

INTRODUCTION

The use of synchronous video conferencing (SVC) has been a component of our healthcare system since the 1960s (1). Telemedicine and SVC were initially intended to help rural communities improve access to care. Since its adoption, an abundant amount of research has been conducted studying the patient barriers to the utilization of telemedicine services. Significant patient barriers include lack of access to technology, broadband access challenges, being unfamiliar with communication technology, and fear of adopting a new form of healthcare communication (2,3). Research on patient barriers will help improve telemedicine services; however, there is limited research studying the barriers that healthcare providers experience when using telemedicine services. Both the provider and patient components are equally important and together affect the outcome of telemedicine. Research on the barriers to efficient utilization of telemedicine among providers will be an essential component in the improvement and effectiveness of SVC.

PURPOSE OF STUDY

The purpose of this study is to determine barriers to use of SVC by primary care providers in order to improve the quality of SVC patient encounters and ultimately increase access to care for patients.

METHODS

- We developed a 3-15 item that varied in length based on logic.
- Inclusion criteria:
 - primary care providers (MD, DO, PA-C, APRN)
 - use of SVC within the last 12 months OR use SVC prior to the last 12 months with discontinued use.
- Providers selected from a list of 12 barriers to utilization of SVC.
 - Our survey was modeled after an existing survey (4) published by the American Academy of Physician Assistants (AAPA)
- Selected barriers were then ranked from most to least important.
- Providers who had previously used SVC but had ceased use were additionally asked if they would consider resuming the use of SVC if their chosen barriers were addressed.
- The survey concluded with demographic questions.
- The survey link was electronically distributed to representatives from KAPA and St. Claire Healthcare that was subsequently delivered to providers via each organization's list serves.

