

Patient Interest In Video Integration Into After-hours Triage Calls

STFM Annual Spring Conference 2019
Resident Research Session

Janani Sankaran, M.D.

Sherin Menachery, B.S.

Robert D. Bradshaw, M.D., M.P.H.



Background

- Tele-triage or after hour phone calls:
 - Help patients decide whether to go to the Emergency Department (ED) or schedule an appointment with their Primary Care Provider (PCP) the next day based on the physician's judgment
- Current after hours triage:
 - Mostly phone-based²
 - Can allow for prescription without seeing patient's condition in-person³
 - Prior study showed decrease in the number of same-day visits to the PCP with tele-triage⁴

Current status of ED use

- Overcrowding in ED increasing globally¹
 - Increased mortality
 - Delays in the initiation of critical care
 - Decreased patient safety and inefficient in-patient flow
 - Typically increased total costs compared to outpatient visits

- Tele triage: gives patients another option before ED
→ help alleviate ED overcrowding and reduce costs

Limitations of Tele-Triage

- Lack of visual cues may lead to uncertainty in evaluating the patient's condition⁵

Purpose Of The Study

- To understand patient attitudes and access to video calling in order to potentially enhance efficiency of after-hours triage calls and reduce ED visits

Literature

- A study in the UK surveyed patients on their technological expertise and willingness to communicate with doctors through phone or video⁸
- Very few studies conducted in the U.S. regarding public receptiveness towards video in tele-triage

Objectives

- We aimed to describe:
 - Attitudes of patients towards video triage
 - Patient access to video-calling devices
 - Proficiency with video-calling devices
 - Perceived advantages or disadvantages of video communication

Methods

- We surveyed patients 18- 89 at EVMS Ghent Family Medicine Clinic in Norfolk, VA and gathered data on:
 - Age, ethnicity, education, and annual household income
 - Availability and access to video-calling devices
 - Proficiency with video-calling devices
 - Perceived advantages and disadvantages of video calling
 - Data analysis was completed with JMP version 11.2.1

This survey is to understand the interest and access patients may have to video consultation on common medical issues with their physician (or primary care provider) by smartphone, computer or other means.

Information gathered by this survey will be anonymous and not traceable to you as an individual. The questions mainly deal with your interest and access to means available to be able to discuss a medical concern with your primary care provider without making an actual office visit. The benefit of this survey will be improving the understanding of our clinic and practice in potentially being able to offer such a service in the future. There should be little to no risk to you as an individual from completing this survey other than related to the information you provide. The information provided in any reports will be analyzed and summarized by group and will therefore be unlikely to be associated with any person. Any comments provided will be described mostly by themes and edited for any personal information if given and relevant to the evaluation. Your consent is voluntary and you may withdraw from the survey at any time.

- I agree to participate in the survey
- I do not want to participate in this survey.

Participant signature

What is your gender?

- Male
- Female

What is your age to the nearest year?

Please select each type of device below that you OWN that have allow video communication (Example- FaceTime, Skype, Whatsapp etc.)

- | | |
|---|--------------------------------------|
| <input type="checkbox"/> Desktop computer | <input type="checkbox"/> Smart phone |
| <input type="checkbox"/> Laptop | <input type="checkbox"/> Smart watch |
| <input type="checkbox"/> Tablet | <input type="checkbox"/> Other |

Results



- Demographics: 298 participants
 - 71.6% females; mean age of all respondents 47.9 years
 - 63.7% were African American and 30.3% Caucasian
 - 90.3% of patients had grade 12 or higher education
 - 56.7% had an annual household income less than \$50,000
 - 84% with income < \$25,000 had a smartphone
 - No significant difference between ownership of smartphone in those with income less than \$25,000 vs greater ($X^2 = 2.299$, $p = 0.130$, relative risk = 1.603)
 - Contrasts with prior studies that showed a socioeconomic gap in access to technology⁸

□ Accessibility

- 87% overall had access to a smart phone and 96 % to any video capable device including desktops, laptops, or a tablet computer

