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The Impact of Epic Secure Chat on Clinicians and Patient Care

Jai Narain

The University of Vermont, jai.narain@med.uvm.edu

Rachel McEntee MD

University of Vermont Health Network, rachel.mcentee@uvmhealth.org

Yao Li MD

University of Vermont Health Network, Yao.li@uvmhealth.org

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BACKGROUND

- In 2022, the University of Vermont Health Network introduced Epic Secure Chat, a secure messaging system within the EMR, as a primary method for non-urgent clinical communication.
- Previous studies found that the implementation of a secure chat messaging system show improved satisfaction when added to a direct paging system¹ and increased workflow efficiency.²
- In a review of Epic data from UVM July 2023 to July 2024 there was a total of **10,021,732** messages collected.
- 77,956** conversations were initiated during the 2-week period stating 7/6/24.

Percent of Secure Chat Conversations Initiated

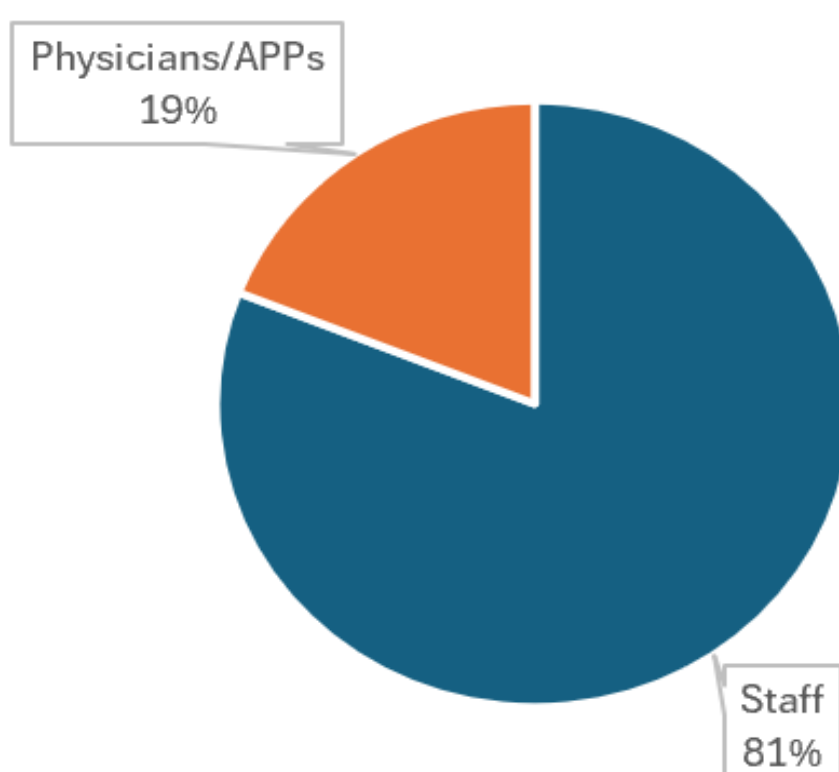


Figure 1. Staff initiate 81% of all messages.