RESULTS

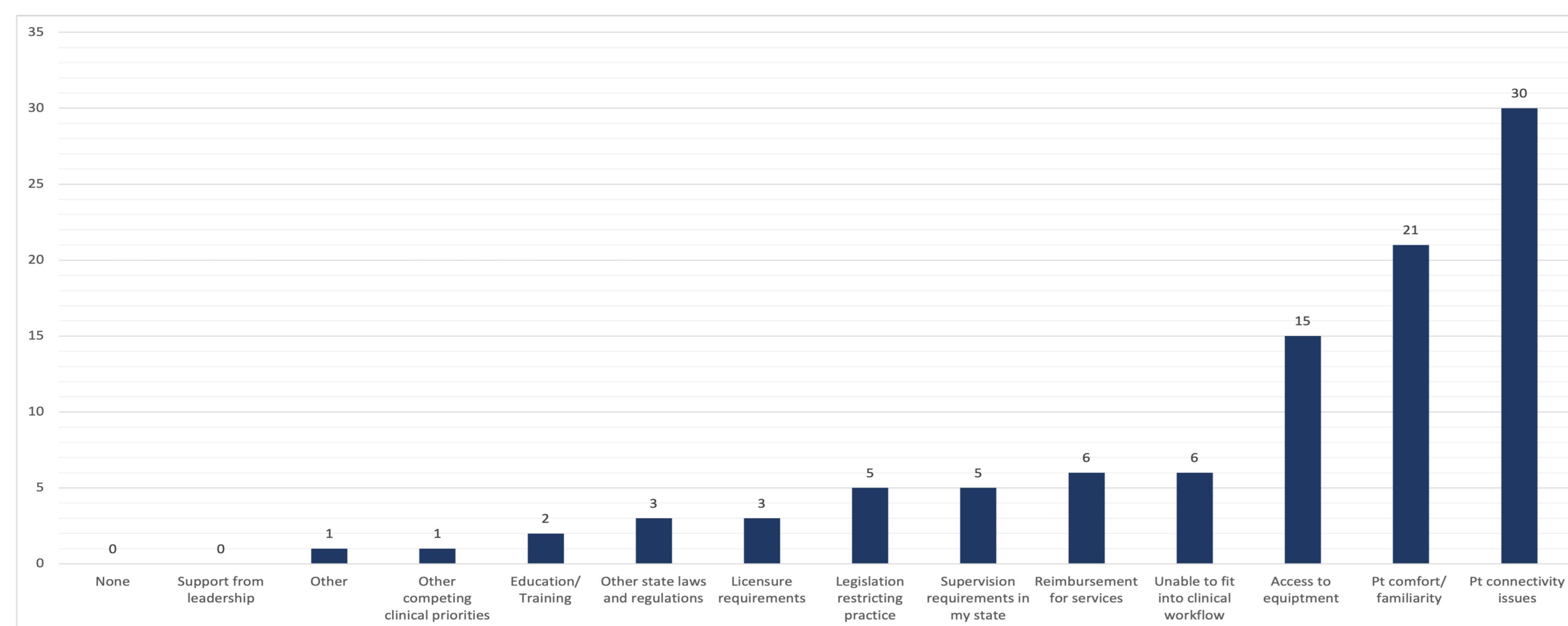


Figure 1.

