The Saudi Dental Journal (2023) 35, 812–818

King Saud University

The Saudi Dental Journal

www.ksu.edu.sa
www.sciencedirect.com

ORIGINAL ARTICLE

Level of evidence analysis of the Saudi Dental Journal: A bibliometric analysis of publications from 2012 to 2021

Faris Z. Jamjoom [a,b,*], Nasibah Al-Barrak [b,c], Hanan Al-Shehri [b,c], Raj Kiran Chitumalla [a,b], Ikram Ul-Haq [b,c]

[a] *Restorative and Prosthetic Dental Science Department, College of Dentistry, King Saud bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia*
[b] *King Abdullah International Medical Research Center, Ministry of National Guard Health Affairs, Riyadh, Saudi Arabia*
[c] *College of Dentistry, King Saud bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia*

Received 27 March 2023; revised 16 June 2023; accepted 17 June 2023
Available online 23 June 2023

KEYWORDS

Level of Evidence;
Evidence-based dentistry;
Saudi Dental Journal;
Bibliometric

Abstract *Objectives:* The Level of Evidence (LOE) ranking system is used to measure the methodological quality of research. This study aimed to analyze and evaluate the trends of LOEs in articles published in the Saudi Dental Journal (SDJ) between 2012 and 2021.

Methodology: The bibliometric details of all articles published from 2012 to 2021 were extracted from the SDJ website. All articles, expect editorials, were included in the analysis. The articles were divided based on LOEs, dental specialties, number of authors, and centers. The citation metrics were obtained from Google Scholar, and the statistical analysis was performed using JMP Pro 15.2.0 software.

Results: Five hundred twenty-two articles were selected for analysis. They had an average of 21.19 citations per article, and a growing trend in the number of articles was observed. Authors from 40 countries contributed to the articles, with the most contributions from the Kingdom of Saudi Arabia. Most articles (n = 269; 51.53%) were LOE IV and V, while a low proportion (5.56%) were LOE I articles. Aside from miscellaneous articles, periodontics composed most of the LOE I studies, followed by endodontics, and oral and maxillofacial Surgery (OMFS). Orthodontics had the highest number of LOE II studies, pediatric dentistry had the most LOE

* Corresponding author at: Department of Restorative and Prosthetic Dental Sciences, College of Dentistry, King Saud bin Abdulaziz University for Health Sciences, Ministry of National Guard Health Affairs, Riyadh, Saudi Arabia.
E-mail address: jamjoomf@ksau-hs.edu.sa (F.Z. Jamjoom).

Peer review under responsibility of King Saud University. Production and hosting by Elsevier.

Production and hosting by Elsevier

https://doi.org/10.1016/j.sdentj.2023.06.006

IV, and prosthodontics had the most LOE V studies. No significant correlations were found between LOE and the number of authors or centers. However, a significant correlation was found in the distribution of LOE contributed by academic institutes.

Conclusion: The study results highlight that most articles were LOE IV and V, whereas nominal LOE I articles were found. Furthermore, there is a need to encourage dental scientists to carry out high-quality evidence studies. Professional dental societies can play a pivotal role in this regard.

1. Introduction

The level of evidence (LOE) ranking system is used to gauge the methodological quality of research (Chen et al., 2019; Amiri et al., 2013). Higher LOEs usually indicate a more robust methodology with reliable and reproducible results (Rajeh and Khayat, 2021). Therefore, the highest LOE is reserved for randomized controlled trials (RCTs), systematic reviews (SRs), and *meta*-analyses (MAs) of RCTs (Amiri et al., 2013). The Oxford Center for Evidence-based Medicine LOE is among the most widely used ranking systems, which has been adopted and adapted by many journals and researchers (Rajeh and Khayat, 2021; Meng et al., 2020; OCEBM Levels of Evidence, 2023; Howick et al., 2011). It provides an overview of the study design and allows clinicians, patients, and researchers to quickly identify the best available evidence (Chen et al., 2019).

