



“Turn On the Webcam” An Innovative Approach To Telemedicine Curriculum

Emily Steele, Nhat Nguyen – Foothills AHEC Pathway to Med School Program
Dipal Patel, MD; Onoriode Kesiena, MD ; Jacob Barry, MPH;
Catherine Apaloo, MD; Zahraa Rabeeah, MD



Background

- With the rise of COVID-19, the need for remote healthcare has significantly increased.
- The CDC estimates the use of telemedicine has expanded and constitutes approximately \$30 billion dollars in the healthcare market.
- Unique skills are required for telemedicine and telehealth practices, yet there is no well-established telehealth training in U.S. residency programs.

Purpose

- The aim of this study was to evaluate the use and skills of telemedicine among resident physicians, and to assess the benefits of a telemedicine curriculum on these skills.

Methodology

Phase 1: Pre-Intervention Assessment

- Cross sectional study with a questionnaire
- Inclusion criteria: All residents in PARMC
- Exclusion criteria: Non-PARMC residents and three residents who did not attend the training
- Addressed 1) Number of performed tele visits, 2) prior telehealth training, 3) confidence in providing telehealth care, and 4) desired telemedicine skills

Phase 2: Curriculum Implementation

- Educational sessions were held consisting of a one-hour didactic session and three one-hour workshops.
- Curriculum addressed: The use of webcams, physical exam, and webside manner skills.

Table 1. Simulated Patients Encounters

Geriatric Care Patients	Sick Visit Patients	Chronic Disease Management Patients
80-year-old male with hearing difficulty establishing care for hypertension management	32-year-old female with burning urine	60-year-old male following up for diabetes management
	54-year-old male with shortness of breath	
	50-year-old female with abdominal pain	
	23-year-old male with sore throat	

Phase 3: Post-Intervention Assessment

- Questionnaire addressed 1) willingness to include telemedicine in future practice, 2) differences in communication skills needed, 3) confidence in webside manner and technical skill, and 4) clinical skills gained from training.

Results

Table 2. Results from pre-curriculum questionnaire

Survey Question/Responses	Percentage
Number of completed televisits	
1-5 sessions	51.6%
6-20 sessions	32.9%
21 or more sessions	15.6%
Participation in prior telemedicine training	
Yes	15.5%
No	84.5%
Residents' perception on the effectiveness of telemedicine	
Agree	70%
Undecided	20%
Disagree	9%