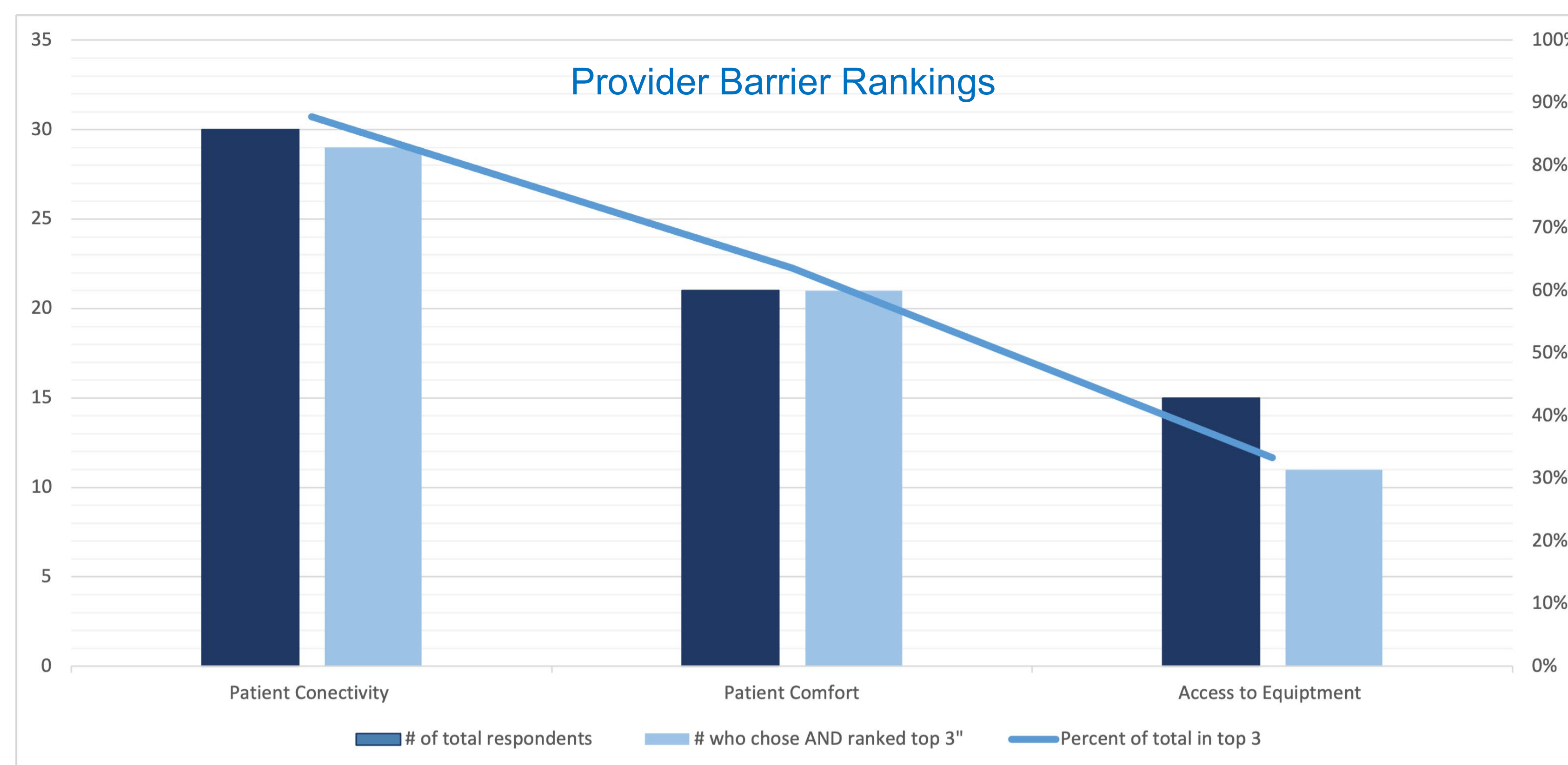


Figure 2.