Percentage of Initial Secure Chat Messages as Target

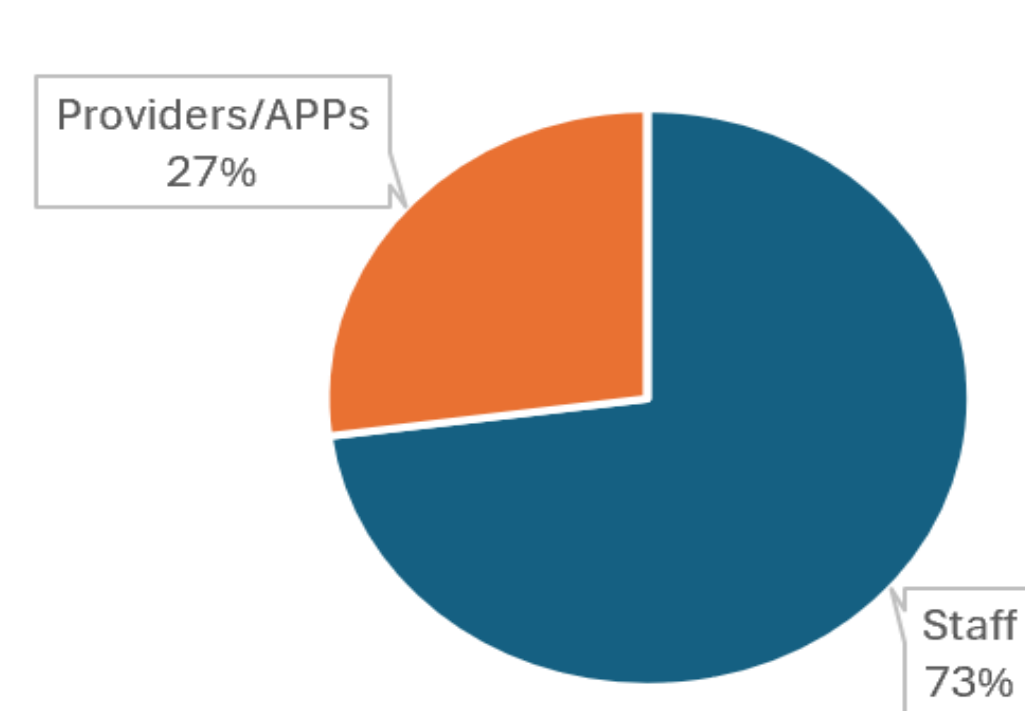


Figure 2. 27% of initial messages are directed at Physicians and APPs

OBJECTIVE

Evaluate University of Vermont Medical Center (UVMHC) healthcare worker perceptions about the impact of Epic Secure Chat on workflows and patient care.

METHODS

- Providers in Family Medicine and Internal Medicine and staff on three med/surg floors were asked to evaluate the Epic Secure Chat messaging system via secure electronic survey (RedCap).
- The survey was 19 questions that investigated both the user experience and its perceived benefit to patient care. It also included open ended questions to gauge impressions.
- Roles of clinicians were broken down to attending physicians, APP and residents. Staff included nurses and medical assistants.

