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Evaluating Patient Portals for Patients with Visual or Hearing Impairments: Provider Confidence and Communication Challenges

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Introduction

- Digital health tools such as patient portals are critical for improving patient-provider communication.
- They can introduce a barrier to care for patients with visual or hearing impairments.

Objectives

- Investigate providers' experience and confidence in using patient portals to communicate with visual or hearing-impaired patient.
- Identify specific barriers and effective features to improve accessibility and usability of patient portals

Methods

- A cross-sectional survey using REDCap was used to collect quantitative and qualitative data from healthcare providers from UVM Health Network.
- 39 of 252 healthcare providers (15.47%) responded to the survey.
- Data analysis was performed with GraphPad Prism software v10 and paired t-tests used to assess differences in confidence levels.
- Overall patient N= 333,260

Table 1: Proportion of patient portal users with communication impairments

Hearing Loss	Vision Impairment	Blindness
6,572 (2%)	2,811 (0.84%)	465 (0.14%)

Results

Figure 1: Provider distribution of ease-of-use ratings for MyChart

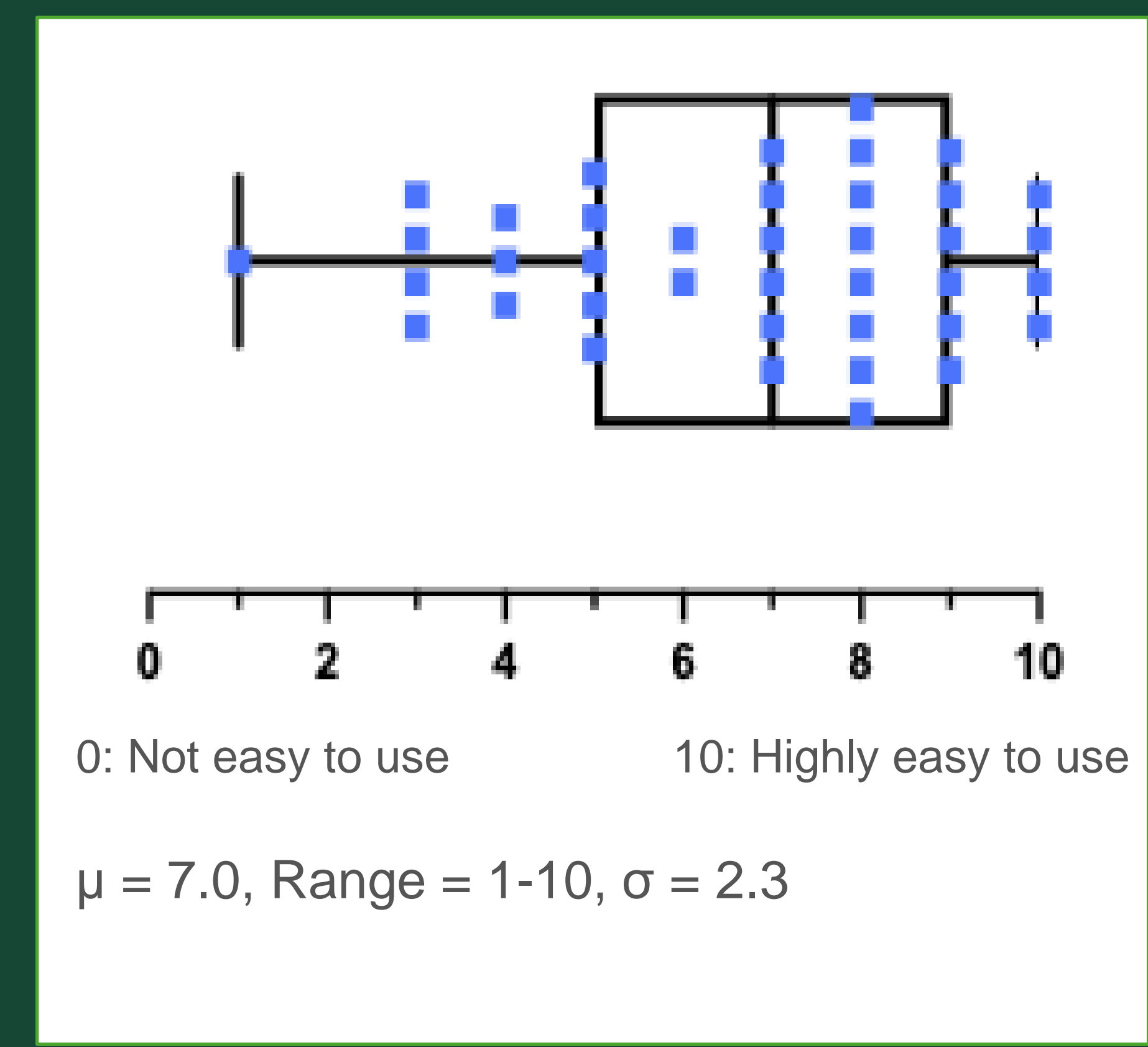


Figure 2: Provider confidence in communication and promoting understanding, by sensory impairments

