# Medical Students' Perceptions of Large Language Models in Healthcare: A Multinational Cross-Sectional Study



جـامـعـة محـمـد بـن راشـد للـطـب و الـعلـوم الـصـحـيـة MOHAMMED BIN RASHID UNIVERSITY OF MEDICINE AND HEALTH SCIENCES

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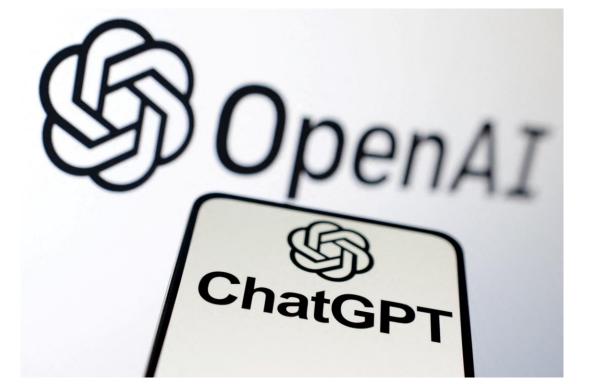
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### WHAT'S THE DEAL WITH LLMs?

The rapid advancement of Artificial Intelligence has opened new possibilities in various fields, including healthcare.





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Large Language Models (LLMs), such as OpenAI's ChatGPT, have gained popularity for being able to generate human-like text, making them potential tools for enhancing healthcare delivery, clinical research and medical education<sup>1</sup>.

## RATIONALE

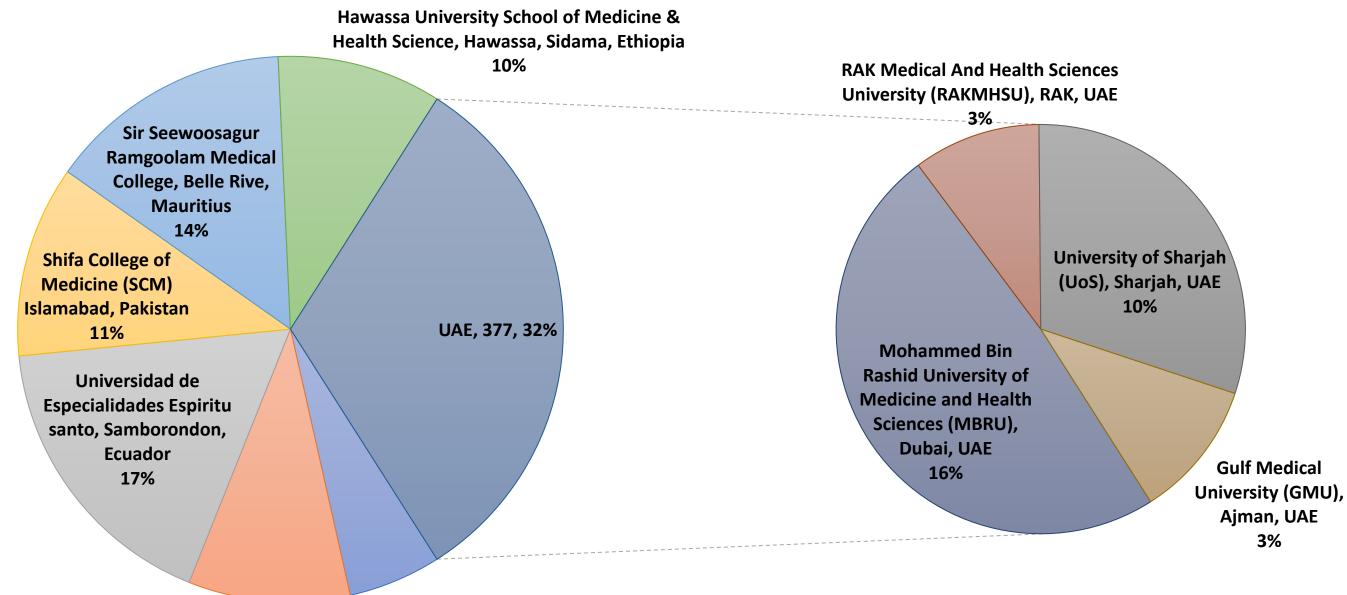


 Despite the growing interest in AI, there is a notable gap in understanding the perspectives and utility of LLMs among medical students.

- 1,180 responses from 10 medical schools across 7 countries
- UAE had the highest number of responses (31.7%)
- Majority of respondents were female (60.9%)
- 898 respondents were already aware about LLMs
- 96.4% of this population were most familiar with ChatGPT

