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User Perceptions and Use of Decision Support Medical apps Among Medical Students

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Disclosure

- I have no disclosures

- Apps discussed in this presentation are not an endorsement

Background

- Health apps unprecedented growth during the COVID-19 pandemic. [1]
- Apps assist medical professionals at the point of care.
- Medical students concerned about negative perceptions of app use.[2]
- Saudi Arabia developed a HI competency framework.[3]
- Saudi Vision 2030 promotes e-Health for high-quality patient care.

1. Olsen E. Digital Health Apps balloon to more than 350,000 available on the market, according to Iqvia report. https://www.mobihealthnews.com/topics/digital-health?page=67 [accessed Nov 6, 2022].
2. Quant C, Altieri L, Torres J, Craft N. The self-perception and usage of medical apps amongst medical students in the United States: A cross-sectional survey. International Journal of Telemedicine and Applications. 2016;2016:1–5.
3. Almalki M, Jamal A, Househ M, Alhefzi M. A multi-perspective approach to developing the Saudi Health Informatics Competency Framework. International Journal of Medical Informatics. 2021;146:104362.

Study Objective

Understand the perceptions surrounding the use of medical apps by medical students in Saudi Arabia.

King Saud University – Medical College

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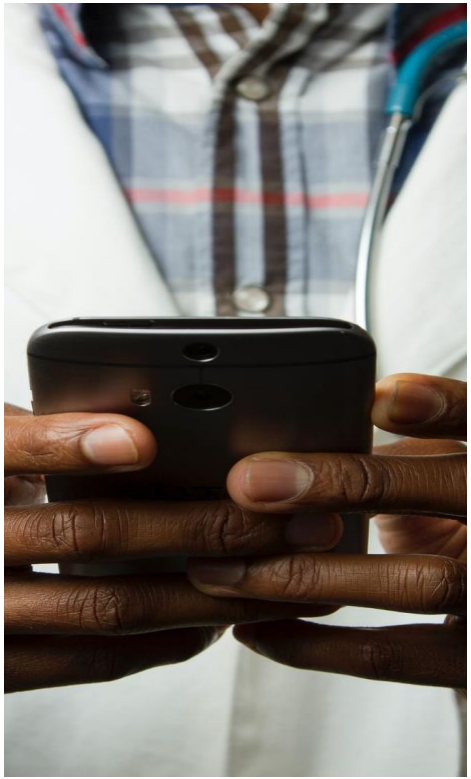
Methods

Study Design	• cross-sectional multi center, online survey
Target Population	• medical students (pre-clinical, clinical, internship)
Data Collection	• Fall 2021
App Inclusion	• top 25 grossing medical apps for July/21
Use (5 domains)	• trust, perceptions, patient impression, reliability, comfort

Distribution and Analysis

- The survey was validated and pilot tested before distribution.
- Students received a link via text messages (3 reminders).

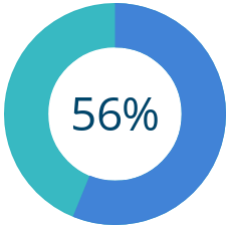
- Data analysis used SPSS version 26 (Armonk, NY: IBM Corp. USA).
- Descriptive statistics summarized the five study variables.
- Chi-square or Fisher's exact test determined significant associations ($p < 0.05$)



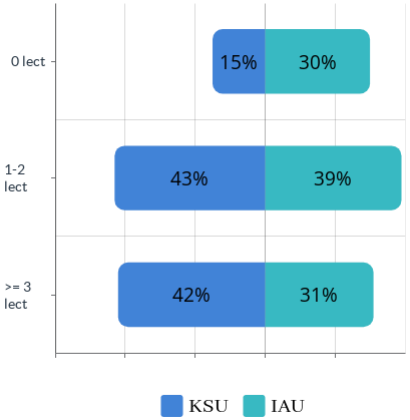
Summary of Key Findings

- 439 medical students completed the survey (248 KSU: 191 IAU).
- Equal representation of students based on gender and clinical year.