Understanding the current status and LOE trends is the initial step toward improving research quality and guiding clinical practice (Chaudhry et al., 2011). Several bibliometric studies have assessed the characteristics and LOEs of articles published in different dental fields (Chen et al., 2019; Meng et al., 2020; Wu et al., 2020; Nabil and Samman, 2021; Suhaym et al., 2021;Susarla et al., 2015; Cheng et al., 2017). The LOEs of individual scientific journals have also been investigated (Chaudhry et al., 2021; Shafiei and Shahravan 2013). Other studies have focused on top-cited articles in specific fields or journals (Ahmad and Elgamal, 2020;Fardi et al., 2011; Fardi et al., 2017; Feijoo et al., 2014; Hui et al., 2013).

The number of citations is an important metric for judging individual scientific articles (Meng et al., 2020). Although articles with higher LOEs are expected to have greater citation counts, a correlation between LOE and citation count is not always found (Fardi et al., 2017; Feijoo et al., 2014). Nevertheless, several bibliometric studies reported higher citation counts with higher LOEs (Meng et al., 2020; Wu et al., 2020; Cheng et al., 2017).

The *Saudi Dental Journal* (SDJ; ISSN: 1013–9052) is an open-access, peer-reviewed publication in dentistry. It is the official journal of the Saudi Dental Society published by King Saud University in Saudi Arabia (Saudi Dental Journal, 2023). In 2021, the SDJ was ranked eighty-ninth in dentistry and second in the Middle East. It is also the first and only dentistry journal published in the Kingdom of Saudi Arabia (Scimago Journal & Country Rank, 2023). The 2021 SJR indicator was 0.49, demonstrating an upward trend from 2010. In contrast, the 2022 CiteScore is 3.1, steadily rising from 2011 (Scimago Journal & Country Rank, Journal Citation ReportsTM, 2023). From 1998 to 2017, the SDJ had the second largest number of publications among Saudi-affiliated researchers, preceded by the *Journal of Contemporary Dental Practice* (Haq and Alfouzan, 2019). The SDJ also had the second largest number of publications by Saudi-affiliated researchers, preceded by the *Journal of the International Society of Preventive and Community Dentistry*, from 2009 to 2018 (Haq et al., 2019).

Despite the progress of the SDJ, the LOEs of articles published by the SDJ are yet to be assessed. Therefore, this study aims to determine the LOEs of SDJ articles and evaluate the trends in LOEs between 2012 and 2021. Relationships between LOEs and various article-related factors were also assessed.

2. Materials and methods

All articles published in SDJ between 2012 and 2021, excluding editorials, were included. The full texts of the selected articles were accessed through the SDJ website (https://www.sciencedirect.com/journal/the-saudi-dental-journal). The following information was collected from each article: study design (RCT, SR, MA, clinical trial, cohort study, case-control, cross-sectional, case series, case report, literature review, technical note, laboratory/animal study), time since publication in years, publishing country (based on corresponding author information), specialty (endodontics, operative dentistry, oral medicine/pathology, oral and maxillofacial surgery (OMFS), orthodontics, pediatric dentistry, periodontics, prosthodontics; if multiple specialties overlapped or could not be placed in any of the reported specialties was labelled as miscellaneous), citation number (determined through Google Scholar on 28/11/2022), number of authors, number of centers, academic affiliation (university or non-university; based on corresponding author information), and study field (clinical or non-clinical; studies deemed clinical if institutional review board approval was needed for patient intervention or the use of patient information and/or tissues). All articles were ranked according to a modified version of the Oxford Level of Evidence Scale (Rajeh and Khayat, 2021) as follows (Table 1):

Table 1 Modified Oxford's Level of Evidence Scale.

Level	Study Design
I	MAs, SRs of RCTs, and RCTs.
II	SRs of clinical trials, SRs of cohort studies, clinical trials, and cohort studies.
III	SRs of case-control studies and case-control studies.
IV	SRs of mixed low evidence studies, cross-sectional studies, case-series, and case reports.
V	Literature review, technical note, and laboratory/animal study.

