

# Does Patient Wait Time Influence Provider Preference?

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## Introduction

- The importance of patient wait-time can hardly be overestimated, and the ability to manage wait times by utilizing advanced-practice providers has become one of the most recent clinical management tools.
- Increasing physician shortages are predicted within the next several years (Peterson SM, 2019). This physician shortage will produce a greater reliance upon Physician Assistants (PA) to fill this gap.
- Advanced Practice Providers working in the ER help reduce waiting time, length of stay, and patients leaving without being seen (Ducharme, Alder, Pelletier, Murray, & Tepper, 2009).
- In 2018, an Ireland study revealed 95% of respondents chose to see a PA within 30 minutes in the ER instead of waiting hours to see a Physician (Joyce, Arnett, Hill, & Hooker, 2018).

## Purpose

- To investigate if patients would be willing to be evaluated by a PA in an outpatient clinical setting when faced with subjectively unacceptable wait times to see a physician

## Methods and Research Design

- The survey utilized was a 9-item questionnaire that was accessible through a link shared on Facebook for a total of twelve weeks. The study collected data from responders and observed how the general population's perception of wait time in the healthcare clinic changes their preference for either a physician or a PA.
- The research team analyzed data through descriptive analysis in the form of a Chi-squared test to measure the correlation and significance between wait time and provider preference. All data was analyzed at the .05 alpha level using SPSS 25 statistical software.
- The independent variable was wait time and the dependent variable was provider preference. The research team used a control question of no wait time and analyzed how the provider preferences changed as the wait time increased from hours to days.
- A power analysis was completed, and for the survey to prove statistical significance, a sample size of 194 participants was required. This pool size included 302 participants of all ages over the age of 18, all genders, all races, and people from all areas of the country.

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## Results

- 66.78% would choose to see a physician, and 33.22% choose to see a PA when there is no wait time.
- Two hours wait for a physician versus thirty minutes to see a PA, 91.39% preferred to be seen by the PA, 8.61% chose to wait to see the physician.
- When the wait time increased to four hours, 96.35% preferred to see a PA within one hour and 3.65% chose to wait and see a physician in 4 hours.
- 74.09% would prefer to see a PA in the primary care setting if the appointment was the same day, compared to 25.91% of the respondents who would prefer to wait and see a physician the following day.
- 84.11% of respondents chose to see a PA in two days, compared to 15.89% preferred to wait one week to see a physician.

Figure 1

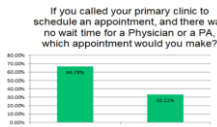


Figure 2



Figure 3

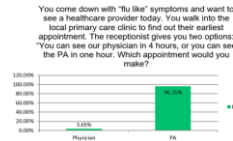


Figure 4

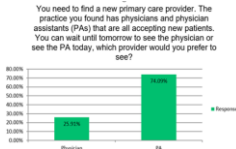
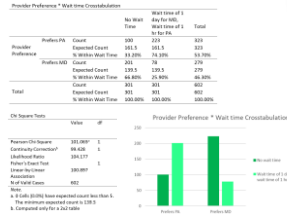


Figure 5



Figure 6



Figures 1-5 show the responses to varying wait times. Figure 6 shows the cross tabulation and Chi square analysis for figure 4.

## Limitations

- The study utilized a sample of convenience through the Facebook platform that used the researchers' friends and family friends as respondents, most of whom presumably knew ahead of time the researcher's association with the PA profession or were or acquainted with PA students enrolled in an accredited PA school.
- The inability to control who shared the survey or if respondents took the same survey from different devices.

## Discussion and Conclusion

- Four of the five collection questions consisted of various scenarios in which the wait time was longer for seeing a physician than seeing a PA (figures 1-5). The fifth collection question consisted of no wait time for either provider and was used as the comparison control variable for our chi-square calculation. Figure 6 represents the crosstabulation where provider preference is compared against wait time, and the chi-square value and p-value are calculated for each of the specific scenarios.
- The difference between the wait times and a comparison group of no wait time was highly significant, with a  $p$ -value of  $<.001$ , which is significantly beyond the usual alpha-level of .05. For chi square analysis, Asymptotic and exact significance were excluded from the table because all values were zero.
- Based upon the chi-square analysis, we were able to reject the null hypothesis, that provider preference does not change based on wait time in a clinical setting. Our research showed that with statistical significance, provider preference is influenced by wait time in the clinical setting.
- The data showed as the waiting times increased for physicians, the preference for PAs subsequently increased. The preference for PAs was surprisingly noted to be as high as 96% when the wait time for physicians was four hours versus one hour for the PA. However, as the appointment delays exceed one day between PA and physician, patients still prefer to see a PA, but with less statistical significance.
- The concept that PAs increase efficiency and decrease wait times was applied to an outpatient clinical setting to understand how prolonged wait times influenced provider preferences. This study supports the notion that patients trust PAs to evaluate and manage their health and are comfortable with seeing a PA when faced with prolonged wait times.
- Based on this study, our research team proposes that PAs are uniquely positioned to reduce wait times, improve patient volume, and increase patient satisfaction with their care.

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