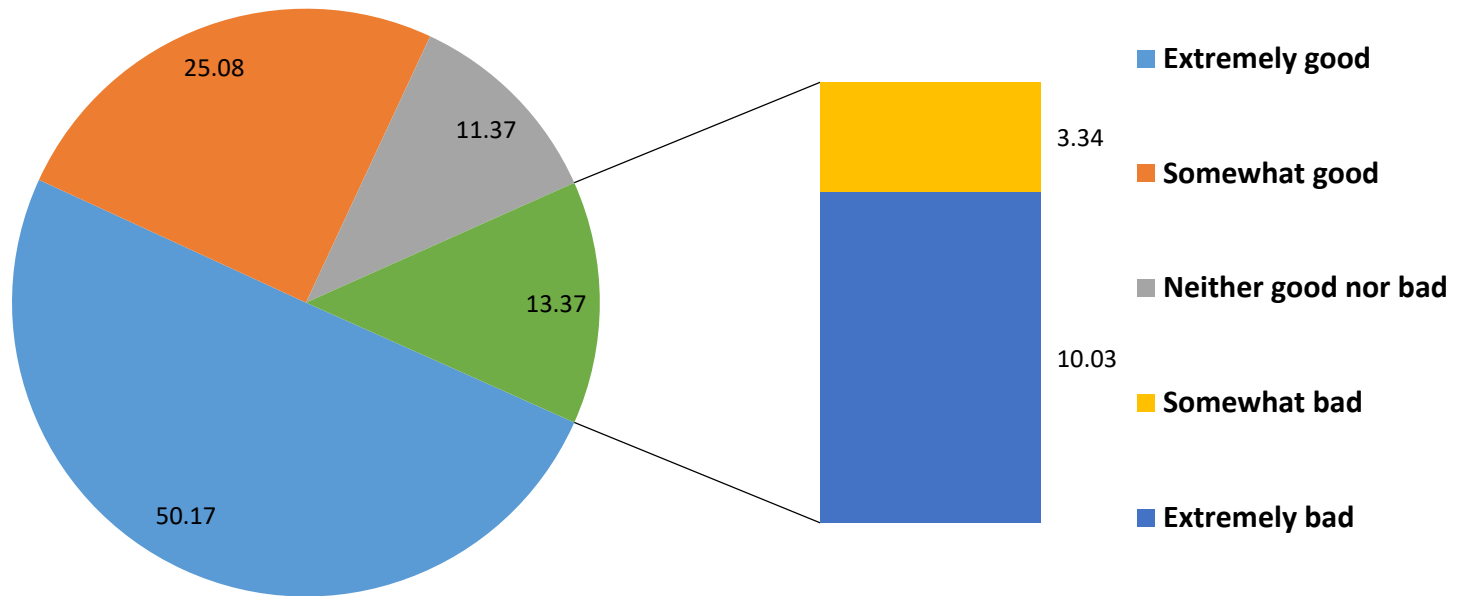
□ Technology Use and Enjoyment

- 54.4% spoke with doctors or nurses over telephone to discuss medical problems, predominantly for prescription-related questions (24.3%), minor illnesses (22.2%), general medical advice (18.3%)
- 71% of patients surveyed enjoy video communication
 - People with higher education tended to enjoy video more (Cochran Armitage Trend Test: $Z = 2.780$, $p < 0.005$)