Level I (MAs, SRs of RCTs, and RCTs), Level II (SRs of clinical trials, SRs of cohort studies, clinical trials, and cohort studies), Level III (SRs of case-control studies and case-control studies), Level IV (SRs of mixed low-evidence studies, cross-sectional studies, case-series, and case reports), and Level V (literature review, technical note, and laboratory/animal study).

Articles were categorized according to their LOE and the different collected variables. Descriptive statistics, such as the frequency and percentage of all collected variables, were calculated. The relationships between LOE and time since publication, number of authors, number of centers, and number of citations were evaluated using Spearman's correlation coefficient (ρ). The chi-squared (χ^2) test was used to assess the distribution of articles according to academic affiliation and field of study. Statistical analyses were conducted using statistical software (JMP Pro 15.2.0; SAS Institute, Cary, NC), with significance set at $p < 0.05$.

3. Results

In total, 522 articles published between 2012 and 2021 were included in this study. According to LOE, 212 (40.61%) articles were LOE IV, 196 (37.55%) were LOE V, 73 (13.99%) were LOE II, 29 (5.56%) were LOE I, and 12 (2.3%) were LOE III (Fig. 1). The most common study designs were cross-sectional, and laboratory/animal studies (148 [28.35 %] each). MAs, SRs, and RCTs collectively accounted for 9.96% of studies (Table 2). The overall number of articles increased over time, with the highest proportion of articles published in 2021 (n = 166; 31.8%). However, no significant correlation was found between LOE and time since publication ($R_S = -0.019$, $p = 0.6652$) (Fig. 2).

The published articles originated from 40 countries (Table 3). Saudi Arabia made the largest contribution with 270 articles (51.72 %). Reports from Saudi Arabia constituted

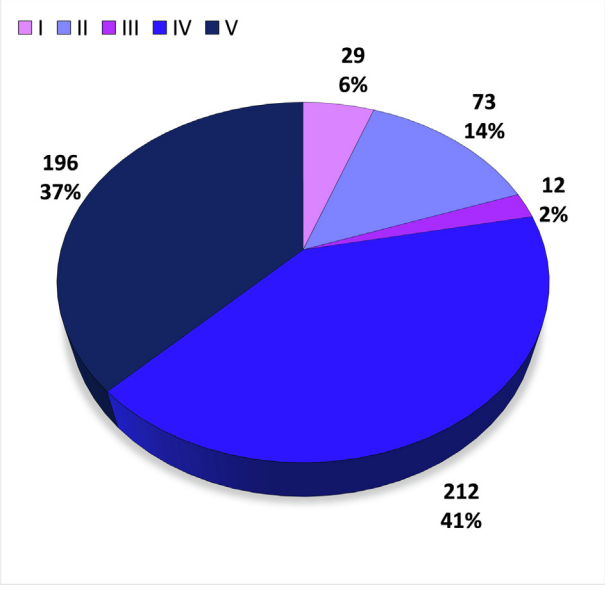

Fig. 1 The distribution of LOE in articles published in the SDJ from 2012 to 2021.

Table 2 Distribution of articles according to study design.

Study Design	Number of Articles	(%)
Meta Analysis	12	2.30
Systematic Review	21	4.02
Randomized Controlled Trial	19	3.64
Clinical Trial	33	6.32
Cohort Study	36	6.90
Case-control	12	2.30
Cross-sectional	148	28.35
Case Series	4	0.77
Case Report	42	8.05
Technical Note	2	0.38
Laboratory/Animal Study	148	28.35
Literature Review	45	8.62
Total	522	100

41.38% of LOE I, 42.47% of LOE II, 33.33% of LOE III, 67.45% of LOE IV, and 40.82% of LOE V articles. India was the second most frequently contributing country with 60 (11.49%) articles, constituting 13.79% of LOE I, 17.81% of LOE II, 8.33% of LOE III, 13.68% of LOE IV, and 6.63% of LOE V. Brazil was the third most frequent contributor with 20 (3.83%) articles, constituting 13.79% of LOE I, 1.37% of LOE II, 0.94% of LOE IV, and 6.63% of LOE V articles. Interestingly, Iraq was the second largest contributor to LOE-III articles, accounting for 16.67% of the total.

