



# Comparison of Visit Length and Waiting Time of Patients in Public and Private Clinics in the North of Iran

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## Abstract

**Background:** The visit length is considered one of the indicators for assessing patients' satisfaction. Factors such as waiting time for getting a visit affects the desirability of the visit.

**Objectives:** This study aimed to investigate the visit length and waiting time of patients in public and private clinics in Tabriz.

**Methods:** This is a descriptive-analytic study conducted in five clinics in 2018. A questionnaire-based survey was used to collect data from 386 participants recruited through simple random sampling. Mann-Whitney U and Kruskal-Wallis tests were applied to analyze the data using SPSS version 22.0.

**Results:** Overall, the mean visit length was 25.5 and 25.4 min in public and private centers, respectively, while the mean waiting time was 141.2 and 156.4 min in public and private centers, respectively. There was no significant difference between public and private centers regarding the visit length ( $P > 0.05$ ); however, there was a significant difference between public and private centers in terms of waiting time ( $P < 0.05$ ).

**Conclusions:** The waiting time was too much, especially in private clinics, which can negatively affect patient satisfaction. Therefore, suggested interventions may consist of using internet and telephone admission, scheduling a waiting list, and requiring physicians to be present on time.

**Keywords:** Office Visits, Outpatient Clinics, Visit Time, Waiting Time

## 1. Background

Given that high-quality healthcare is the fundamental right of every patient, the patients should benefit from the best diagnostic and therapeutic facilities. Today, patients consider the best service as a service that is available as soon as possible (1-3). The prompt treatment in health facilities is to minimize the time for receiving a health service, emphasizing the desirability of the treatment. The visit length refers to "the time taken from entering to leaving the examination room." Further, the visit length is considered one of the standard process indicators and an indicator for assessing the patients' satisfaction with the process of providing health care (1, 2). It is influenced by several factors, such as physician and patients' characteristics, physician-patient relationship, structural factors, and

so on (3). An ideal visit announced by some studies lasts about 10 min for general practitioners (GP) and about 15 min for specialists (4).

Factors such as waiting time for getting a visit affects the desirability of the visit. The waiting time refers to the time that the patients spend before being visited by any medical staff in the clinic (5, 6). The waiting time is considered an obstacle for patients' access to care and an important performance indicator of health systems. The long waiting time leads to the patient's distress and dissatisfaction, and reduced physician-patient relationship (7, 8). The outpatients' waiting time is an important index of the quality of the services. Based on the results of the majority of the studies, the mean waiting time was higher than that which might be desirable for patients (4, 9, 10).

## 2. Objectives

This study aimed to investigate the outpatient's duration of visit, waiting time, and also associated factors with visit length in public and private clinics of Tabriz, Iran.

## 3. Methods

This descriptive-analytic study was conducted from December 2018 to March 2019. The clinics of the Imam Reza Hospital, Shaikh-al-Raeis, Taleghani Hospital (public centers) and clinics of Behboud Hospital, and the Valiasr Hospital of Tabriz (private centers) were randomly selected. Patients referring to internists, obstetrics and gynecology, general surgery, and pediatrician (the four main specialty fields) were studied. The sample size was estimated based on the following formula and 386 patients were selected using simple random sampling ( $p = 0.5$ ,  $d = 0.05$ ):

$$n = \frac{z^2 pq}{d^2}$$

The inclusion criteria were being able to read or speak Persian or Turkish (patient or his/her companion) and the patient's willingness to participate in the study. The checklist with three parts (including structure, process, and outcome) was used to collect data. Before data collection, written informed consent was signed by all patients. The data were collected while the researcher was present in the selected clinics in the morning and evening shifts. The waiting time and visit length were determined by the presence of the researcher and allocating the checklist number to each patient, and recording the time from entering until leaving the examination room. The initial admission time was recorded according to the waiting list for the visit, and the waiting time was calculated from the admission until receiving the visit. Eventually, the waiting time before the admission was estimated through the patient's self-declaration. The data were analyzed using SPSS version 22 and Mann-Whitney U and Kruskal-Wallis tests ( $P < 0.05$ ).

## 4. Results

The patients' demographic information is presented in Table 1. All physicians participating in the study were married, and most were male (68.1%). The age range of the majority of specialists was between 49 - 45 (37.8%), and most of them had 15 years or higher work experience (49.7%). The results showed that the total mean of the visit length in public and private centers was 25.5 and 25.4 min, respectively. The mean waiting time before admission and