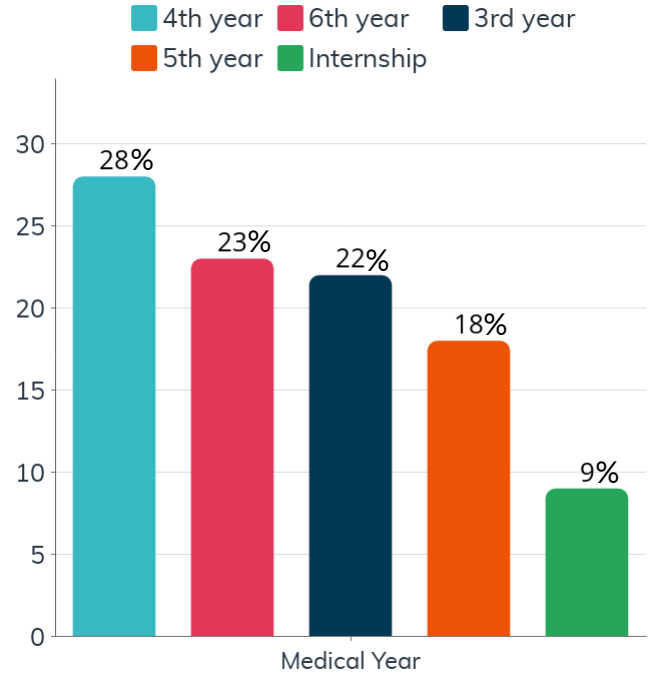
of students were from KSU



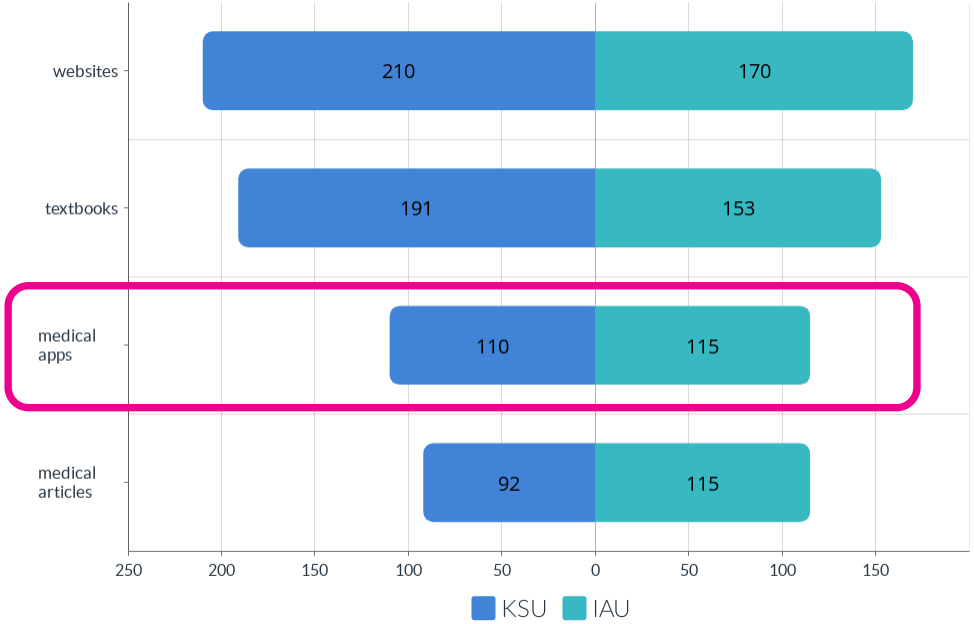
Total of 439 medical students completed the survey



use of IT in decision making



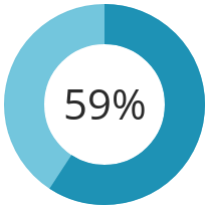
60% reported using a smartphone or tablet

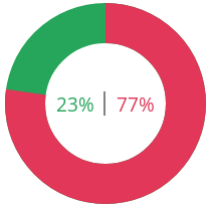


use of medical apps was the third most used resource (n=225, 51.25%)

