

INTRODUCTION

Artificial Intelligence (AI) is becoming increasingly popular in everyday life, including healthcare.² AI is transforming healthcare through predictive analytics, robotic surgery, treatment recommendations, and administrative efficiency.⁷ However, barriers such as lack of education, privacy concerns, trust issues, cost, and job loss hinder its adoption. This study examines AI utilization in healthcare and identifies challenges faced by non-users.⁸ Understanding these barriers can help address them, ultimately improving patient care. As AI evolves, healthcare professionals must stay informed to enhance outcomes and efficiency.

PURPOSE OF STUDY

To explore the use of AI in clinical practice including how it's currently being utilized, what hesitations prevent AI use, and what is the current interest to implementation of AI in medical practice.

METHODS

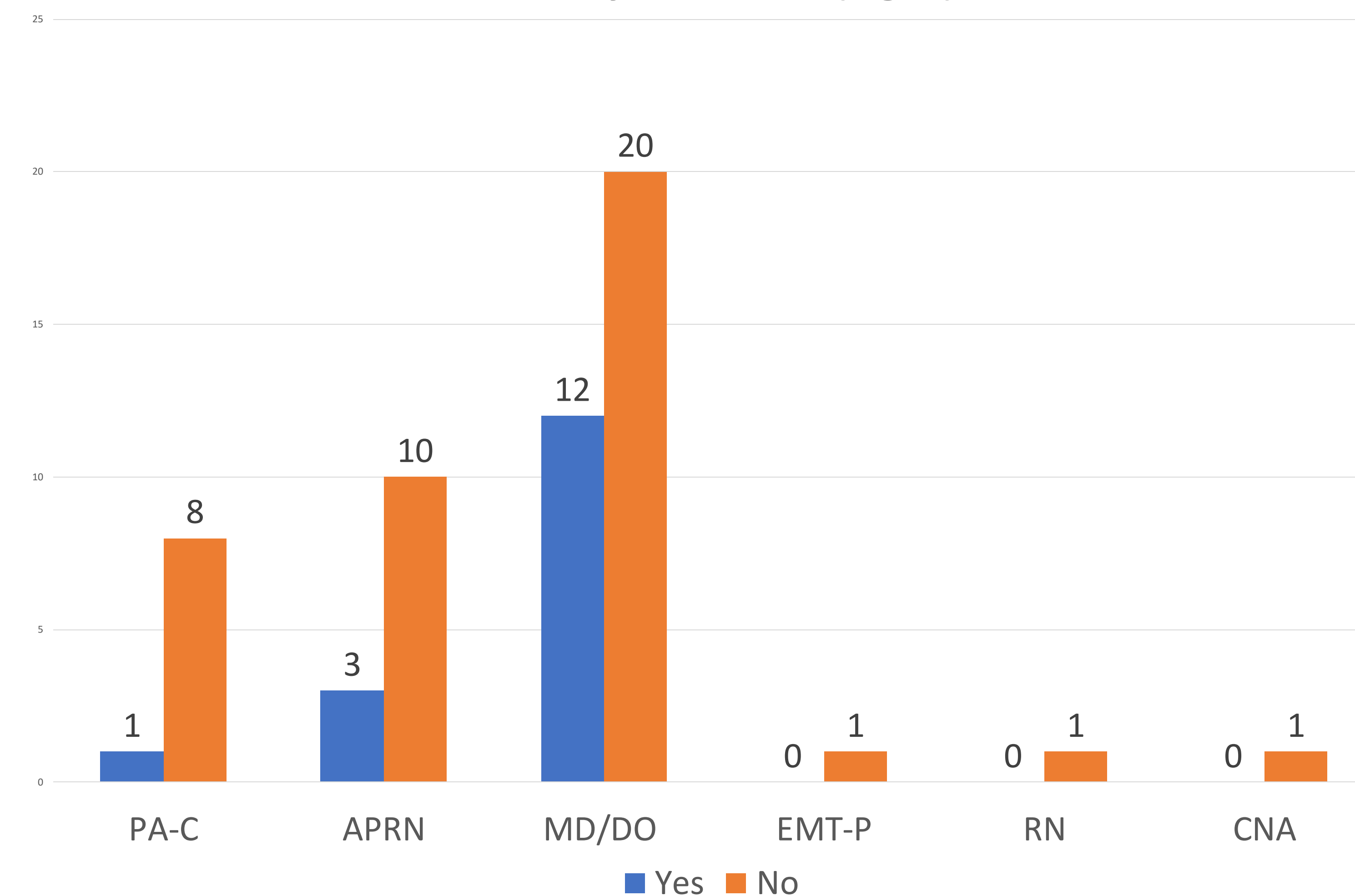
This study used an anonymous **electronic survey** via Qualtrics to assess Artificial Intelligence (AI) use among healthcare personnel, including MD/DO, PA, NP, CRNA, RN, EMT, and CNA. Participants reported their job titles and AI usage in daily tasks. Those using AI detailed its **applications, frequency, efficiency, and helpfulness**, while non-users shared their **interest and concerns**. Data analysis was conducted using Qualtrics and Excel. The study was approved by the University of Kentucky IRB (Protocol #100377).