Demographics

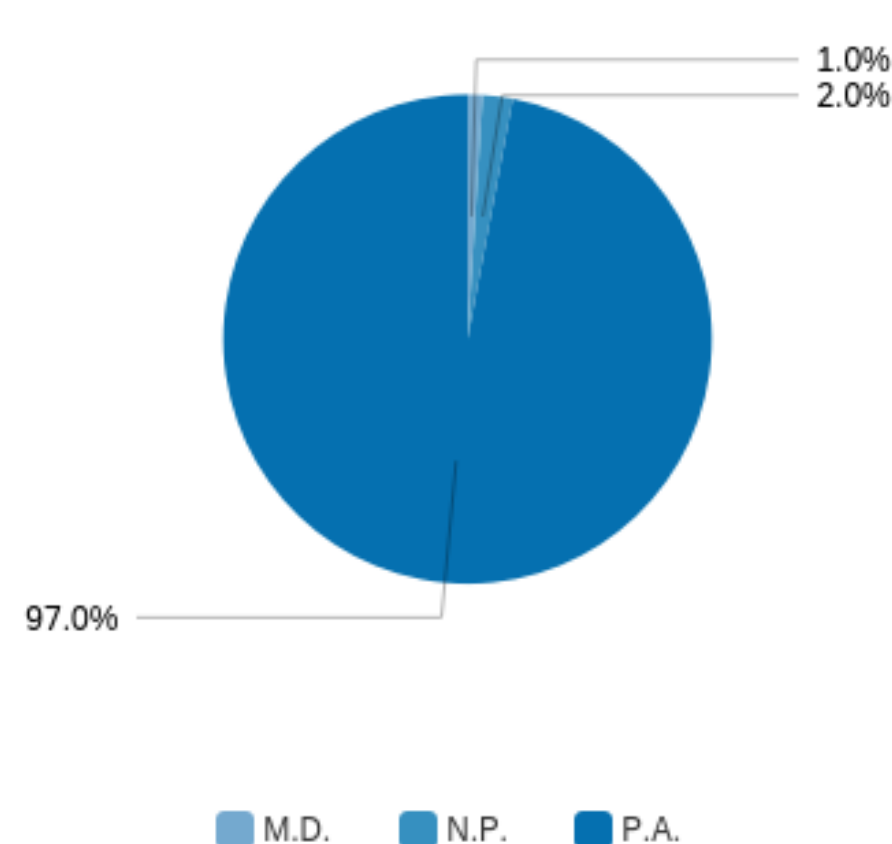


Figure 3a. Type of Provider

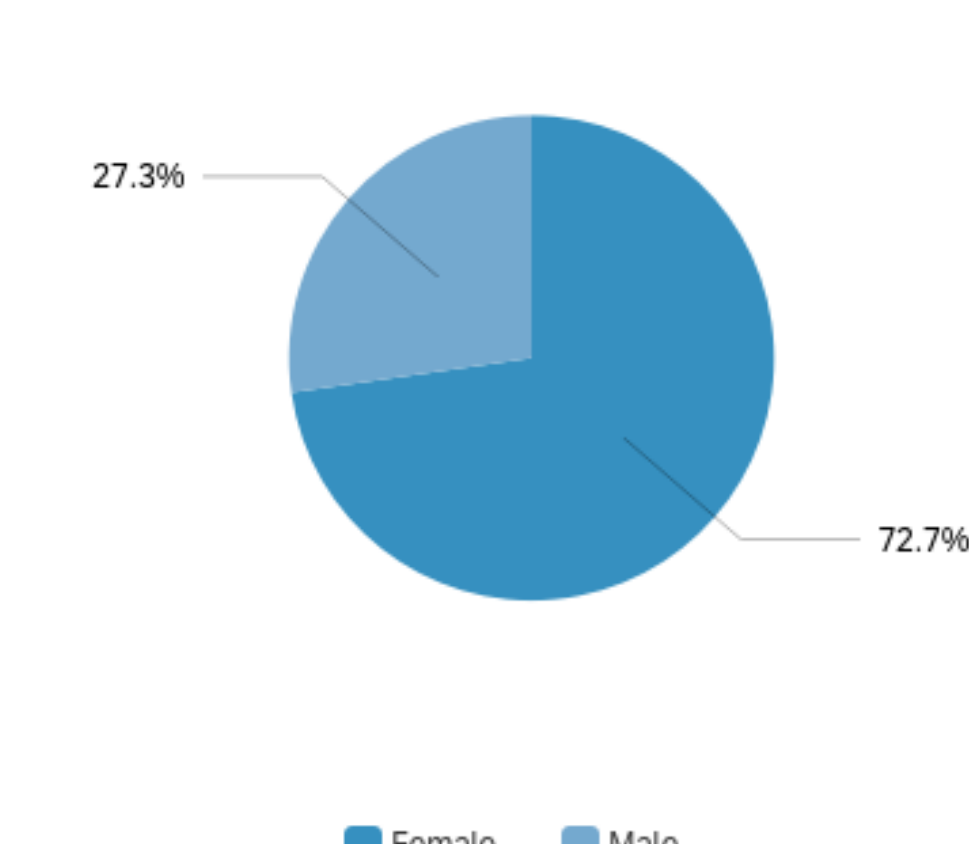


Figure 3b. Gender

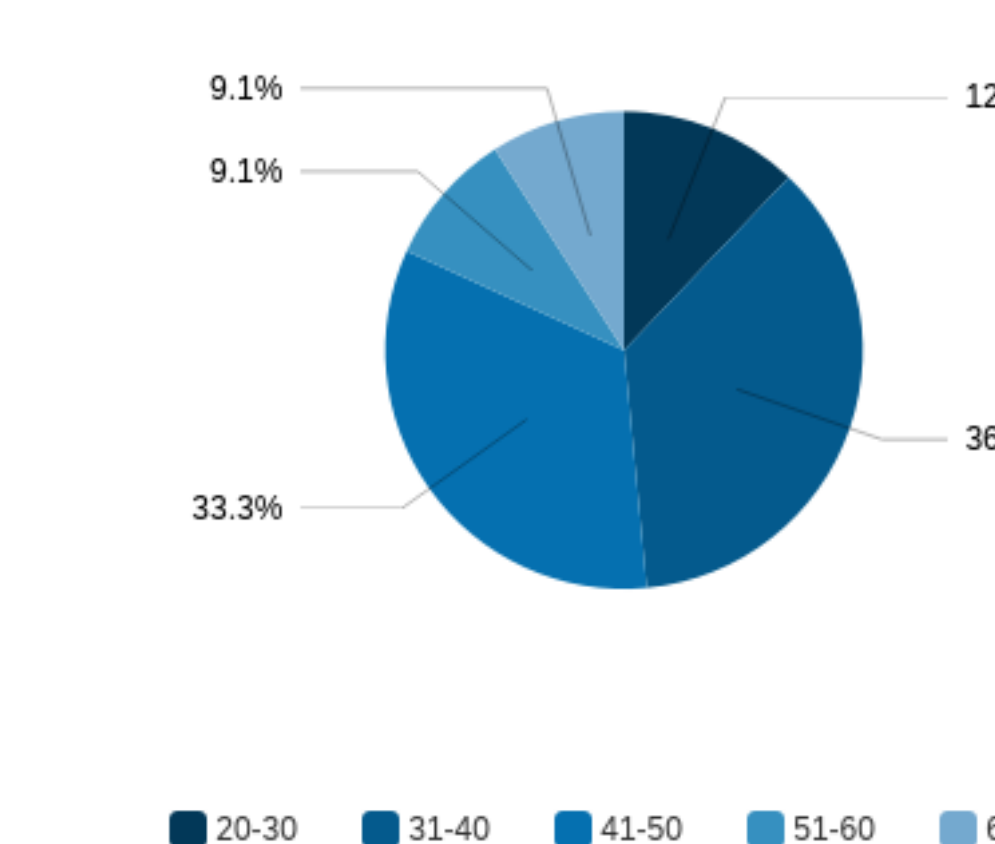


Figure 3c. Age

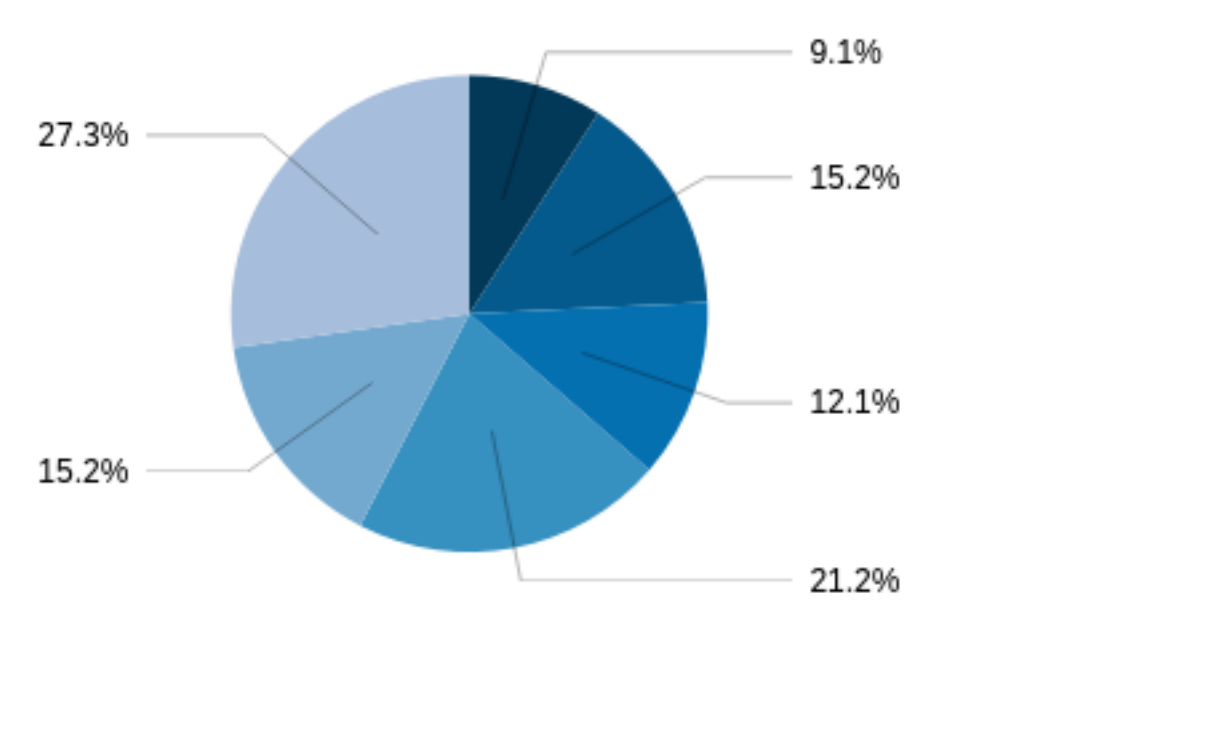


Figure 3d. Length of Practice

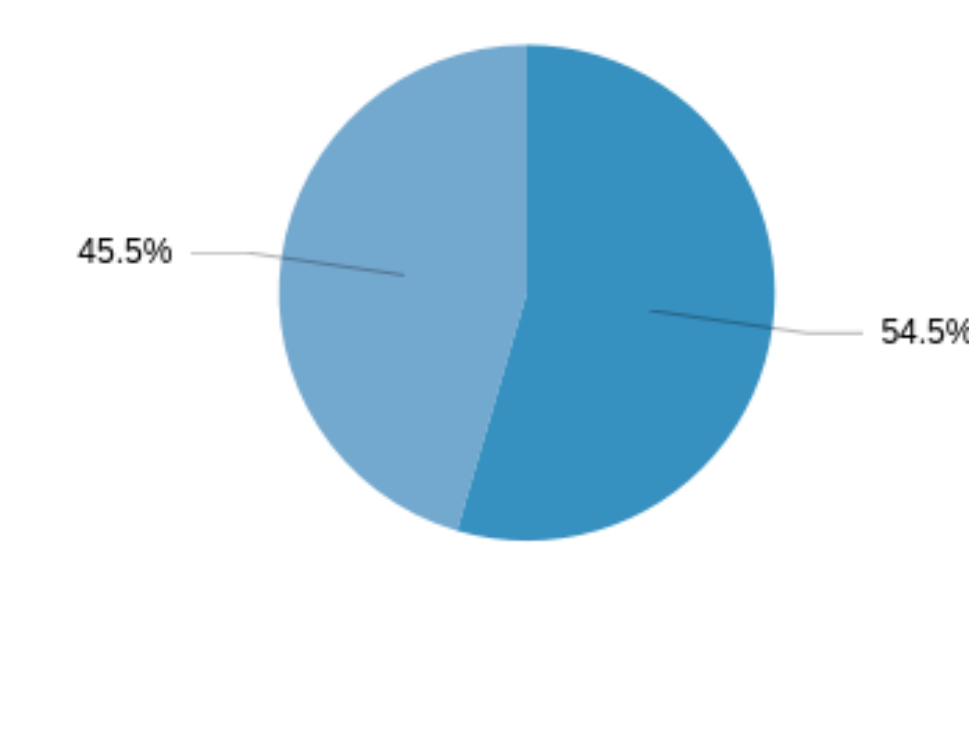


Figure 3e. Rural vs. Non-Rural

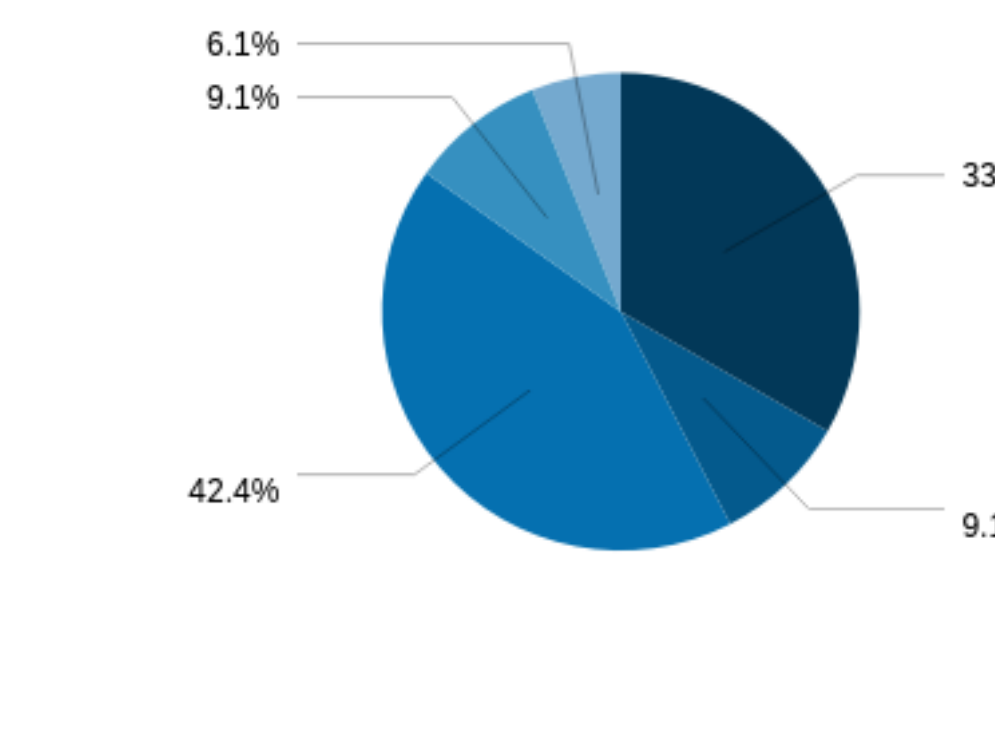


Figure 3f. Insurance Coverage of Patient Population

SUMMARY OF RESULTS

33 participants met our inclusion criteria and were able to select and rank barriers to use of SVC.

- Figure 1: Provider selected perceived barriers to effective use of SVC.
- Figure 2: Providers' top 3 most important perceived barriers to effective use of SVC by rank from most important to least important.
- Figure 3a-3f: Respondents demographic information.