RESULTS

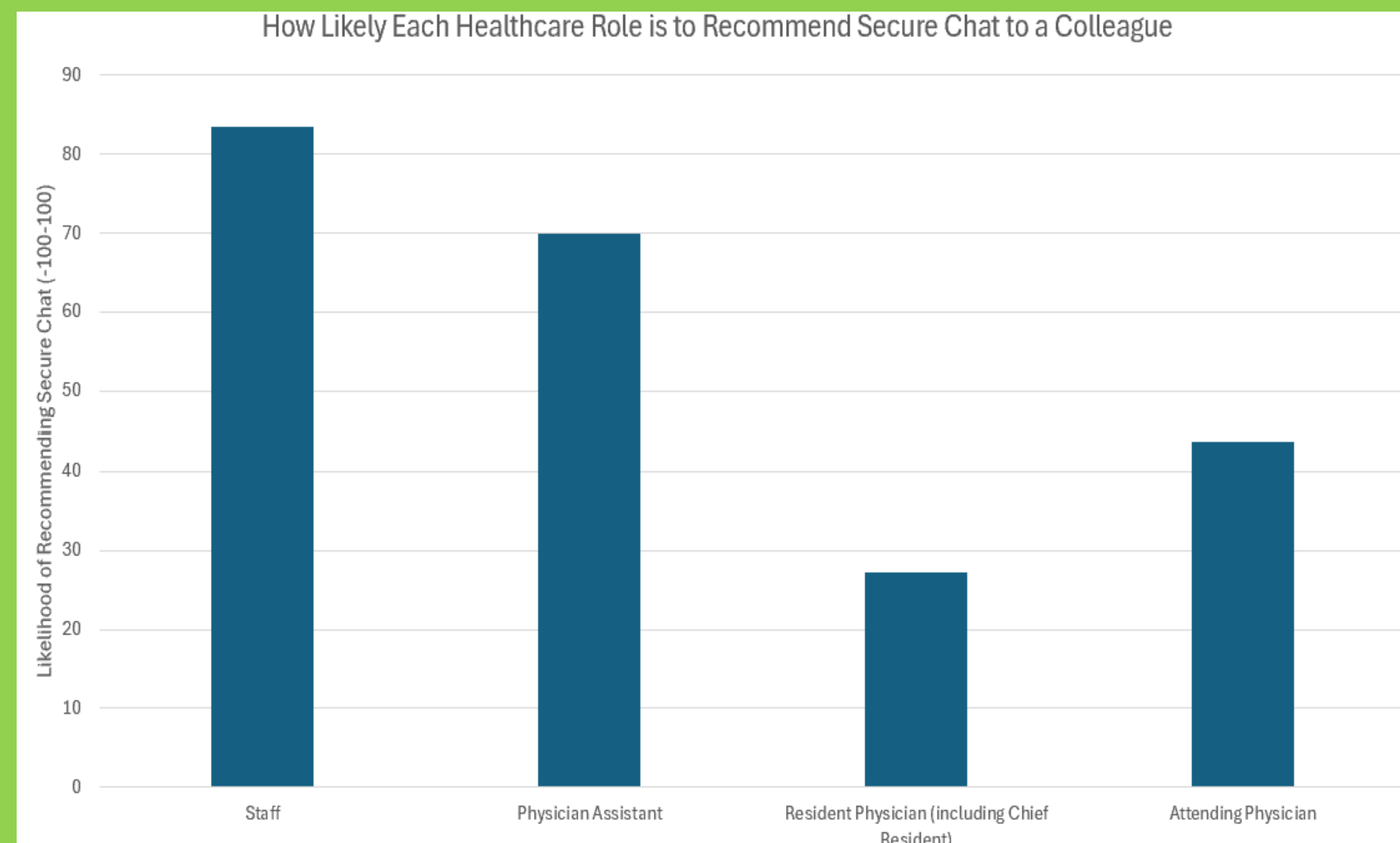


Figure 3. Net promoter scores showed that staff (nurses and medical assistants) are the most likely to recommend. Residents are the least likely to recommend.

Staff n = 39, Physician Assistant n = 1, Resident Physician n = 11, Attending Physician n = 12

