



# Virtual vs In-Person: an Analysis of Encounter Quality

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## Background

- Two of the most challenging aspects of patient care are developing rapport and providing adequate patient education. Failing to accomplish either of these challenges may lead to treatment nonadherence. Studies suggest:
  - Approximately 20% of new prescriptions are never filled, and approximately 50% of those filled are taken incorrectly
  - Nonadherence is associated with higher rates of hospital admissions, suboptimal health outcomes, increased morbidity and mortality, and increased health care costs
- Current literature suggests that factors limiting medication adherence include:
  - Lack of patient engagement in treatment decisions, inappropriate expectations for improvement, and lack of understanding about their disease
- This therapeutic alliance is difficult enough in the setting of in-person care, but the addition of a virtual component in telehealth visits creates new challenges.
- Telehealth rates have jumped in the past year; one study on insurance claims showed telehealth visits increased 2980% between September 2019 and September 2020
- Due to limited pre-COVID telehealth usage, there has been limited research done surrounding its strengths and limitations

## Study Objectives

The aim of this study is to gain a better understanding of the efficacy of virtual visits. The eventual goal would be to create information that will influence providers' use of telehealth visits.

## Project Description

- 20 subjects were interviewed regarding their experience with a recent virtual or in-person visit
- Criteria for patient enrollment included those who: started a non-prn medication between 14 and 20 days prior to interview
- A standardized interview script was used which focused on patient adherence to a new medication during the previous 2 weeks
- Lack of adherence was then categorized into reason
- The interview ended with several questions regarding perceived encounter quality

## Survey Evaluation

### Attitudinal data (quotes during interview)

"These [virtual] visits are so much more convenient than driving to the office."

"I like them more because I feel safer not going into a medical office right now."

"I like them when I can get the computer to work for me."

### Differences between virtual and in-person visits (n = 20)



## Interview questions

Were there any days in the past 2 weeks you did not take your medication?

Were there 3 or more days you did not take your medication?

Which of the following reasons caused you to miss doses?

- difficulty accessing pharmacy
- forgetting
- financial limitations
- side effects
- feeling better
- didn't feel appropriate

Did you feel involved in the treatment decision?

Did you feel comfortable asking questions during your visit?



## Discussion

- The main information acquired from the study was:
  - No significant difference was found between medication compliance/ perceived visit quality in this study, the most common reason for missed medication doses was limited access to the pharmacy
- The absence of significant differences between virtual and in-person visits suggests a strong indication for further research
- Next steps would focus on obtaining more data including:
  - understanding of complex treatment plans, rates of "no shows", pharmacy refill rates, effects of duration of patient-provider relationship, nature of the chief complaint, age of the patient
- Limitations of the study include:
  - small sample size, variations in prescription type, possible hesitation to admit nonadherence, and limited providers involved.

## Conclusions

In the right context, patients are enthusiastic about virtual visits and this new modality of visit offers benefits to both patient and health care systems alike.

## Reference

1. Osterberg L, Blaschke T. Adherence to medication. *N Engl J Med* 2005;353:487-97.
2. Sampaio R, Azevedo LF, Dias CC, Castro Lopes JM. Non-Adherence to Pharmacotherapy: A Prospective Multicentre Study About Its Incidence and Its Causes Perceived by Chronic Pain Patients. *Patient Preference Adherence*. 2020;14:321-332. Published 2020 Feb 19. doi:10.2147/PPA.S232577
3. Gould B, Grey M, Huntington C, et al. Improving Patient Care Outcomes by Teaching Quality Improvement to Medical Students in Community-based Practices. *Acad Med*. 2002;77: 1011-1018.