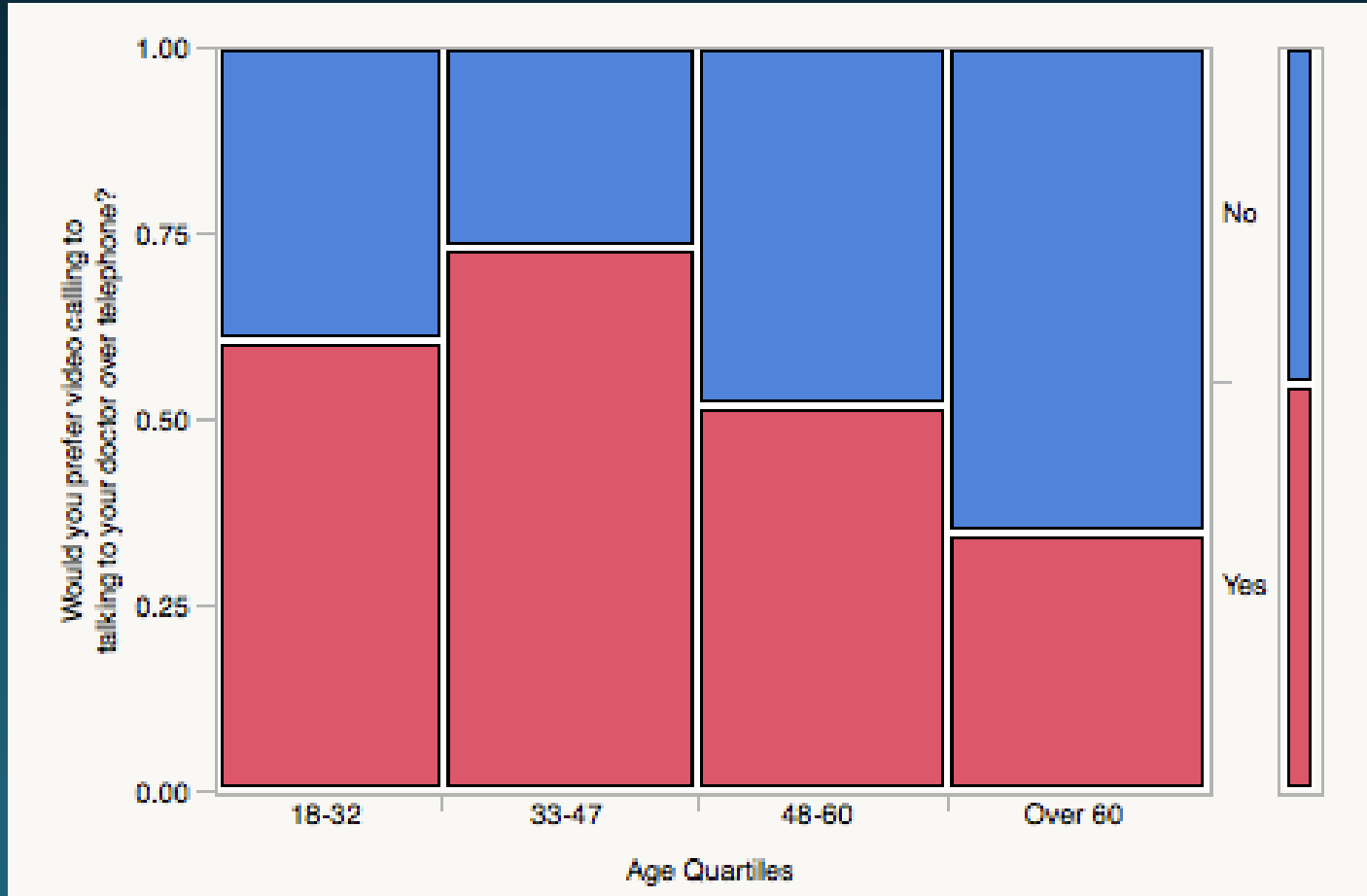
Technology Proficiency

Proficiency at using the devices that allow video communication (%)



Device proficiency was inversely related to age, with greatest proficiency reported in the 18-32 year age group ($X^2 = 71.180, p < 0.0001$)

Video Calling Preference by Age Quartiles





❑ Other Preferences for Video Calling

- ❑ 55.4% preferred video calling over talking to their health care provider by telephone
- ❑ Women tended to prefer video calling with their doctor over discussing via phone compared to men ($X^2 = 5.089$, $p = 0.024$)
- ❑ Patients who had prior experience with video communication were over 3x more likely to prefer video calling with doctors vs. by telephone ($X^2 = 35.700$, $p < 0.0001$, relative risk = 3.459)
- ❑ Patients who called their doctor 5 or more times annually preferred video communication significantly more than patients who called less than 5 times annually ($p < 0.0001$)