Regarding specialty, 210 (40.23%) articles were labelled as miscellaneous, which had the most significant proportion of all LOEs, with 31.03% of LOE I, 27.4% of LOE II, 50% of LOE III, 47.64% of LOE IV, and 37.76% of LOE V. The second largest proportion varied depending on the LOE. Periodontics articles constituted 27.59% of LOE I articles, followed by endodontics and OMFS (10.34% each). Orthodontics and periodontics articles comprised 23.29% and 16.44% of LOE II articles, respectively. Periodontics articles comprised 25% of LOE III articles, whereas OMFS, oral medicine/pathology, and orthodontics each comprised 8.33% of the LOE III articles. As for LOE IV articles, 10.38% were pediatric dentistry articles, and 8.96% were OMFS articles. Finally, prosthodontics and endodontics constituted 17.35% and 10.2% of LOE V articles, respectively (Fig. 3).

The analyzed articles had 11,024 citations at the time of analysis. The mean number was 21.19 (37.3), and the median (range) number of citations was 10 (0–420). Thirty-nine articles were not cited. No significant correlations were found between LOE and citation counts ($R_S = 0.0486$, $p = 0.2676$). However, a significant correlation was found between the number of years since the publication of the article and the number of citations ($R_S = 0.7055$, $p < 0.0001$).

The median (range) number of authors was 4 (1–14), and the median (range) number of centers was 2 (1–7). No significant correlations were found between LOE and the number of authors ($R_S = -0.0334$, $p = 0.4466$) or centers ($R_S = 0.0575$, $p = 0.1897$). All but 26 articles (4.98%) were from academic institutions. There were significant differences in the distribution of LOE based on academic affiliation ($p = 0.0255$). There were 288 (55.17%) non-clinical articles and 234 (44.83%) clinical articles. There were also significant differences in the distribution of LOE based on the study field ($p < 0.0001$), as

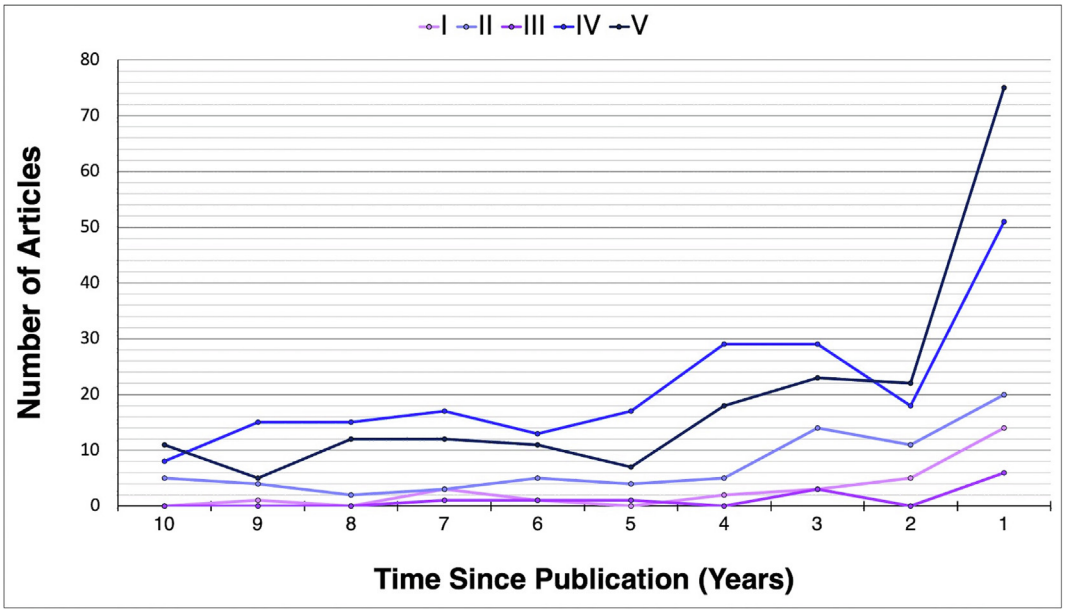

Fig. 2 Publication pattern of different LOE articles over 10 years.

