

Patient Satisfaction is Highly Correlated to Lobby Wait Time

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Background

The data used in this study is from a PatientTrak customer that operates in the urgent and primary care setting. The data set consists of 620 patient visits representing over 52,000 individual data points over a three-month timeframe. The patient data including lobby wait time, clinical time, overall arrival-to-discharge time and patient survey responses was captured using PatientTrak software. All patient visits used in the study followed a similar care progression process and generally reported a homogeneous set of illnesses. The care process using PatientTrak was very uniform due to the workflow standards used at the facility.

INTRODUCTION

Patient satisfaction is a key goal for most healthcare organizations. It leads to increased patient retention, improved online ratings and higher revenues¹. Many studies in the healthcare environment connect patient satisfaction to lobby wait time using subjective patient feedback as their basis².

This study correlates actual patient lobby wait time to overall patient satisfaction

Data Methodology

The data set was driven by a consistent process and patient type to eliminate any effect multiple patient types could introduce into the results. The data for each patient visit contains three time-related values (columns 1-3) and four survey response ratings (columns 4-7) from each patient visit.

Once the data set was organized the team conducted correlation runs to see which column comparisons had the highest levels of correlation.

First Name	Last Name	1	2	3	4	5	6	7	Column	Description
XXX	XXX	45	50	95	5	5	5	4	1	Lobby Wait Time
									2	Exam Room Time
									3	Total Arrival-to-Discharge Time (sum of columns 1 and 2)
									4	Overall rating
									5	Rating of Exam Room Wait Time
									6	Rating of Medical Care Received
									7	Rating of Lobby Wait Time

Correlation

The goal of this study was to determine if there is a significant correlation between lobby wait time and overall rating as a representation of patient satisfaction.

The strength of correlation results from the study:

Comparison	Correlation Coefficient
Lobby Wait Time to Lobby Wait Rating	-0.611
Lobby Wait Time to Overall Rating	-0.255
Exam Room Time to Exam Room Rating	-0.201
Arrival-to-Discharge Time to Overall Rating	-0.196
Exam Room Time to Overall Rating	-0.005

Lobby wait time drives overall rating more than any other wait time during care progression.

Lobby Wait Time shows the highest correlation (-0.255) of any time values when comparing them to Overall Rating. Lobby Wait Time compared to Lobby Wait Rating correlation (-0.611) is very high. This, logically, makes sense and provides a significant control for the first correlation noted above. Patients' subjective perception of wait time aligns with actual wait time.

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10-minute increase in wait time
=
one point drop in overall rating

Conclusion

Patient satisfaction, as measured by an overall rating question on a patient post visit survey, is directly correlated to the time the patient spends waiting in the lobby. Lobby wait time is more important to patient satisfaction than overall arrival-to-discharge time and the time the patient spends in the exam room. Star ratings show a full point decrease with every additional 10 minutes of lobby wait time beyond an average 42-minute lobby wait time.

Exam Room Time (-0.005) is not correlated to Overall Rating and is therefore not a significant contributor to patient satisfaction. It is consistent that Arrival-to-Discharge Time (-0.196) correlation to Overall Rating is in between Lobby Wait (-0.255) and Exam Room (-0.005) as it is the sum of both times.

The results show significant correlation between patient satisfaction and Lobby Wait Time.

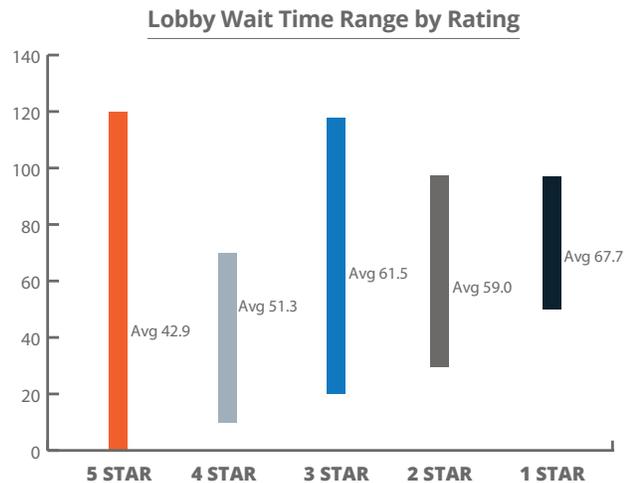
Breakpoints

Further analysis was conducted by grouping the patient Lobby Wait Times by Overall Rating. Computing the average Lobby Wait Time for each group resulted in the following table:

Star Rating	Average Lobby Wait Time
5 star	42.91
4 star	51.34
3 star	61.52
2 star	59.00
1 star	67.70

The results show a distinctive pattern of a roughly 10-minute breakpoint after 42 minutes where the star rating drops. Every 10-minute increase in wait time (after an average 42-minute lobby wait time) results in a one-point drop in star rating in the range from 5-star to 3-star.

Shown here is the range of Lobby Wait Time by Rating. The 10-minute pattern is represented by the starting point of each vertical line.



References

- 2019 Healthcare Reputation Report, Reputation.com, 2019
- Consumer Perspectives on Patient Experience 2018, Jason A. Wolf, Ph.D., CPXP, and President of The Beryl Institute.