Medical App Use

"Up to Date" most used app

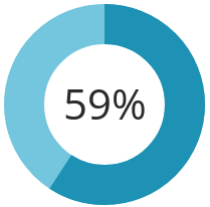


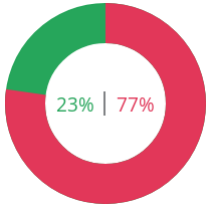


"Up to Date" most used app among IAU

Medical App Use

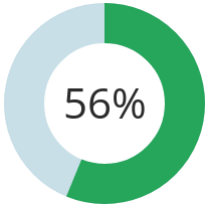
"Up to Date" most used app

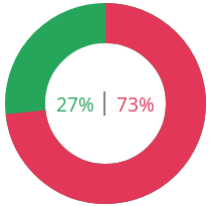




"Up to Date" most used app among IAU

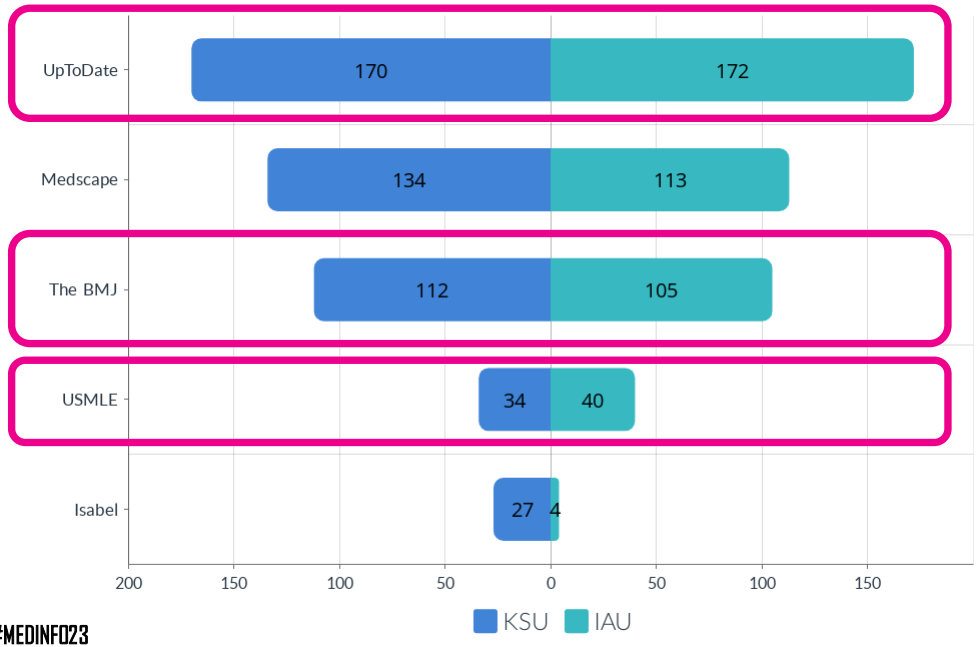
"Up to Date" most used app for differential diagnosis