Table 3 Distribution of different LOE articles by country.

Number of Articles Total % Column %	LOE					Total
	I	II	III	IV	V	
Saudi Arabia	12 2.3 41.38	31 5.94 42.47	4 0.77 33.33	143 27.39 67.45	80 15.33 40.82	270 51.72
India	4 0.77 13.79	13 2.49 17.81	1 0.19 8.33	29 5.56 13.68	13 2.49 6.63	60 11.49
Brazil	4 0.77 13.79	1 0.19 1.37	0 0 0	2 0.38 0.94	13 2.49 6.63	20 3.83
Egypt	2 0.38 6.9	5 0.96 6.85	0 0 0	2 0.38 0.94	9 1.72 4.59	18 3.45
Malaysia	0 0 0	1 0.19 1.37	0 0 0	4 0.77 1.89	10 1.92 5.1	15 2.87
Iraq	1 0.19 3.45	1 0.19 1.37	2 0.38 16.67	2 0.38 0.94	8 1.53 4.08	14 2.68
United Arab Emirates	0 0 0	4 0.77 5.48	0 0 0	2 0.38 0.94	8 1.53 4.08	14 2.68
United States of America	1 0.19 3.45	0 0 0	0 0 0	1 0.19 0.47	10 1.92 5.1	12 2.3
Rest of the World*	5 0.96 17.24	17 3.26 23.28	5 0.96 41.67	27 5.17 12.75	45 8.62 22.97	99 18.97
Total	29 5.56	73 13.99	12 2.30	212 40.60	196 37.55	522

* Algeria; Australia; Canada; Chile; Colombia; Germany; Hungary; Indonesia; Iran; Italy; Japan; Jordan; Kuwait; Lebanon; Mexico; Morocco; New Zealand; Nigeria; Pakistan; Palestine; Poland; Portugal; Qatar; Russia; South Africa; Switzerland; Syria; Thailand; Turkey; United Kingdom; Yemen.

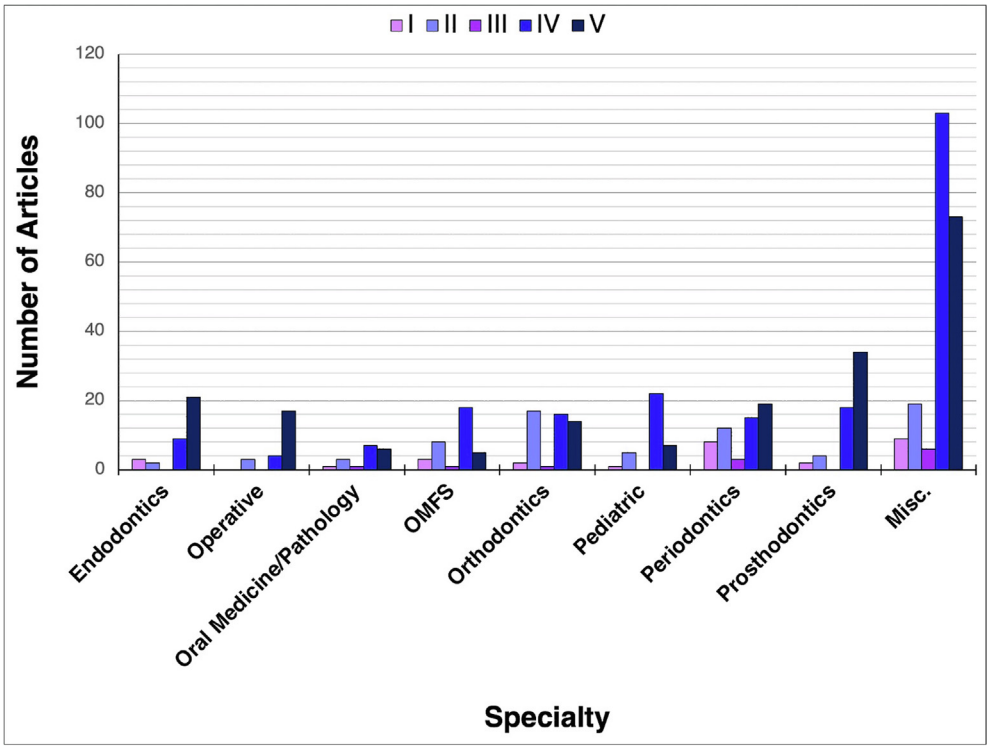

Fig. 3 Distribution of different LOE articles by specialty.

clinical studies had higher LOEs in general, constituting 65.52% of LOE I and 90.41% of LOE II articles.

