Evidence-Based Publication Trends in Pediatric Dental Journals, 2003-2022

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INTRODUCTION

Higher-level evidence (HLE) research plays a pivotal role in advancing quality patient care within the field of dentistry. As dentistry continues to strive for excellence in patient care, it becomes increasingly important to publish HLE research in reputable journals. Meta-analyses, systematic reviews, and randomized controlled trials (RCTs) stand atop the evidence pyramid due to their lower bias and margin of error.

PURPOSE

This study aims to provide a descriptive analysis of the trends in higher-level evidence (HLE) publications within seven pediatric dental journals from 2003 to 2022, utilizing the PubMed database. Evidence-based dentistry serves as a foundation for clinical decision-making, emphasizing the importance of analyzing trends in HLE publications to gauge the field's progression and adherence to evidence-based practices.

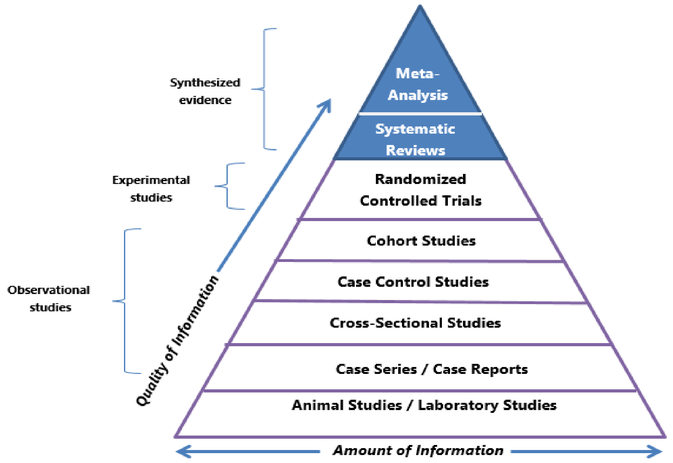

Figure 1. Hierarchy of Evidence

METHODS

Pediatric dental journals were identified through the PubMed online database using keywords such as "pediatric," "paediatric," "children," "dentistry," and "pedodontics." Only pediatric dental journals currently indexed in MEDLINE were included. The selected journals were as follows: European Journal of Paediatric Dentistry, European Archives of Paediatric Dentistry, Pediatric Dentistry Journal, Journal of Dentistry for Children (Chicago, Ill.), Journal of the Indian Society of Pedodontics and Preventive Dentistry, Journal of Clinical Pediatric Dentistry, and International Journal of Paediatric Dentistry. For each journal, the "article type" filter in PubMed was used to include only meta-analyses, randomized controlled trials, and systematic reviews. Results were downloaded into an Excel file using the "results by year" filter in PubMed from 2003 to 2022. Excel was then utilized to calculate and analyze the number of HLE publications in 2-year increments for each journal. The total combined number of HLE publications for all the journals was also calculated, and a percentage of the total was calculated for the last 6 years to show the most recent trend. A graphical representation of the data was generated in Excel.

RESULTS

From 2003 to 2022, a total of 1,131 HLE publications were recorded in the 7 leading pediatric dental journals. Notably, 44% of these publications have emerged since 2017, indicating a substantial increase in recent years. The distribution of HLE publications among the journals were as follows: European Journal of Paediatric Dentistry (n=91), European Archives of Paediatric Dentistry (n=200), Pediatric Dentistry Journal (n=197), Journal of Dentistry for Children (Chicago, Ill.) (n=35), Journal of the Indian Society of Pedodontics and Preventive Dentistry (n=133), Journal of Clinical Pediatric Dentistry (n=168), International Journal of Paediatric Dentistry (n=307). The International Journal of Paediatric Dentistry emerged as the leading journal in terms of total HLE publications with 307.

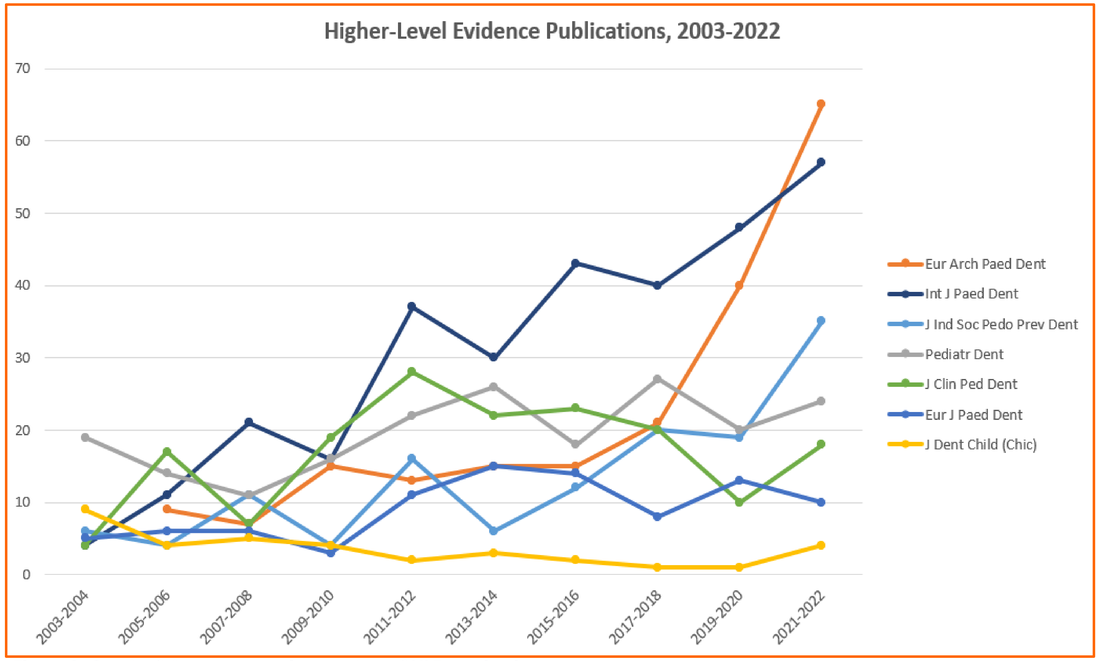

Figure 2. Graph of data representing number of HLE publications

DISCUSSION

The results of this study demonstrate a positive trend in HLE publications in 6 of the 7 selected pediatric dental journals from 2003 to 2022. The significant increase in HLE publications in recent years reflects the growing emphasis on evidence-based dentistry in pediatric dentistry. This trend is consistent with the broader patterns observed in other medical and dental journals.

CONCLUSIONS

The findings of this study highlight the increasing importance of HLE research in pediatric dentistry and its impact on advancing patient care quality. The significant growth in HLE publications in recent years underscores the need for continued support and dissemination of such research in pediatric dental journals.

REFERENCES

1. "Hierarchy of Evidence." Evidence-Based Practice: Study Design, Duke University Medical Center Library and Archives, guides.mclibrary.duke.edu/ebm/studydesign. Accessed 21 Feb. 2024.