"Up to Date" most used app among IAU for differential diagnosis

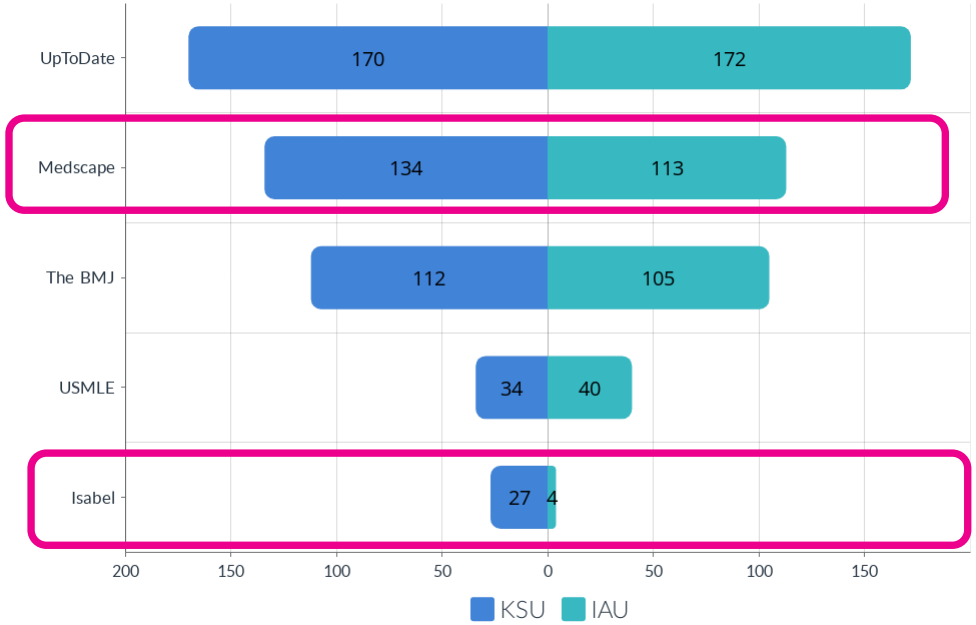
Medical App Trust



IAU trust more

- UpToDate (92% vs. 83.7%)
- The BMJ (78.9% vs. 71.8%)
- USMLE (59.7% vs. 39.5%).