4. Discussion

This study aimed to quantify LOE based on a modified version of the Oxford LOE Scale in 522 articles published in the SDJ between 2012 and 2021. The SDJ is an important platform for sharing the latest oral health research between Saudi Arabia and the world. A promising but fluctuating periodic growth of articles was observed. Consistent growth was recorded from 2012 to 2015, followed by a sharp decline in 2016. However, an upward trend was observed over the next three years (2017–2019), and remarkable growth (n = 166; 31.8%) was observed in 2021. Starting in 2020, the SDJ increased its publication frequency from quarterly to eight issues per year, which caused a significant increase in the number of articles.

This study found that slightly more than half of the studies (51.72%) were from Saudi Arabia based on the corresponding author affiliation. Haq et al. (2019) reported that Saudi Arabia contributed to 3.63% of global dental research, with the SDJ being the second most frequently used journal. The remaining articles (48.28%) were contributed by authors from 39 other countries. This highlights the confidence of the international dental research community in the SDJ. India was the second-most contributing country to the SDJ (11.49%). Similarly, India was the second largest contributor to the *Saudi Endodontic Journal* (SEJ) after Saudi Arabia (Alfadley et al., 2021).

In total, 522 SDJ articles were cited 11,024 times, averaging 21.19 citations per article. The percentage of cited articles was 92.52% with 1–420 citations, and the median range of citations was 10. The citation count and age of the article were significantly correlated, whereas the citation count had no significant correlation with LOE. A study in the SEJ reported that articles published between 2011 and 2020 gained an average of 3.8 citations per article (Alfadley et al., 2021). Another study on dental research in Saudi Arabia stated that 1,771 Web of Science-indexed papers gained an average of 5.83 citations per article (Haq and Alfouzan, 2019).

The share of Saudi Arabia in LOE IV articles was 27.39%, whereas that in high-evidence dental research was 8.23%, as only 12 LOE I and 31 LOE II articles were published. Most articles (n = 408, 78.16%) belonged to the lower evidence scales of LOE IV and LOE V. The category with the lowest number of articles was LOE III, with only 12 articles (2.30%). High-quality evidence (LOE I and II) constituted approximately one-fifth (n = 102; 19.54%) of the articles. The results of this study are consistent with the findings of a previous study, in which 18.87% of dental articles belonged to LOE I and II (Rajeh and Khayat, 2021). The results also indicated that cross-sectional and laboratory/animal studies were found most frequently, with 128 (28.35%) articles each, followed by literature reviews (8.62%), and case reports (8.05%). MAs, SRs, and RCTs accounted for 5.56%. A study on dental research in Saudi Arabia from 2000 to 2020 confirmed that approximately 65% of articles were classified as cross-sectional studies, and 9.63% were LOE I articles (Rajeh and Khayat, 2021). Although the study on the SEJ did not assess LOE, analysis of the study design reported that 40% of the articles were laboratory studies, followed by case reports (33.2%), and only three articles were SRs or MAs (Alfadley et al., 2021). The low prevalence of LOE I studies is not only found in dentistry in Saudi Arabia, but also in other

medical specialties, such as abdominal surgery and orthopedics (Maghrabi et al., 2017; Makhdom et al., 2013).