 - We were not able to draw any correlation data from this demographic information.

DISCUSSION

Our research shows an undeniable connection between patient and provider barriers to effective use of SVC. Survey participants almost unanimously chose patient connectivity followed closely by comfort/familiarity. When asked to rank their chosen barriers participants consistently listed patient connectivity and patient comfort/familiarity as their top priorities. This solidifies the notion that to increase the efficacy of SVC, we must address the obstacles faced from the patient perspective. Additionally, the lack of response variability allowed us to draw the conclusion that providers across different primary care practice settings are facing the same problems when utilizing SVC. Our previous research indicates that SVC has the capabilities to expand access to quality healthcare to populations that are historically underserved (2). To achieve this goal, we must focus time and resources into determining how to increase patient connectivity and familiarity in SVC encounters.

CONCLUSION

- The top three barriers according to respondents were:
 - patient connectivity issues (87.8%)
 - patient comfortability (63.6%)
 - access to equipment (33.3%)
- Implications for future study include:
 - What methods can be implemented to overcome the barriers outlined above?
 - Is there correlation between barriers faced across a wider range of providers?
- The limitations within our study include:
 - Limited research sites
 - Short duration of survey availability
 - Lack of respondent diversity (ex. high PA-C response rate)

REFERENCES

- Augustad KM, Lindsetmo RO. Overcoming distance: video-conferencing as a clinical and educational tool among surgeons. *World J Surg.* 2009;33(7):1356-1365. doi:10.1007/s00268-009-0036-0
- Hirko KA, Kerver JM, Ford S, et al. Telehealth in response to the COVID-19 pandemic: Implications for rural health disparities. *J Am Med Inform Assoc.* 2020;27(11):1816-1818. doi:10.1093/jamia/ocaa156
- Rajasekaran K. Access to Telemedicine-Are We Doing All That We Can during the COVID-19 Pandemic?. *Otolaryngol Head Neck Surg.* 2020;163(1):104-106. doi:10.1177/01459820920925049
- American Academy of Physician Assistants. PA Use of Telemedicine in June 2020: Trends and Implications for PAs. - aapa www.aapa.org. https://www.aapa.org/wp-content/uploads/2020/10/June-2020-Telemedicine-DataBrief-Rev.pdf. Published October 10, 2020