### ANALYSIS



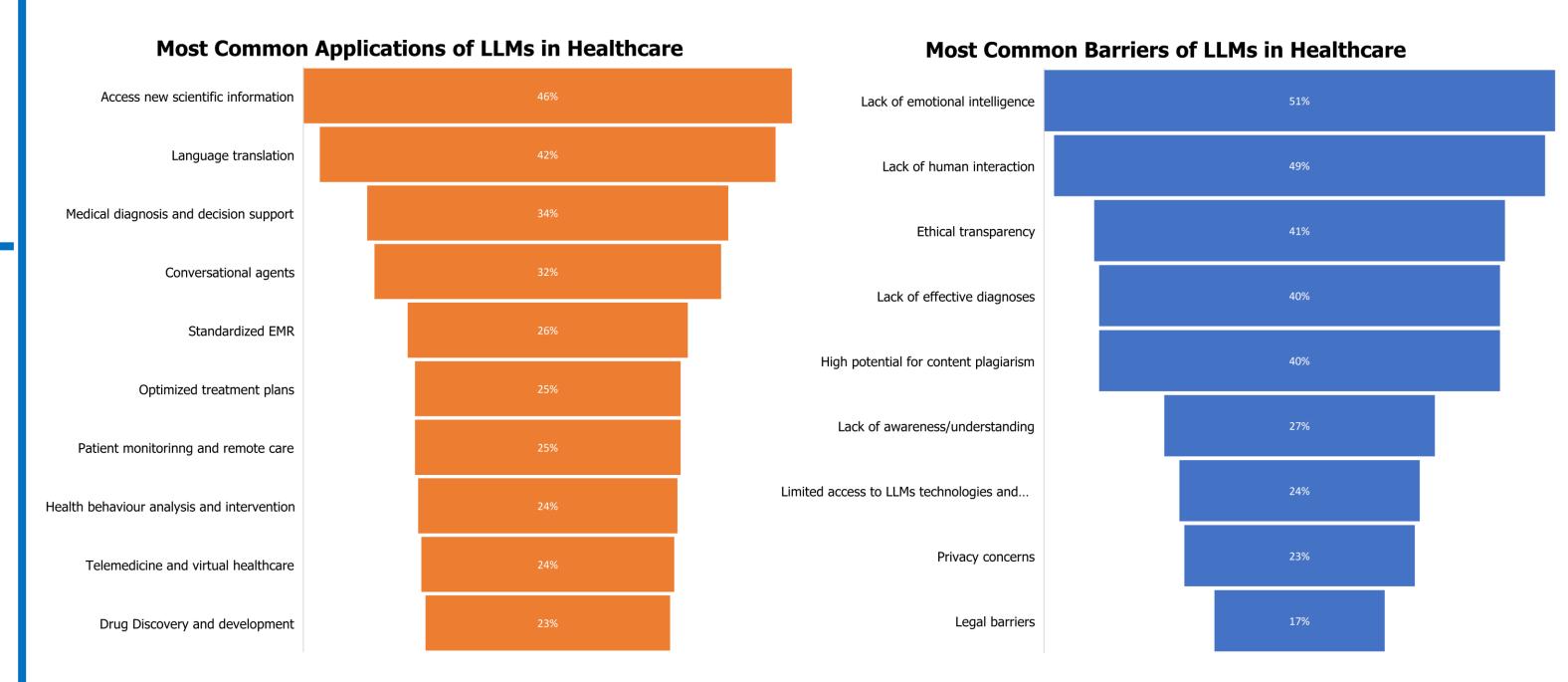


To explore the ethical considerations and transparency of LLMs among medical students

## OBJECTIVE

- Investigate the perceptions and opinions of medical students' regarding the usage of LLMs
- Explore the potential applications and barriers in the context of healthcare practice, clinical research and medical education





## METHODOLOGY

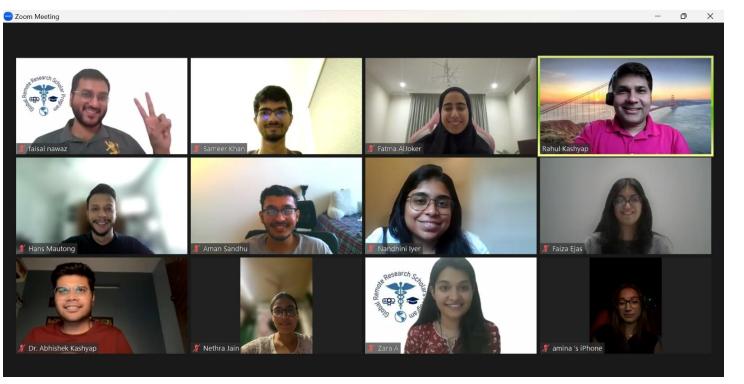
### Survey:

- Multinational survey designed on Google Forms
- Survey received internal and external validation
  Collaborated with ambassadors from 7 countries: Ecuador, Ethiopia, India, Mauritius, Pakistan, UAE and USA



- Provide an insight on the perspective that AI & LLMs indeed have a role in the healthcare and medical education system.
- Inform future strategies for utilizing LLMs and how to

Survey circulated from July 17th to August 7th, 2023



**Dissemination:** 

- Across 10 medical schools only
- Emails, social media, private texts
- Offered collaborative authorship to medical schools leads to increase response rate

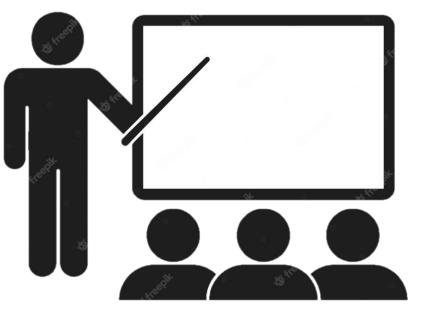
#### References

1. Sallam, M. (2023, March 19). CHATGPT utility in healthcare education, research, and practice: Systematic review on the promising perspectives and valid concerns. Healthcare (Basel, Switzerland). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10048148/

incorporate them in research methods, medical education, and healthcare practice effectively.

### CONCLUSION

 While the majority are aware of LLMs and their applications, there is still hesitancy among medical students in fully adopting it into healthcare practice and clinical research.



#### **SPECIAL THANKS**

We would like to thank the GRRSP leadership team for their valuable mentorship and guidance in this project as well as the international ambassadors who graciously cooperated to allow this project to take off and go beyond boundaries.

#### **Contact us**

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