sessions need to be assessed to study the
reason for the less than satisfactory patients’ waiting time.

REFERENCES