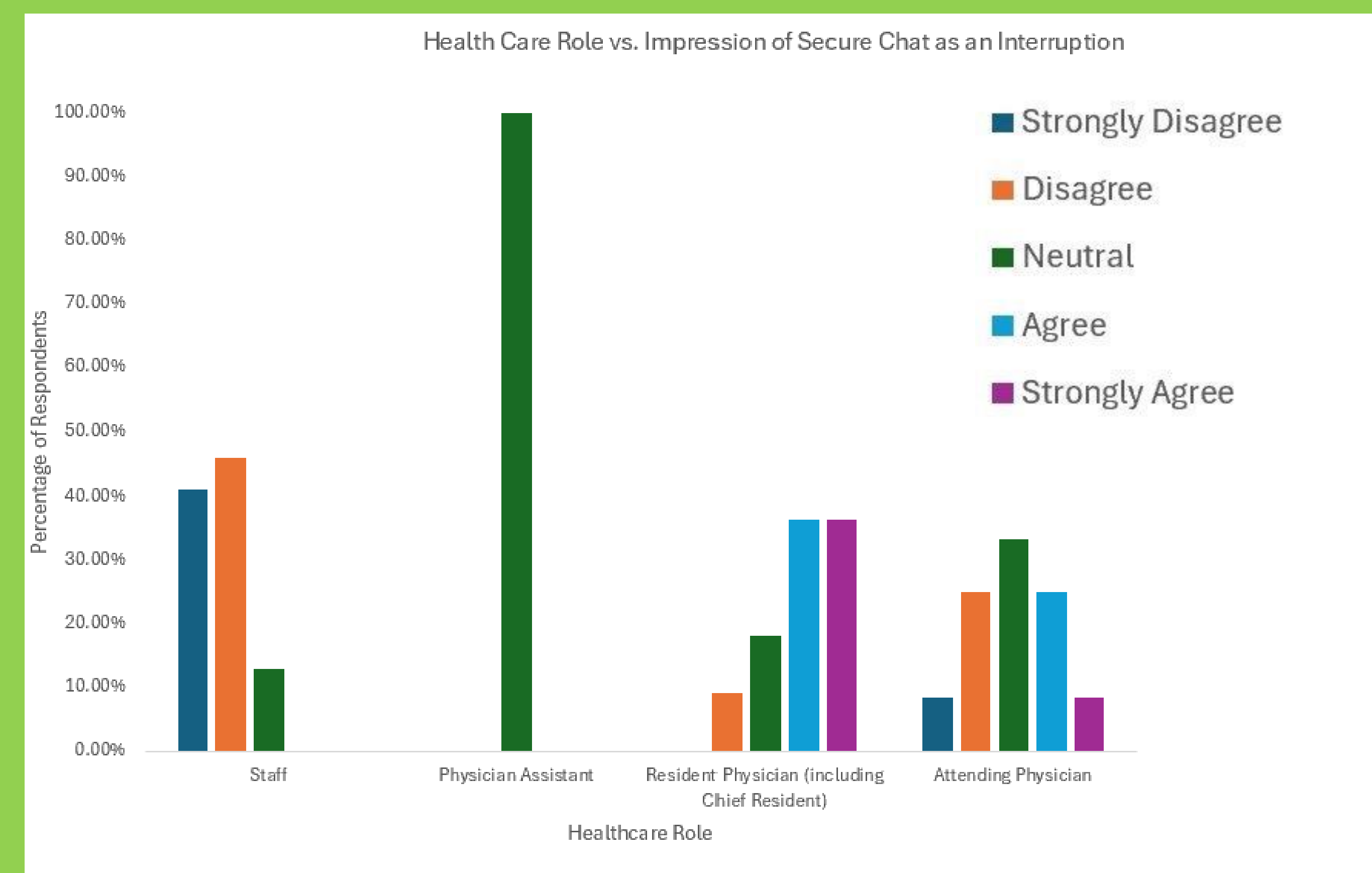


Figure 4. Residents are the most likely to perceive messages as an interruption.

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DISCUSSION

- Response rates:
 - Overall: 16.32% (62/380)
 - Staff: 16.25% (39/240)
 - Resident Physicians: 13.75% (11/80)
 - Attending Physician/APPs : 20% (12/60)
- Residents showed the most negative sentiment regarding Secure Chat. Nurses and medical assistants showed the most positive sentiment.
- Attending Physicians and Residents were also more likely to report Secure Chat messages as an interruption and that these interruptions were harmful to patient care. Nurses did not report harmful interruptions.
- Open responses had themes related to being added to unnecessary chats and lack of non-virtual communications as opportunities for improvement.

CONCLUSIONS & NEXT STEPS

- Overall, the impressions regarding Secure Chat were positive but did vary depending on role on the healthcare team.
- Limitations for this study included a limited sample size, which should be expanded in future studies.
- Further studies should investigate which role is likely to be the target of the initial message, use in different health care settings, as well as further depth into rationale behind attitudes regarding interruption.

Acknowledgements:

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REFERENCES

¹ Chandra S, Oberg M, Hilburn G, Wu DT, Adhyaru BB. Improving Communication in a Large Urban Academic Safety Net Hospital System: Implementation of Secure Messaging. *J Med Syst.* 2023;47(1):56. Published 2023 May 2. doi:10.1007/s10916-023-01956-x

² Luu T, Spiegelman L, Nykin D, et al. Implementation of an Electronic Health Record-Based Messaging System in the Emergency Department: Effects on Physician Workflow and Resident Burnout. *J Patient Saf.* 2022;18(2):e542-e546. doi:10.1097/PTS.0000000000000869