The articles were divided into eight broad dental specialties and miscellaneous. The miscellaneous category had the highest number of articles (40.23%). Apart from the miscellaneous articles, most articles with LOE I were found in periodontics, followed by endodontics and OMFS. Meng et al. analyzed LOE in 768 clinical studies published in five leading periodontal journals; 10.4% of the articles were classified as LOE I (Meng et al., 2020). In the present study, periodontics had the highest percentage (27%) of LOE I articles. A study in two leading endodontic journals reported that 83.6% of studies were categorized as non-evident. Among the remaining 222 studies, 26.12% were classified as LOE I with an overall ratio of 4.3% (Shafiei and Shahravan, 2013). A study in a leading orthodontic journal reported that one-fourth (26%) of the articles were related to LOE I and II (Chen et al., 2019). Our investigation confirmed this trend, with approximately one-fourth of the SDJ articles on orthodontics being related to LOE I and LOE II.

The percentage of non-clinical studies was higher (55.17%) than that of clinical studies (44.83%); however, clinical studies had a higher ratio of LOE I and LOE II articles. A survey of endodontics journals reported that of 1,357 articles, only 5.2% were found with high-quality evidence (Shafiei and Shahravan, 2013). Another study on dental research in Saudi Arabia reported that 21.51% of 7,237 articles were considered to investigate LOE (Rajeh and Khayat, 2021).

This study had some limitations. First, the study was limited to articles published in the SDJ between 2012 and 2021, and future research should cover previous volumes. Second, non-clinical studies were included in the assessment. Future studies should focus on clinical studies. Third, Google Scholar was used for citation metrics; this database inflates citations using the self-citations of authors and journals. Future studies could exclude self-citations in other databases, such as Scopus and Web of Science. Furthermore, the study did not highlight the most productive institutions or authors that produced higher LOEs.

5. Conclusion

This study confirms the continued growth and development of the SDJ as a resource for dental research. Articles from 40 countries across all dental specialties and LOEs were published by the SDJ. However, there is a relative lack of high-LOE research, generally in Saudi Arabia, particularly in the SDJ. These findings support decision-makers in revisiting dental research priorities and resource allocations. Various societies such as the Saudi Dental Society can play a significant role in upgrading the content of the SDJ by encouraging both new and experienced dentists to conduct high-evidence research. Consequently, this would enhance the impact and ranking of the SDJ as an essential source for research in dentistry.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgement

The authors would like to thank Dr. Lubna Al-Nasser for her assistance with the statistical analysis.

References

Ahmad, P., Elgamal, H.A.M., 2020. Citation Classics in the Journal of Endodontics and a Comparative Bibliometric Analysis with the Most Downloaded Articles in 2017 and 2018. J. Endod. 46, 1042–1051.

Alfadley, A., Haq, I.U., Jamleh, A., Alfouzan, K., Al-Nazhan, S., 2021. A bibliometric analysis of articles published in the Saudi Endodontic Journal. Saudi Endod J. 11, 327–333.

Amiri, A.R., Kanesalingam, K., Cro, S., Casey, A.T., 2013. Level of evidence of clinical spinal research and its correlation with journal impact factor. Spine J. 13, 1148–1153.

Chaudhry, K., Bali, R.K., Kaur, A., Tiwari, R.V.C., Patnana, A.K., 2021. Level of Evidence Analysis in Journal of Maxillofacial Oral Surgery: A Twelve-Year Bibliometric Analysis of 1300 Publications (2009–2020). J Maxillofac Oral Surg. 20, 364–372.

Chen, Y., Hua, F., Mei, Y., Thiruvenkatachari, B., Riley, P., He, H., 2019. The Characteristics and Level of Evidence of Clinical Studies Published in 5 Leading Orthodontic Journals. J. Evid. Based Dent. Pract. 19, 273–282.

Cheng, K.L., Dodson, T.B., Egbert, M.A., Susarla, S.M., 2017. Which Factors Affect Citation Rates in the Oral and Maxillofacial Surgery Literature? J. Oral Maxillofac. Surg. 75, 1313–1318.

Fardi, A., Kodonas, K., Gogos, C., Economides, N., 2011. Top-cited articles in endodontic journals. J. Endod. 37, 1183–1190.

Fardi, A., Kodonas, K., Lillis, T., Veis, A., 2017. Top-Cited Articles in Implant Dentistry. Int. J. Oral Maxillofac. Implants 32, 555–564.