Scan to See Survey



RESULTS

AI Use by Profession (Fig. 1)

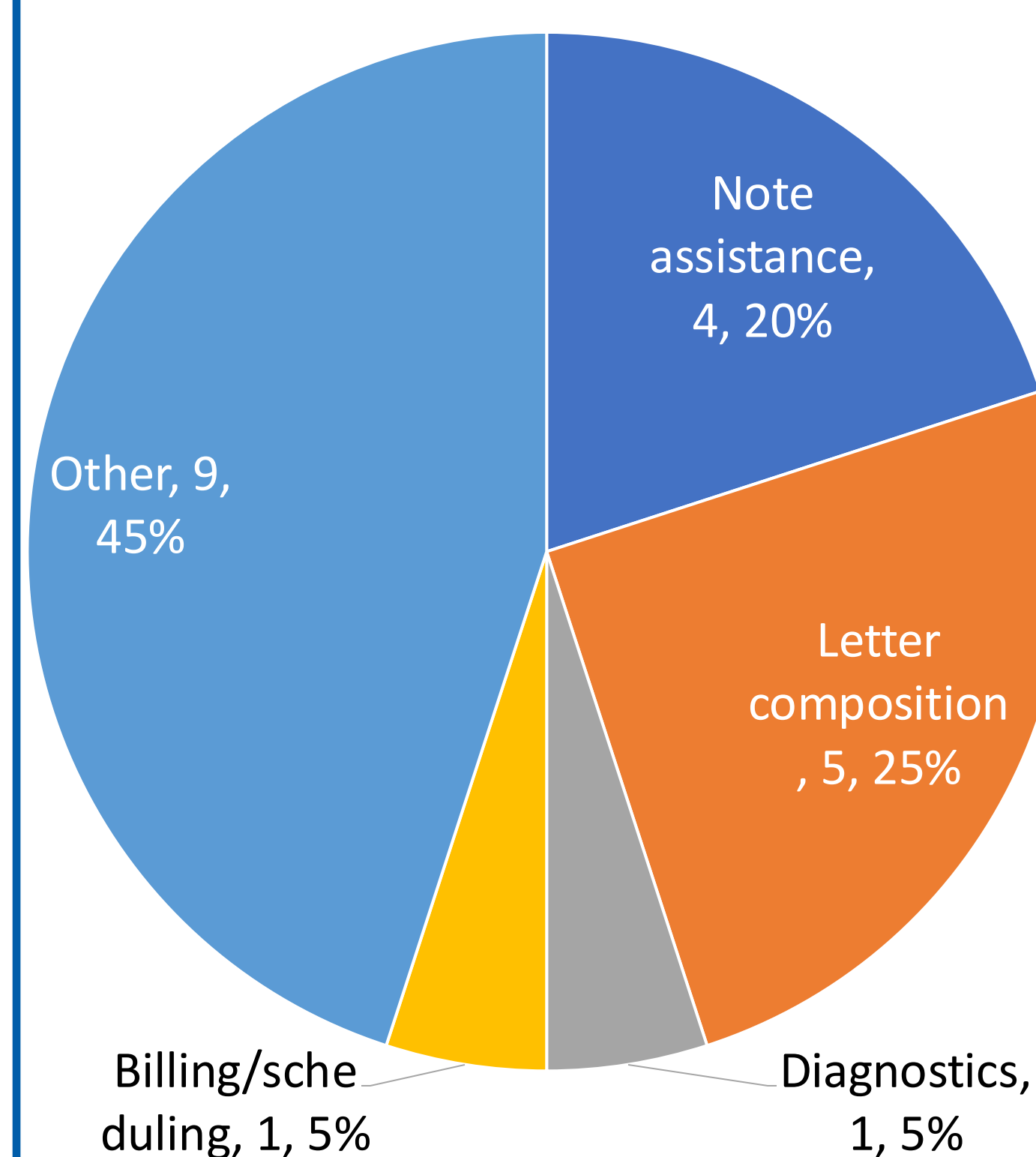


Results consisted of **57 utilizable responses** that included:

- 32 MD/DOs, 9 PA-Cs, 13 APRN's, 1 EMT, 1 RN, and 1 CNA

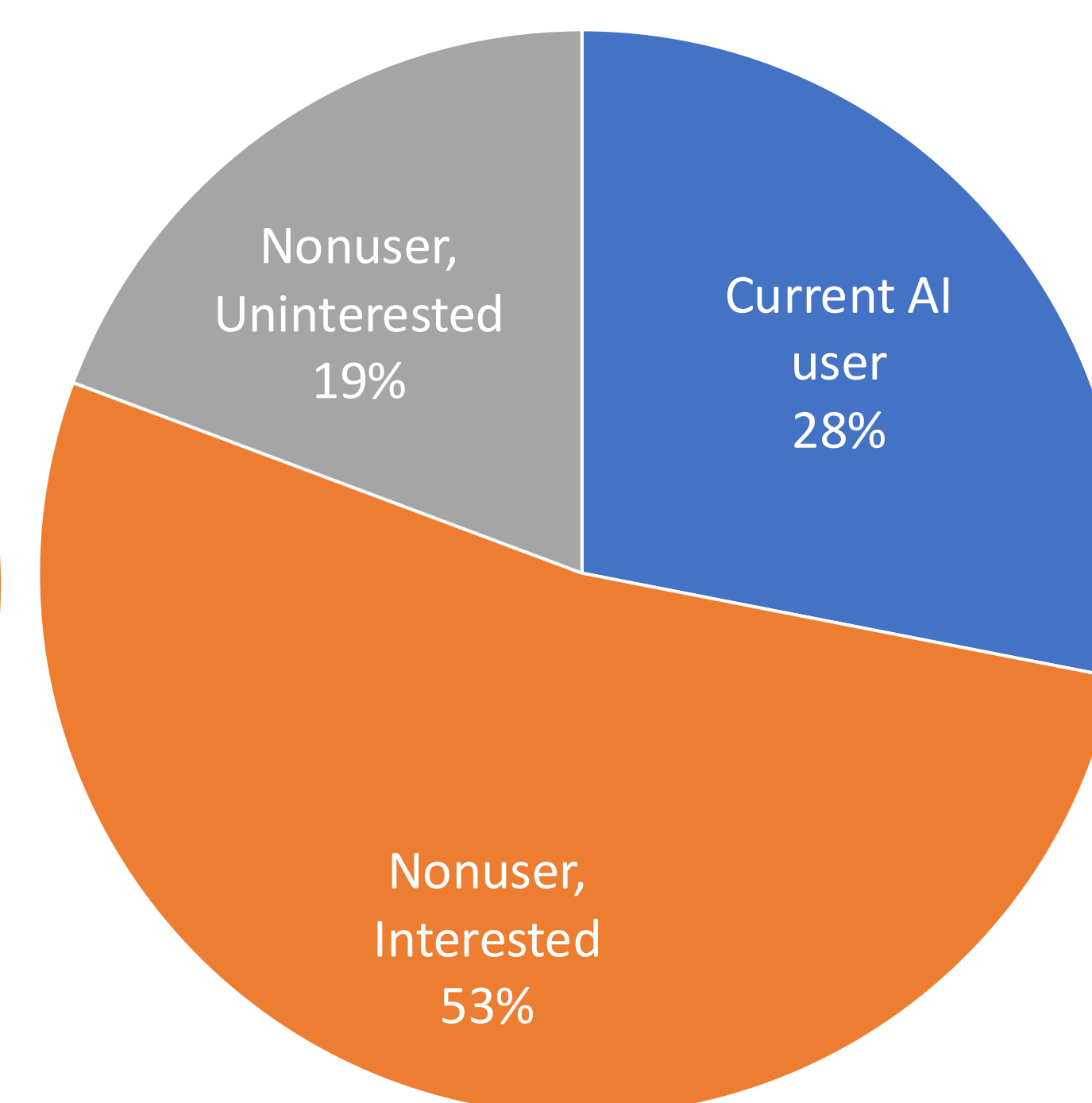
Of the respondents, **28% selected they do utilize AI** in their everyday practice and **72% do not use AI** in their everyday practices. (see Fig.1)

AI Use Cases (Fig. 2)



AI was used for note assistance, letter composition, diagnostics, billing/scheduling, literature synthesis, treatment research/ research idea generation, and differential diagnosis generation (see Fig 2)

