CHATBOTS: PIONEERING INNOVATION IN DENTAL EDUCATION – A SCOPING REVIEW

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INTRODUCTION

CHATBOTS– Generative AI
An Emerging educational tools.
AIM- To evaluate effectiveness of integrating chatbots into dental education.

METHODOLOGY

PRISMA-ScR Checklist and Joanna Briggs Institute (JBI) framework.
DATABASE SEARCH- **PubMed, ScienceDirect, Scopus, Web Of Science**
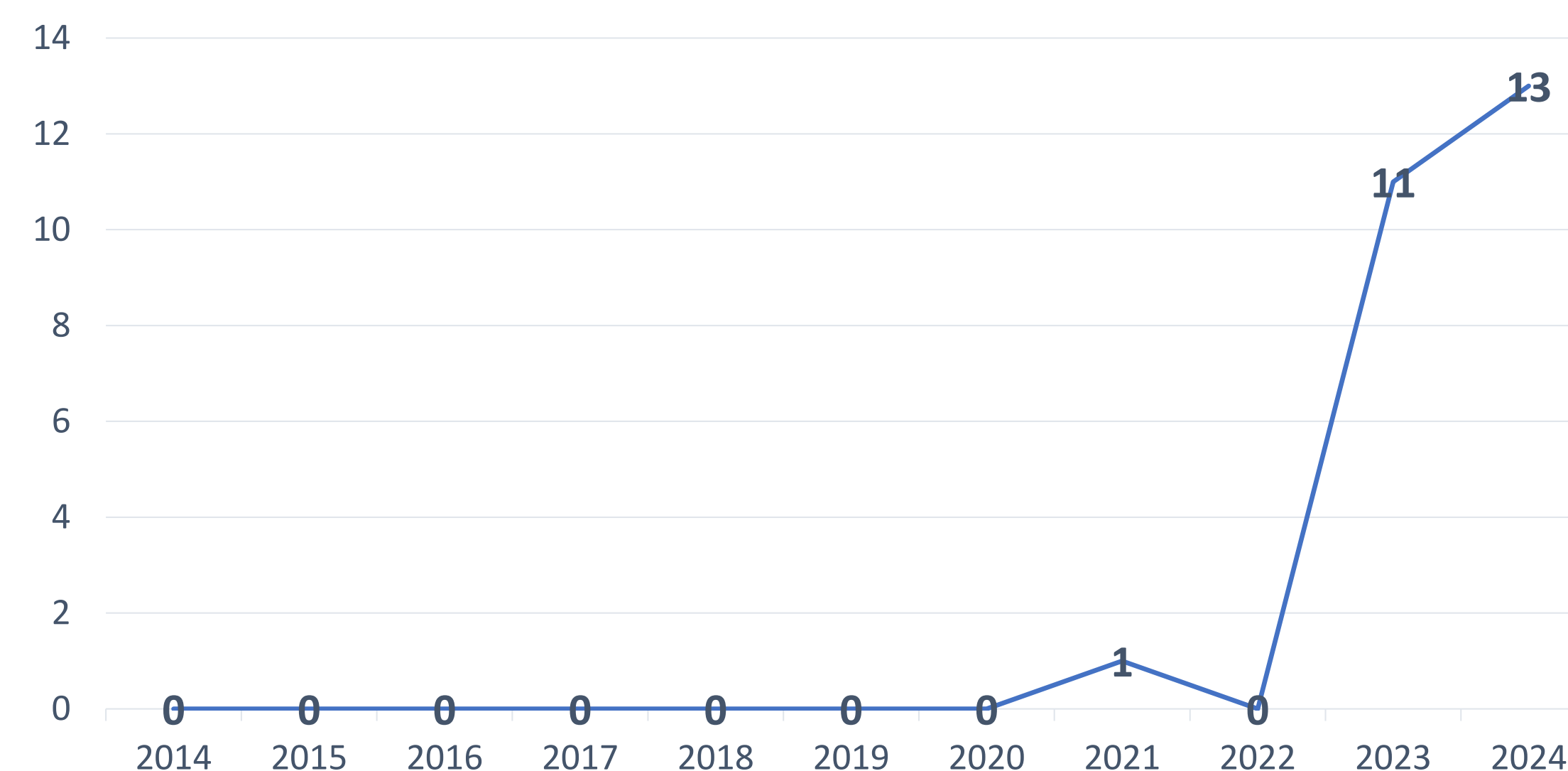Using **5 Keywords**