Skills Gained After Telemedicine Training

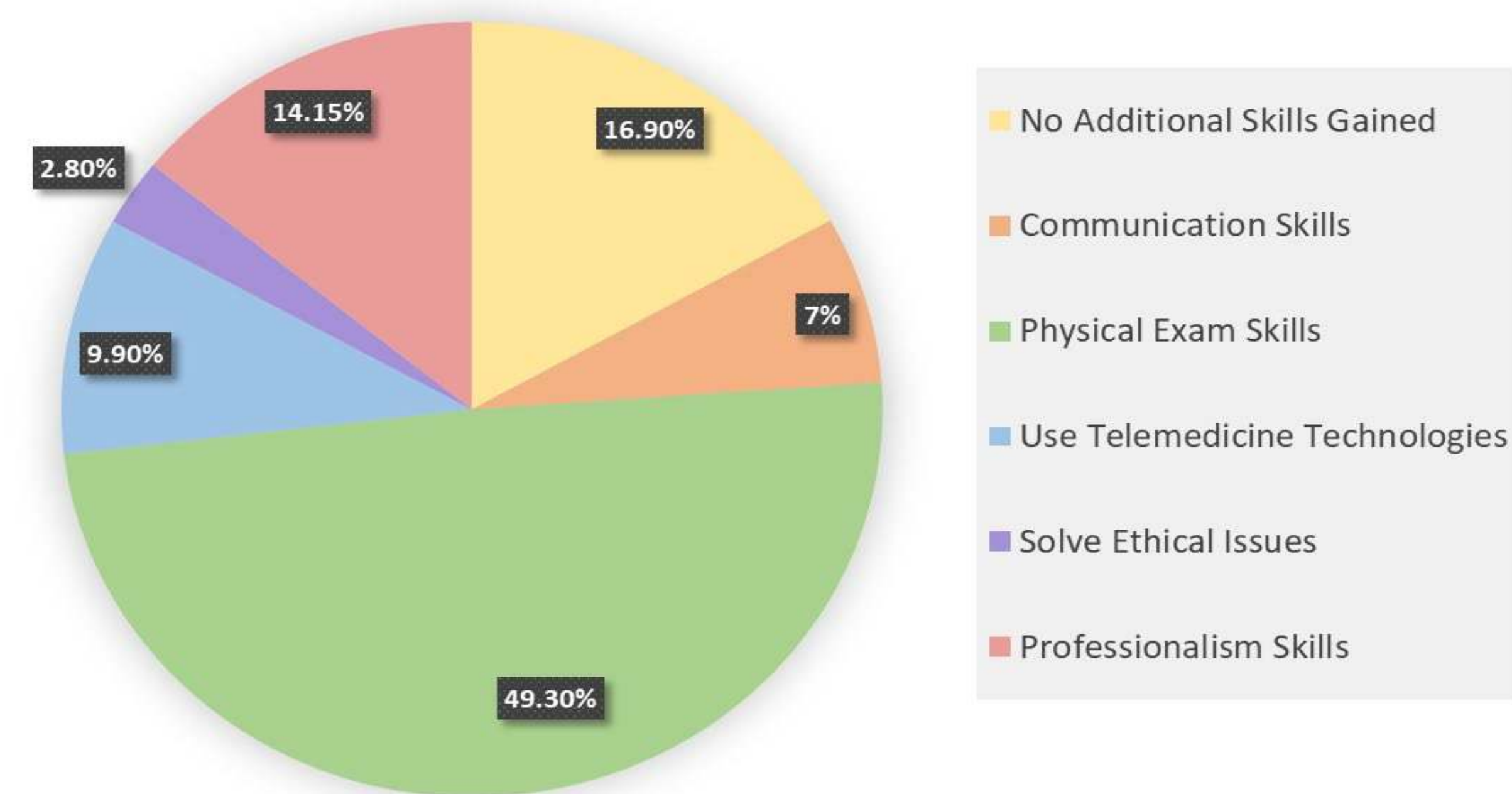


Figure 1. Post-intervention questionnaire answers of skills gained during resident telemedicine training

Pre/Post Telemedicine Curriculum Questionnaire Responses

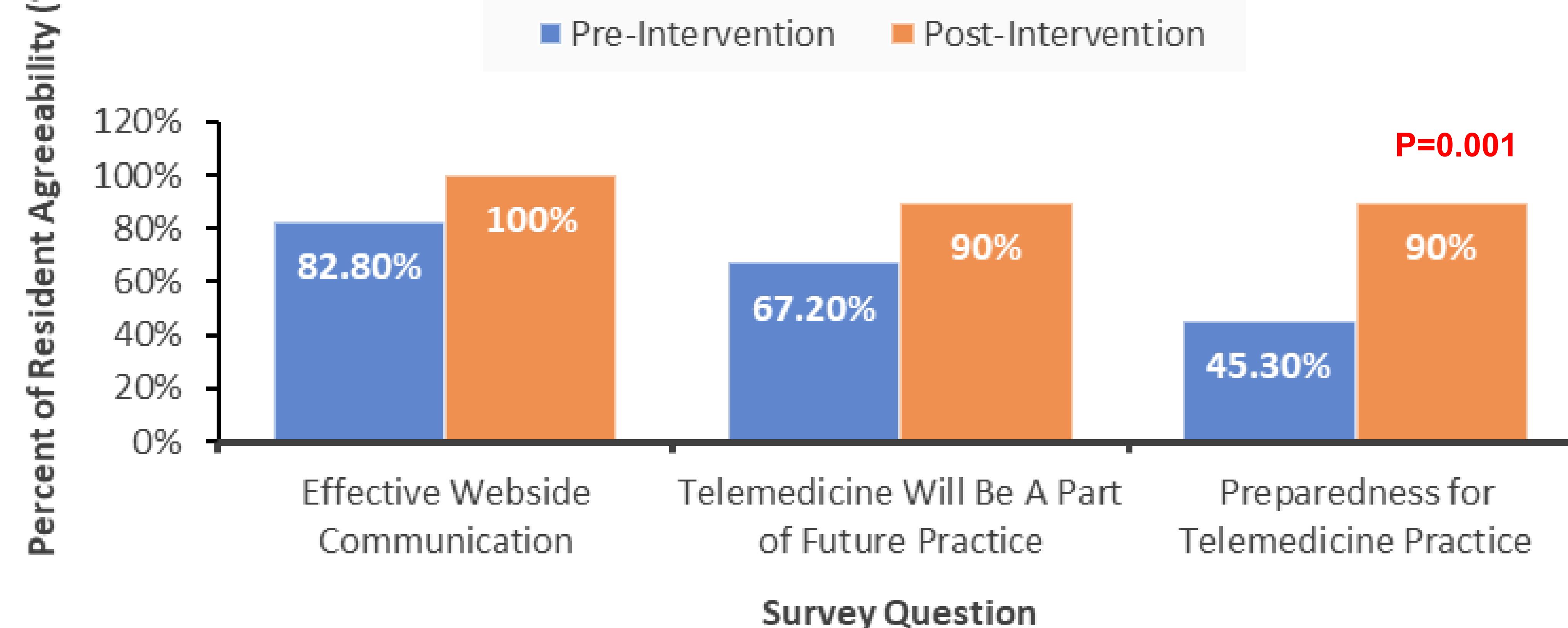


Figure 2. Responses from questionnaires given before and after implementation of telemedicine training.

Discussion

- Pre-Intervention assessment showed all participants have performed one or more telemedicine visits, even though 84% never received prior training.
- Following curriculum implementation, resident preparedness for telemedicine in practice increased from 45% to 90%.
- Likewise, resident effectiveness of using webside communication increased by 18% and plans to use telemedicine in their future practice increased by 23%.
- The top three skills noticeably improved by residents proceeding the curriculum were: physical exam skills, professionalism skills, and the ability to use telemedicine technologies.

Conclusion

- The application of telemedicine curriculum and training showed an increase in overall resident confidence and preparedness in using tele visits.
- Future research should evaluate tele visits pre-and post-intervention. Patient satisfaction helps measure the effectiveness of educational intervention and patient attitudes toward telemedicine.

References

- The QR code below will lead to a document with references utilized in this research.