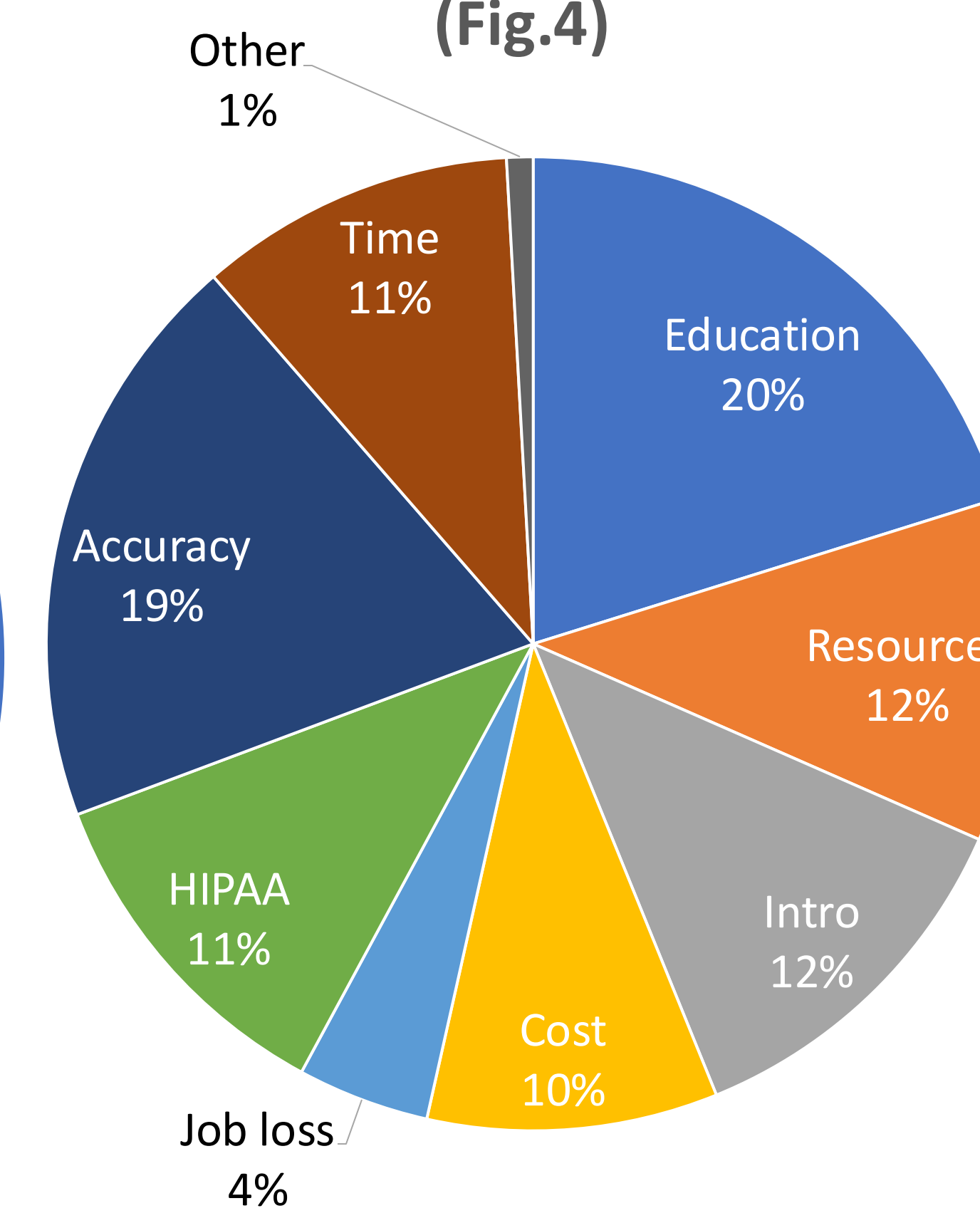
AI User Status and Interest (Fig. 3)



Of the 72% of non-AI users, 26% reported they did not have interest in using AI in their practice (see Fig.3)

All current AI users in this study endorsed improved efficiency in their practice because of AI

AI Nonuser Hesitations (Fig.4)



72% of non-users did not use AI for the following reasons: time, accuracy, HIPAA, job loss, cost, intro, resources, and education. (See Fig 4)

DISCUSSION

This study emphasizes the novelty of AI and the curiosity it generates. Every current AI user in this study reported increased efficiency as a key benefit, and majority of nonusers expressed interest. It would be beneficial to work on addressing the barriers found in this study. This research provides opportunities for future studies to have more directed studies on avenues of AI usage. To maximize AI adoption, it is crucial to address the identified barriers through targeted strategies:

•Education and Training Opportunities

- Providing Continuing Medical Education (CME) for courses on various usage forms of AI

•Hospital Specific AI Policy

- Hospital AI committees
- AI Guidelines set by hospital administration

• Addressing Concerns of Non-Users

- HIPAA and Security Training: AI-Specific HIPAA training.
- Cost and Benefit Analysis: Future studies analyzing the cost of implementing AI versus the benefits and predicted money saved due to increased efficiency

CONCLUSION

AI use in medicine varies by profession, with physicians leading, followed by APRNs and PAs. Common applications include note assistance, letter composition, and diagnostics. Adoption is limited by concerns over accuracy, HIPAA compliance, training, cost, and job displacement. Addressing these through education, clarity, and cost reduction could enhance integration. A limitation is the small sample size, which may not reflect broader trends. Future research should assess AI's long-term impact on clinical outcomes.

REFERENCES