Feijoo, J.F., Limeres, J., Fernández-Varela, M., Ramos, I., Diz, P., 2014. The 100 most cited articles in dentistry. Clin. Oral Invest. 18, 699–706.

Haq, I.U., Al-Fouzan, S., Al-Fouzan, R., Nadeem, M., Latif, A., 2019. Bibliometric Appraisal on Dental Research at Kingdom of Saudi Arabia from 1998–2017. Libr. Philos. Pract. 2518, 1–16.

Haq, I.U., Al-Fouzan, K., 2019. Research in Dentistry at Saudi Arabia: Analysis of Citation Impact. Libr. Philos. Pract. 2765, 1–13.

Howick, J.C.I., Glasziou, P., Greenhalgh, T., Heneghan, C., Liberati, A., Moschetti, I., Phillips, B., Thornton, H., 2011. The 2011 Oxford CEBM Evidence Levels of Evidence (Introductory Document). Oxford Centre for Evidence-Based Medicine.

Hui, J., Han, Z., Geng, G., Yan, W., Shao, P., 2013. The 100 top-cited articles in orthodontics from 1975 to 2011. Angle Orthod. 83, 491–499.

Journal Citation Reports™, 2023. Available: https://clarivate.com/wp-content/uploads/dlm_uploads/2022/06/JCR-2022-Reference-Guide.pdf [Accessed 21/02/2023].

Maghrabi, Y., Baeesa, M., Kattan, J., Altaf, A., Baeesa, S.S., 2017. Level of evidence of abdominal surgery clinical research in Saudi Arabia. Saudi Med. J. 38, 788–793.

Makhdom, A.M., Alqahtani, S.M., Alsheikh, K.A., Samargandi, O. A., Saran, N., 2013. Level of evidence of clinical orthopedic surgery research in Saudi Arabia. Saudi Med. J. 34, 395–400.

Meng, Z., Xiang, Q., Wu, X., Hua, F., Dong, W., Tu, Y.K., 2020. The level of evidence, scientific impact and social impact of clinical studies in periodontology: A methodological study. J. Clin. Periodontol. 47, 902–911.

Nabil, S., Samman, N., 2021. Levels of evidence and journal impact factor in oral and maxillofacial surgery: a 15-year follow-up. Int. J. Oral Maxillofac. Surg. 50, 1394–1399.

OCEBM Levels of Evidence, 2023. Available: https://www.cebm.ox.ac.uk/resources/levels-of-evidence/ocebm-levels-of-evidence. [Accessed 15/02/2023].

Rajeh, M., Khayat, W., 2021. Level of Evidence of Dental Research in Saudi Arabia (2000–2020). Int J Dent. 2021, 3463434.

Saudi Dental Journal, 2023. Available: https://www.journals.elsevier.com/saudi-dental-journal [Accessed 20/02/2023].

Scimago Journal & Country Rank, 2023. Available: https://www.scimagojr.com/journalsearch.php?q=19400158380&tip=sid&clean=0 [Accessed 18/02/2023].

Shafiei, L., Shahravan, A., 2013. The level of evidence in two leading endodontic journals. Iran Endod J. 8, 18–21.

Suhaym, O., Houle, A., Griebel, A., Miloro, M., Callahan, N., 2021. The Quality of the Evidence in Craniomaxillofacial Trauma: Are We Making Progress? J. Oral Maxillofac. Surg. 79, 893.e1-.e7.

Susarla, S.M., Mundinger, G.S., Swanson, E.W., Basile, L.E., Redett, R.J., Dodson, T.B., 2015. What Is the Quality of the Evidence in the Craniomaxillofacial Surgery Literature? J. Oral Maxillofac. Surg. 73, 2017–2023.

Wu, X., Hu, Q., Yan, Q., Zhang, T., Riley, P., Shi, B., Tu, Y.-K., 2020. Trends in the level of evidence and impact of clinical studies published in leading oral implantology journals: 2008–2018. Clin. Oral Implant Res. 31, 980–991.