Medical App Trust



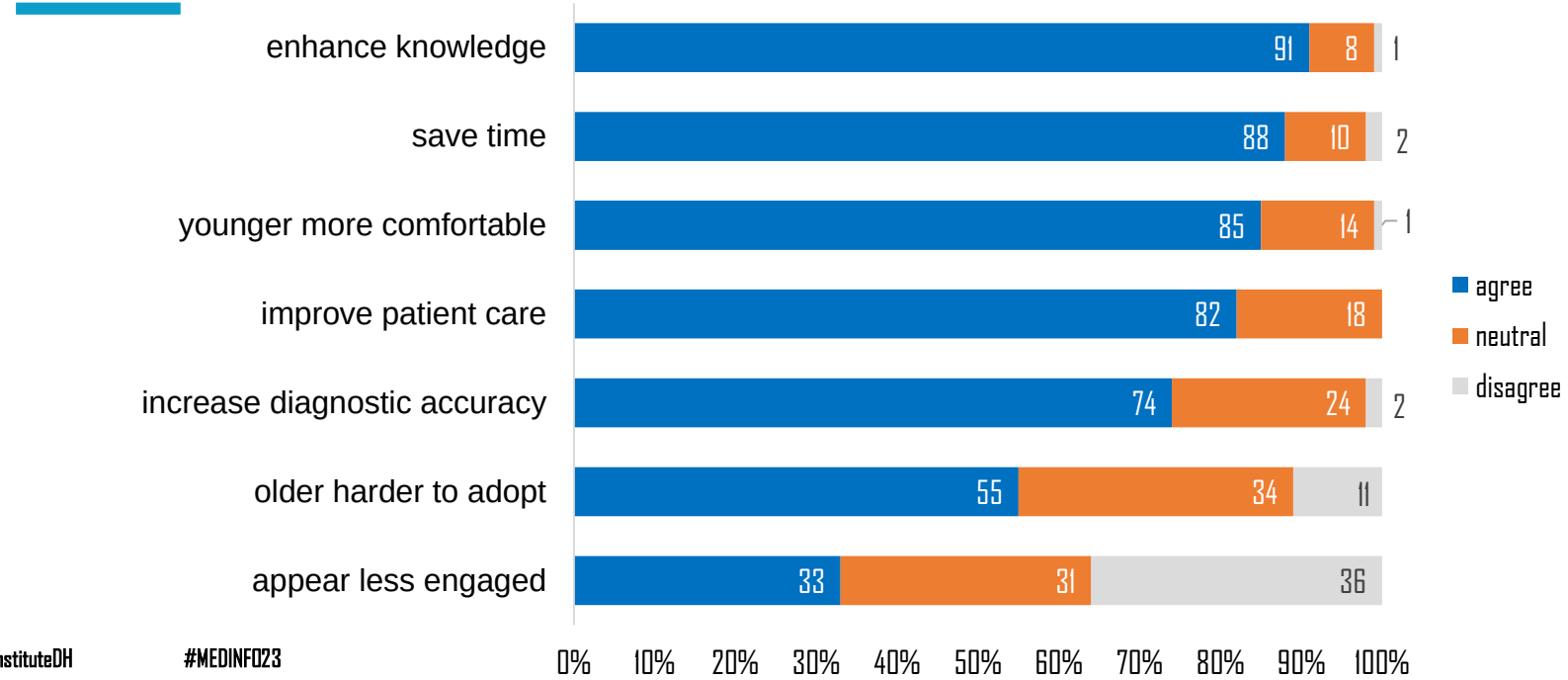
IAU trust more

- UpToDate (92% vs. 83.7%)
- The BMJ (78.9% vs. 71.8%)
- USMLE (59.7% vs. 39.5%).

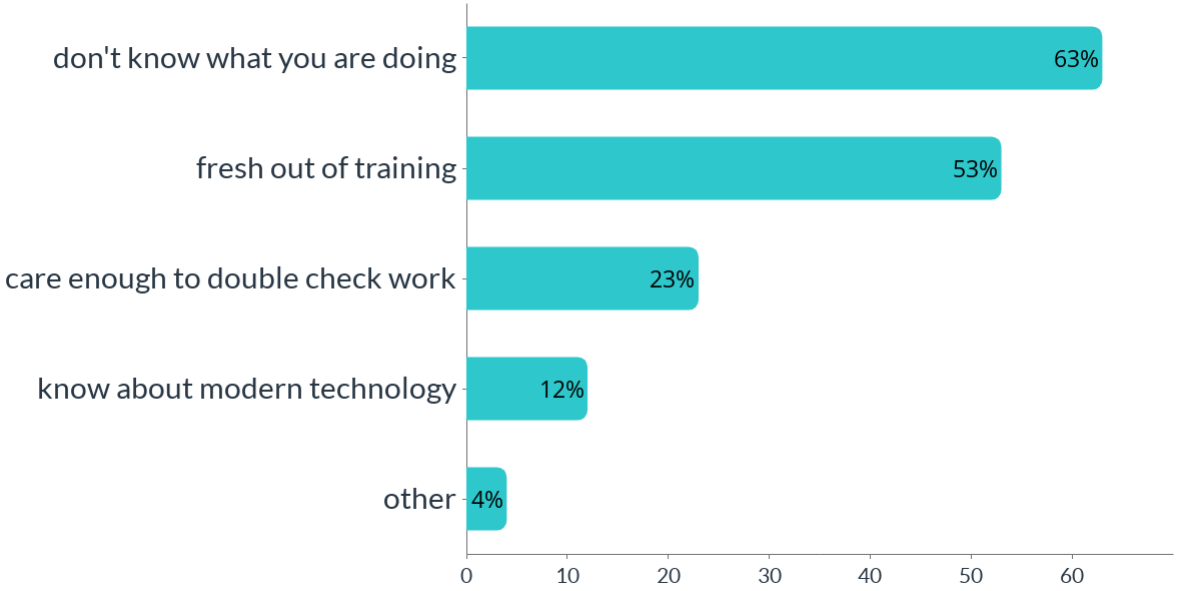
KSU trust more

- Medscape (70.9% vs. 67.3%)
- Isabel (31.8% vs. 12.1%)

Student Perceptions



Patient Impressions



Most reported a negative association when students use medical apps in the presence of patients

Reliability and Comfort

- Most students reported that medical apps were as reliable as textbooks and felt neither comfortable nor uncomfortable using medical apps in front of a patient.
- There were no significant differences found in reliability and comfort between the two groups of students.

Discussion

- Findings provide insights into the evolving digital health landscape in Saudi Arabia and its alignment with Saudi Vision 2030.
- Medical apps were reported to support clinical decision-making, but they were not the primary resource for students.
- There is a need to develop Saudi-specific medical apps linked to academic hospitals and disease registries.
- Trust perceptions and concerns about using medical apps in the presence of patients varied among students, highlighting the importance of incorporating app usage in medical education.

Conclusions

- Understanding patterns of medical apps use in healthcare education is a key step in designing new medical curriculums.
- Future studies should focus on assessing the effect of implementing specific training on student competencies in finding medical information using medical apps.

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