RECORDS IDENTIFIED	RECORDS INCLUDED BASED ON INCLUSION / EXCLUSION CRITERIA
N= 993	**N= 25**

NO. OF DOMAINS IDENTIFIED = 6

Effectiveness of chatbots
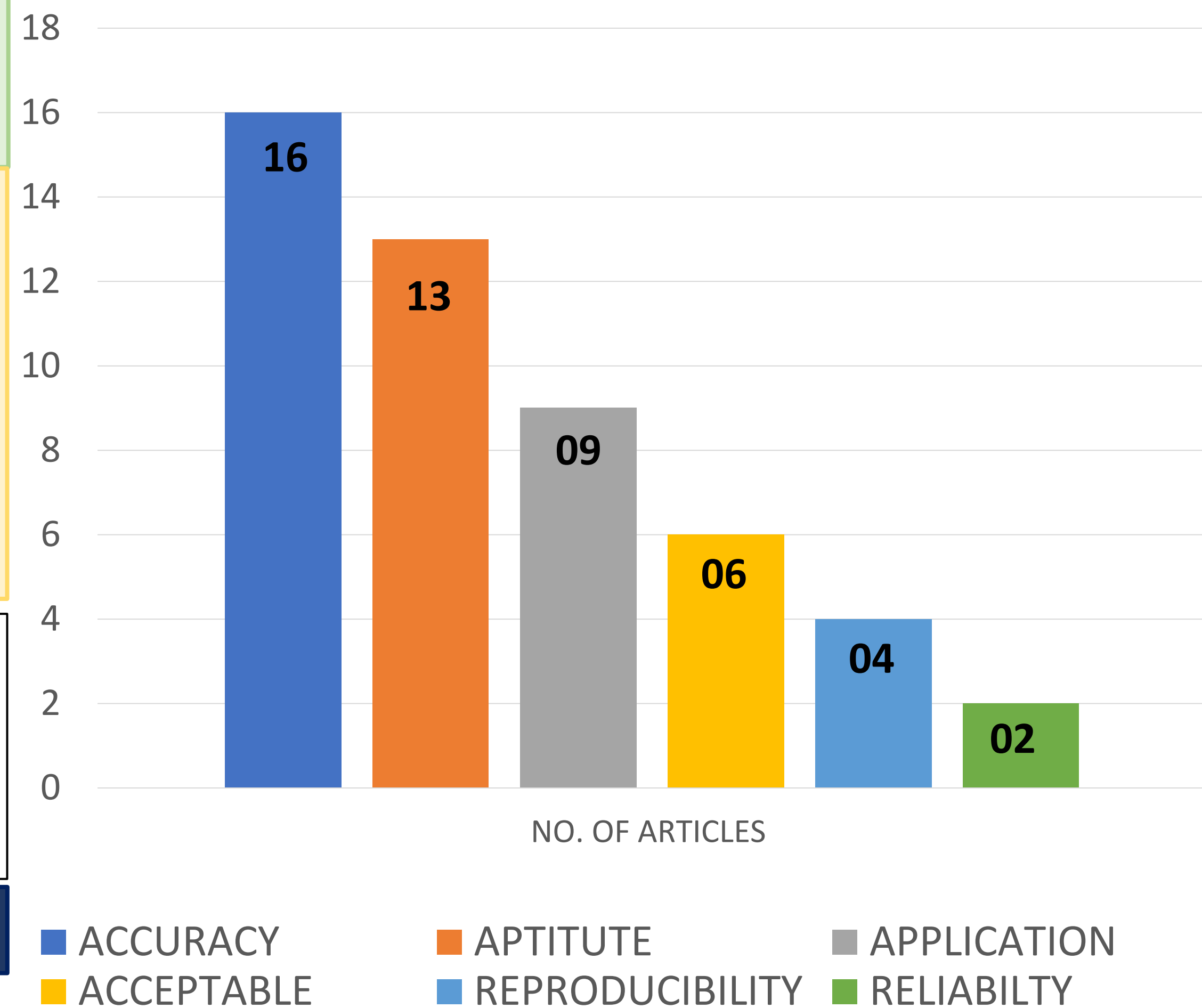
Fig. 2: No. of articles and domains

Legend: ACCURACY (16), APTITUTE (13), APPLICATION (09), ACCEPTABLE (06), REPRODUCIBILITY (04), RELIABILTY (02)

STUDIES INCLUDED FROM INDIA N=2

MAXIMUM NO. OF STUDIES - USA (6)

RESULTS

Fig. 1: No. of articles per year

DISCUSSION

- Review assessed integrating chatbots into dental education.
- Result suggests- chatbots has **potential to support dental education**
- Chatbots- **more accurate**, less reliable
- Concerns - limited knowledge, **hallucinations**, confidentiality, **mitigated** by training chatbots with relevant, up-to-date data.

CONCLUSION

- **Valuable tool**, complements expertise of experienced educators.
- Newer chatbots versions provide **highly accurate and complete answers.**
- Integrating chatbots into dental education, **collaborative best practices and ethics**.

RECOMMENDATIONS

On Community level
- Multilingual support
- Public-private partnership
- User-friendly designs
- Interdisciplinary Collaboration

On Individual level
- Self directed learning
- Question-answering
- Augment the learning process
- Learning partner

References; 1. PAGE O. Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews
2. Peters MDJ, Godfrey C, McInerney P, Munn Z, Tricco AC, Khalil, H. Scoping Reviews (2020). Aromataris E, Lockwood C, Porritt K, Pilla B, Jordan Z, editors. *JBI Manual for Evidence Synthesis*. JBI; 2024