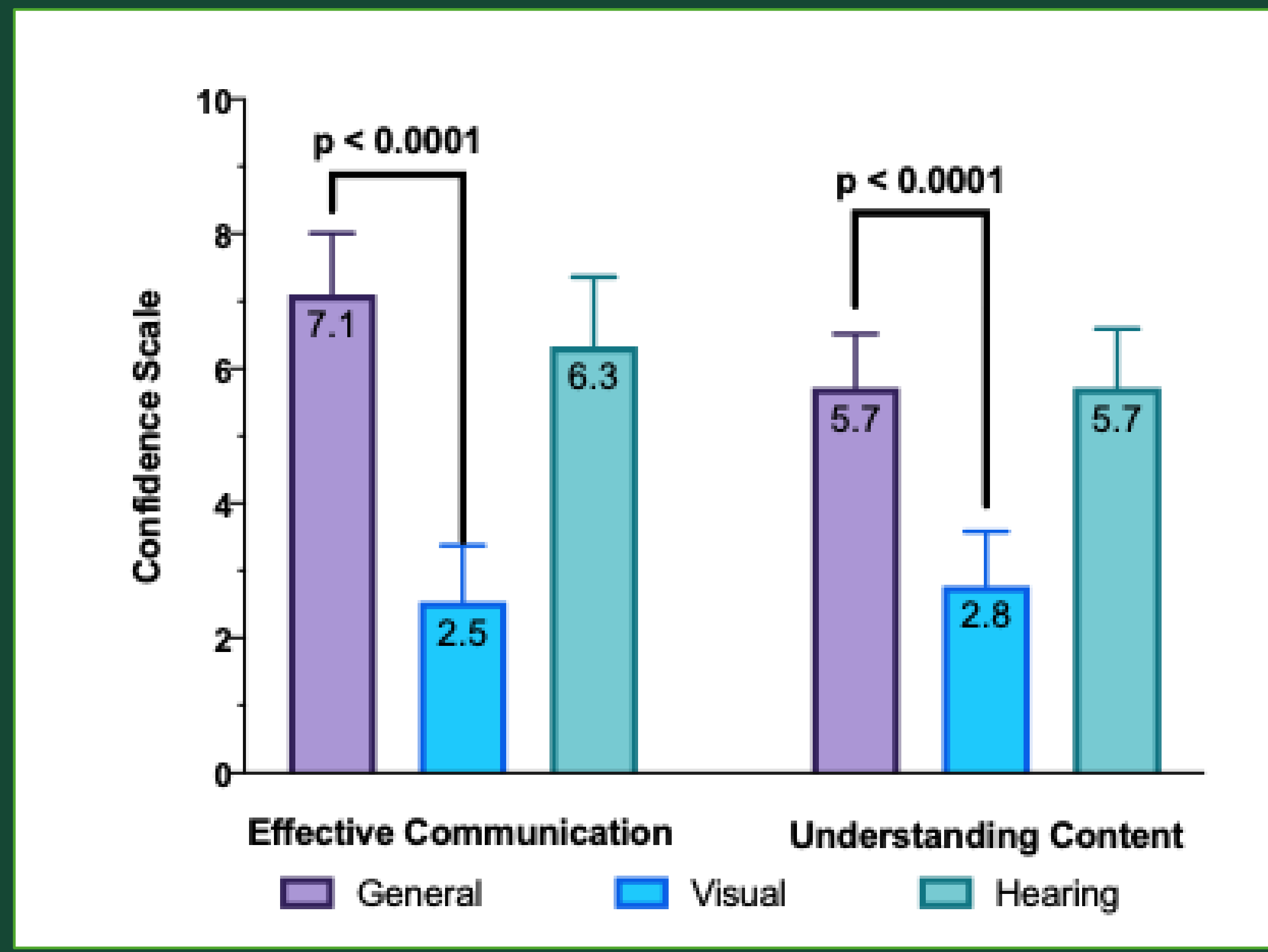
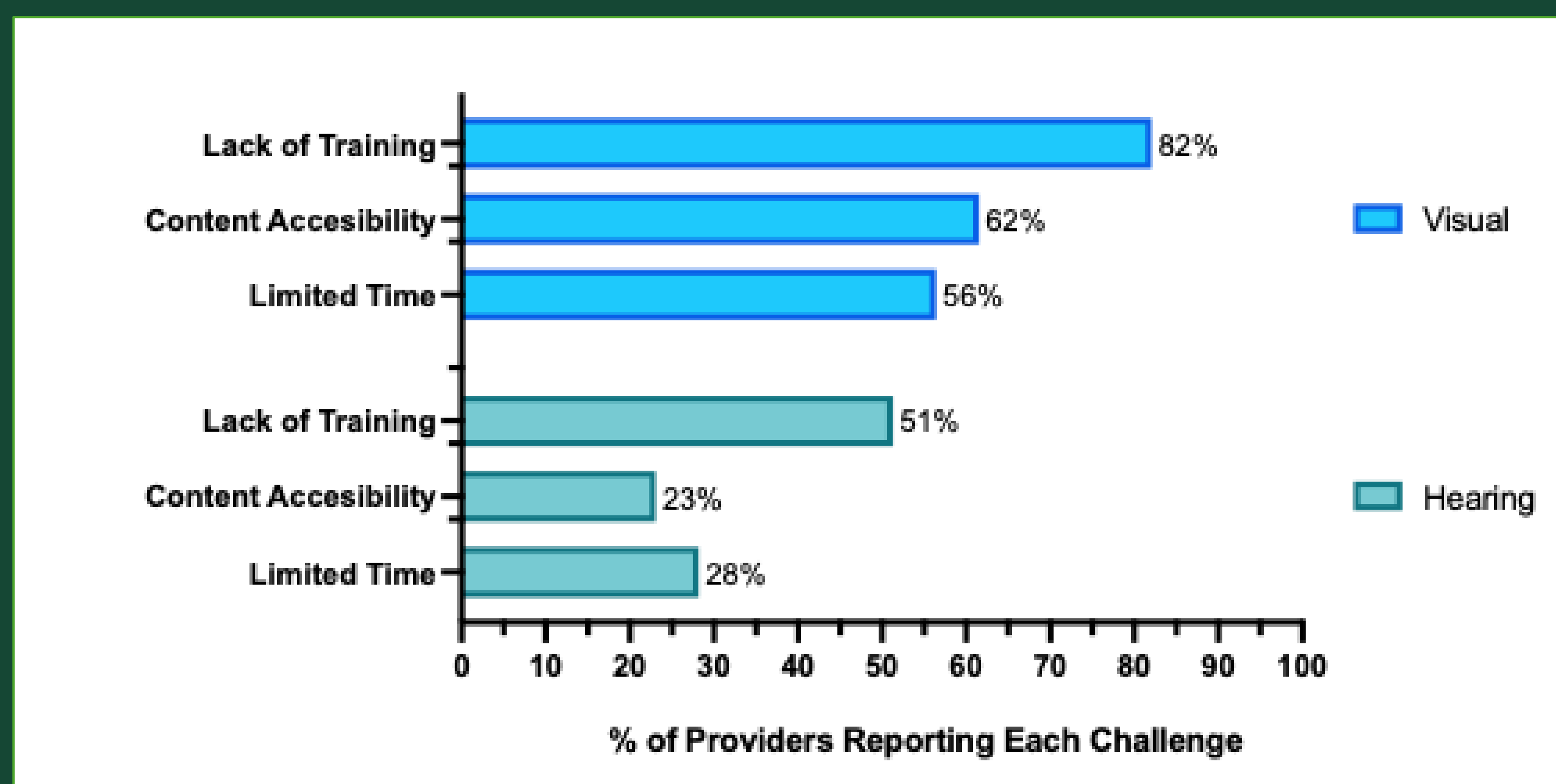


Figure 3: Challenges faced by Providers in using MyChart for patients with communication disabilities



Discussion

- While providers find the current MyChart portal easy to use, their communication and confidence that patients understand portal communication is lower in visually impaired patients.
- Hearing impairment is of lower concern to providers, given that patient portal information is typically read through another screen.
- Training, content accessibility, and time need to be increased to educate providers in effective digital communication with these patients.
- Additional portal features that may increase usage in these groups include larger font size options, text-to speech options, or accessible assistive communication devices.
- Limitations in this study include a low response rate and response bias that may restrict its generalizability across all providers and departments.

Future Directions

- A follow-up study may be needed to collect patient perspectives on specific features to optimize portal communication based on their specific preferences.
- In addition, further assessment of the implementation of these novel tools and features may help physicians increase education of how to use patient portals to strengthen patient health comprehension and communication.

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