**Table 1.** Patients' Demographic Characteristics

Characteristics	No. (%)
<b>Sex</b>	
Male	286 (74.1)
Female	100 (25.9)
<b>Education</b>	
Illiterate	38 (9.8)
Under the diploma	103 (26.7)
Diploma	128 (33.2)
Associate degree	27 (7.0)
Bachelor's degree	73 (18.9)
Master's degree and higher	17 (4.4)
<b>Occupation</b>	
Self-employment	75 (19.4)
Unemployed	5 (1.3)
House keeper	230 (59.6)
Employee	47 (12.2)
Retired	4 (1.0)
Student	25 (6.5)
<b>Marital status</b>	
Single	47 (12.2)
Married	339 (87.8)
<b>Monthly family income (Rial)</b>	
< 15000000	247 (63.9)
15000000 - 20000000	86 (22.3)
> 20000000	53 (13.7)
<b>Place of residency</b>	
Tabriz	245 (63.2)
Other cities	103 (26.7)
Rural areas	38 (9.8)
<b>Insurance type</b>	
Rural health insurance	47 (12.1)
Public health insurance	110 (28.5)
Social security	174 (45.1)
Armed forces	18 (4.7)
Others	37 (9.6)

from admission until visit were 84.1 and 57.1 in public centers and 99.2 and 57.3 in private ones. The total mean of the waiting time in the public centers was 141.2 min and in private centers was 156.4 min (Table 2).

The results of the statistical tests indicated no significant association between the visit length and patients'

**Table 2.** The Mean Visit Length and Waiting Time

Variables	Public Clinics <sup>a</sup>	Private Clinics <sup>a</sup>	Test Statistic	P-Value
Visit length	25.5 ± 26.3	25.4 ± 24.9		
Waiting time before admission	84.1 ± 28.5	99.2 ± 4.0	-0.225	0.825
Waiting time from admission until visit	57.1 ± 31.9	57.3 ± 34.1	-0.175	0.861
Total waiting time	141.2 ± 40.1	156.4 ± 34.2	-6.145	0.008

<sup>a</sup> Values are presented as mean ± SD.

marital status, education level, occupation, monthly family income, and place of residence ( $P > 0.05$ ). However, there was a significant association between the visit length of patients' sex and their type of insurance, as the patients with armed forces insurance had the highest visit length ( $P < 0.05$ ). There was a significant association between sex and visit length ( $P < 0.001$ ), as female physicians spent longer visit time than male physicians. However, regarding marital status, no such significant association was observed ( $P > 0.05$ ). Also, the results of the Kruskal-Wallis test indicated the significant association between fields of specialty and length of visit ( $P < 0.001$ ), as the visit duration for obstetricians was more than others. The correlation between the visit length and specialist's age and years of experience demonstrated a significant correlation between the visit length and age ( $r = -0.159$ ,  $P < 0.001$ ) and years of experience ( $r = -0.315$ ,  $P < 0.001$ ). The visit length decreased by increasing the specialist's age and years of experience ( $P < 0.05$ ).

## 5. Discussion

Based on the results, the mean visit length was higher than the standard announced by MOHME and also in comparison with the early studies. In addition, the mean waiting time was high. The waiting time in the private centers was more than that of the public ones. The visit length was related to the patient's satisfaction and reflected the quality of the care, and a shorter visit length was associated with lower quality of prescribed medicine and poor quality of care. The results indicated that the mean visit length in public and private centers was 25.5 and 25.4 min, respectively. The mean waiting time (total waiting time before admission and from admission until examination) in public and private centers was 141.2 and 156.4 min. The findings of Heydarvand reported that the mean visit time was 4.89 min (11). In another study conducted in Tabriz, the mean outpatient visit length was 8.52 min and the total mean of the waiting time was 101.57 min (12). This difference is due to the simultaneous admission of several patients in the

present study. Given that the researcher could not enter the examination room due to ethical issues, the researcher had to consider the time taken from entering to leaving the examination room altogether. Accordingly, the total mean of the visit length was lower than the standard (15 min). However, in most studies, the mean visit length in private centers was high because the referral to the private sector was less, and the physician had more time for the patient. Based on the findings of Blumenthal et al. (13), the visit length of patients was 16.3 min, and factors such as the characteristics of patients, physicians, geographic environment, and visit centers influence the visit length. In the studies of Migongo et al. (14), Aeenparast et al. (15), and Chen et al. (4), the mean visit length was 14.5, 10, and 34.3 min, respectively during the whole day. The finding of this study regarding waiting time is consistent with the results of Nguyen et al. (7) and Aeenparast et al. (15).

This study demonstrated a significant association between the patients' sex and the visit length, which is in line with the findings of Petek Šter et al. (16) and Lo et al. (17). However, it is different from the results of the studies conducted by Guy and Richardson (18), Andersson et al. (19), and Khoong et al. (20). There was a significant association between the visit length and type of insurance and the fields of the specialty of the physicians, which is consistent with the results of Guy and Richardson (18) and Khoong et al. (20).

### 5.1. Conclusions

Given that long waiting time is considered one of the main reasons for patient dissatisfaction, it is recommended to develop and implement programs for improving the service delivery processes, such as the time and way of admission, the attendance program of physicians, etc. Therefore, suggested interventions may consist of using internet and telephone admission, scheduling a waiting list, and requiring physicians to be present on time.

## Footnotes

**Authors' Contribution:** It was not declared by the authors.

**Conflict of Interests:** The authors declared no conflict of interests.

**Ethical Approval:** This study was approved by the Ethics Committee of Tabriz University of Medical Sciences (Code number: IR.TBZMED.REC.1397.114).

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**Informed Consent:** Before data collection, written informed consent was signed by all patients.

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