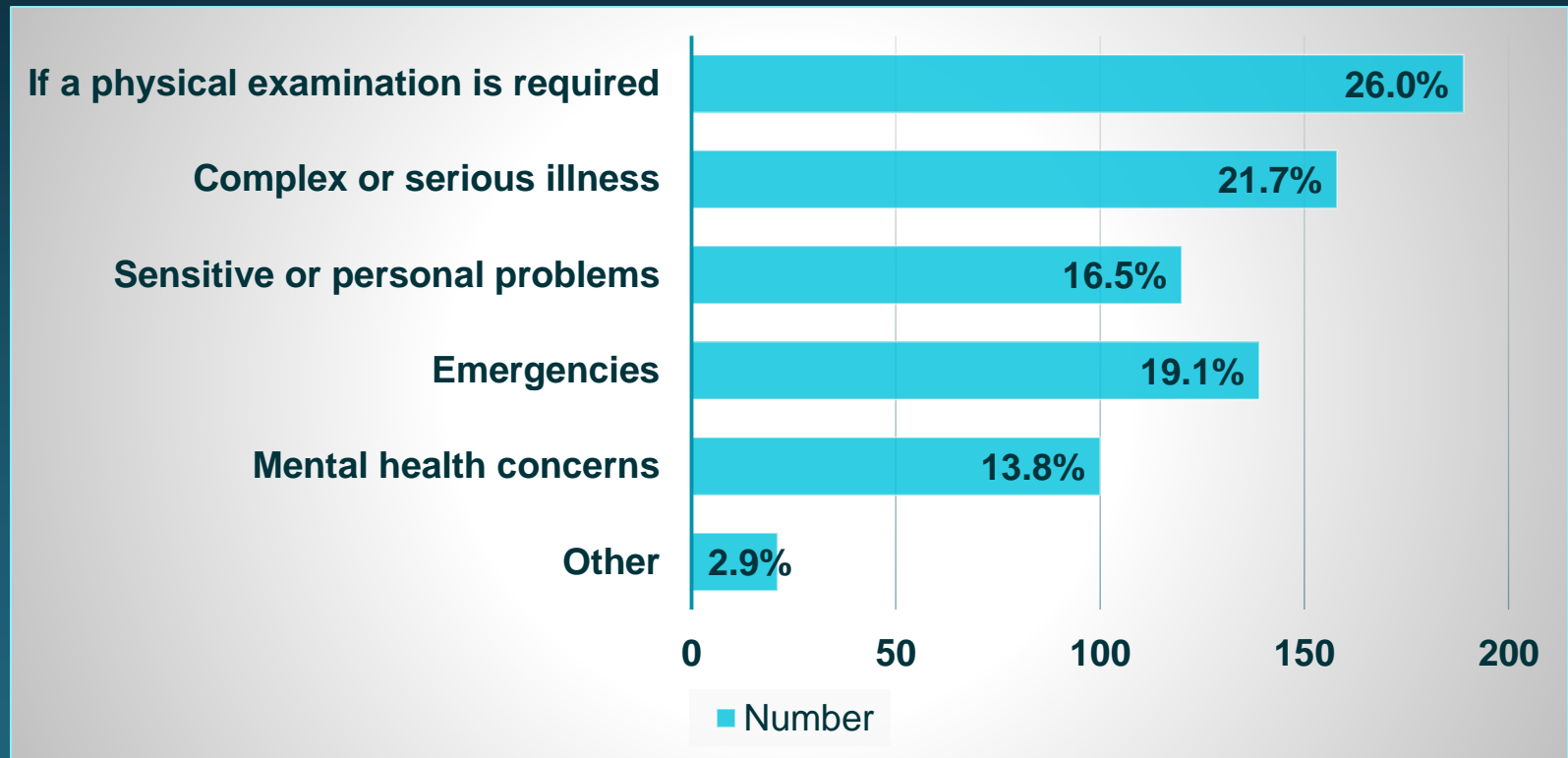
Patient Perceived Advantages of Video Calling

Would save time in general	105	(16.9%)
Would save travel time	110	(17.7%)
Would save travel cost	90	(14.5%)
Could stay home when feeling ill	113	(18.2%)
Faster contact with primary care provider than waiting for an appointment	123	(19.8%)
Wouldn't need to take off from work	69	(11.1%)
Other	10	(1.6%)

Concerns About Video Calling

I prefer face to face interaction with primary care provider	147	(37.1%)
I don't know how to use the devices or technology	33	(8.3%)
Video calling is less personal	44	(11.1%)
Video calling is not private enough	39	(9.8%)
Video calling may not allow proper diagnosis	81	(20.4%)
Other	52	(13.1)

Conditions Considered Unsuitable for Video Communication



Strengths

- High response rate to the survey
- Population demographics
- Updated understanding on accessibility to video calling

Limitations

- Convenience sample
- Lack of clarity about “tele-triage” amongst patients completing the survey by themselves

Conclusions

- ❑ Majority of patients preferred video calling to talking to their healthcare provider over telephone.
- ❑ Patients are economically and technologically capable of video calling, even in lower income groups
- ❑ Younger age patients are more proficient and open to this means of communication about their health
- ❑ An interventional study would be useful to see what impact video triage might have on ED utilization

References

1. Campbell SM, Roland MO. Why do people consult the doctor? : J Fam Pract; 1996. p. 75-83.
2. Free C, Phillips G, Watson L, Galli L, Felix L, Edwards P, et al. The effectiveness of mobile-health technologies to improve health care service delivery processes: a systematic review and meta-analysis. PLoS Med. 2013;10(1):e1001363.
3. Gray DP, Wilkie P. Patient perspectives on telephone triage in general practice. Lancet. 2015;385(9969):687-8.
4. Daniel H, Sulmasy LS. Policy recommendations to guide the use of telemedicine in primary care settings: an American College of Physicians position paper. Ann Intern Med. 2015;163(10):787-9.
5. Hildebrandt DE, Westfall JM, Smith PC. After-hours telephone triage affects patient safety. J Fam Pract. 2003;52(3):222-7.

Thank you
Any Questions?

