

## Navigating digital parenting: a bibliometric exploration of trends on children's digital soothing practices

Rita Wong Mee Mee<sup>1</sup>, Noor Hanim Harun<sup>2</sup>, Lim Seong Pek<sup>3</sup>, Suzulaikha Mohamed<sup>2</sup>,  
Tengku Shahrom Tengku Shahdan<sup>4</sup>, Nurul Asyiqin Jalil<sup>2</sup>, Anisa Ahmad<sup>5</sup>, Tirzah Zubeidah Zachariah<sup>2</sup>

<sup>1</sup>Centre for Language, National Defence University of Malaysia, Kuala Lumpur, Malaysia

<sup>2</sup>Faculty of Education and Social Sciences, Universiti Selangor, Selangor, Malaysia

<sup>3</sup>Faculty of Education and Liberal Arts, INTI International University, Negeri Sembilan, Malaysia

<sup>4</sup>School of Education and Human Sciences, Albukhary International University, Kedah, Malaysia

<sup>5</sup>Association of Registered Childcare Providers Malaysia (PPBM), Selangor, Malaysia

### Article Info

#### Article history:

Received Dec 15, 2024

Revised May 2, 2026

Accepted May 17, 2026

#### Keywords:

Behavior management

Digital gadgets

Digital parenting

Screen time

Soothing habit

### ABSTRACT

The digital age has transformed parenting practices, with an increasing reliance on digital devices for managing children's behavior, particularly as calming tools. This study addresses the growing phenomenon of digital parenting, highlighting its implications on child development and family dynamics. Despite the benefits of digital media, concerns persist regarding its overuse for emotional regulation, which may impede children's self-regulation skills and parent-child interactions. This study aims to explore the evolution of research on digital parenting using bibliometric analysis. A comprehensive dataset was extracted from the Scopus database, focusing on publications from 2020 to 2024 within the Social Sciences domain. The inclusion criteria included peer-reviewed, open-access articles written in English. A systematic methodology ensured the analysis of performance metrics, trends, and co-authorship patterns. Results indicate a significant increase in scholarly attention to digital parenting, with 837 articles meeting the inclusion criteria. Leading contributions emerged from journals such as Sustainability Switzerland and Education Sciences, with prolific authors and institutions from the United Kingdom and the United States dominating the field. The analysis underscores the interdisciplinary nature of the topic, reflecting contributions from education, media studies, and child development. This study offers valuable theoretical insights and practical recommendations, emphasizing balanced digital media use and informed parenting strategies to foster healthier family dynamics.

This is an open access article under the [CC BY-SA](#) license.



### Corresponding Author:

Noor Hanim Harun

Faculty of Education and Social Sciences, Universiti Selangor

Timur Tambahan street, 45600, Bestari Jaya, Selangor, Malaysia

Email: noorhanim@unisel.edu.my

## 1. INTRODUCTION

Technology has become integral to our everyday life in the digital age. Like many others, parents have become increasingly dependent on digital gadgets for various uses, including entertainment and communication [1]. Smartphones, tablets, and streaming services have become essentials for modern families rather than extravagances. Among its many applications, one noteworthy trend is using digital gadgets as instruments for behavior management, significantly to calm and soothe kids when upset [2], [3]. This approach, often aligned with "digital parenting," involves practices parents employ to manage and guide their children's interactions with digital media and online spaces [4], [5]. The pressures of contemporary living,

which diminish parents' time and energy to meet their kids' emotional needs through conventional means, have further fueled this reliance. However, there are significant concerns regarding the long-term effects of increasing reliance on technology for emotional regulation of family dynamics and child development [6].

Parenting styles in Malaysia have been significantly impacted by the pervasiveness of digital devices in daily life [7]. According to a 2023 survey, three out of four Malaysian children spent one to six hours a day online during the COVID-19 pandemic, while 70% of parents increased their kids' screen usage. This pattern highlights the increasing use of digital gadgets as entertainment and behavior management aids for kids. While acknowledging the educational benefits of digital media [4], [8], parents are also concerned about potential hazards, including exposure to inappropriate content, physical strain, and concentration impairments [9]. These issues underscore the challenges parents face in balancing the benefits of digital tools for their children's growth with the associated risks. Although digital gadgets offer a practical way to control kids' emotions, there are drawbacks to this strategy. Studies indicate that children's ability to learn self-regulation may be hindered by the overuse of digital gadgets for emotional soothing [10], [11]. Children may grow reliant on external stimuli for comfort rather than learning to understand and manage their emotions. This dependence could eventually impede their development of emotional resilience, making it harder for them to handle stress, worry, and frustration [12]. Furthermore, excessive usage of digital devices during parenting may unintentionally affect the quality of parent-child interactions. Parents who routinely use screens to calm their kids may miss out on opportunities for meaningful conversations that foster emotional connection and understanding. This issue is compounded by "technoference," where digital gadgets interfere with face-to-face interactions, potentially affecting children's sense of security and attachment [10], [11].

The impacts of this practice extend beyond relational and emotional domains. Early childhood screen time has been linked to negative behavioral and cognitive outcomes, such as impulsivity and reduced attention spans [13], [14]. These challenges underscore the need for a balanced approach to digital parenting that considers both immediate benefits and long-term consequences. As digital parenting reflects broader societal shifts in family interactions and adaptation to technological advancements, it is imperative to study this phenomenon in depth [15]. This study explores the effects of increased reliance on digital gadgets as calming aids on children's development and family dynamics. By conducting a bibliometric analysis, this study provides a comprehensive review of existing literature, identifies significant trends, and highlights knowledge gaps that warrant further research.

## 2. RESEARCH METHOD

Bibliometric analysis is a quantitative research method that examines academic publications to identify patterns, effects, and trends in a field [16]. The productivity of authors, institutions, and countries can be examined to show significant themes and research trends. The connections between studies can then be investigated through citation analysis [17]. One effective way to summarize the corpus of current literature, identify research gaps, and guide future studies is through this bibliometric analysis [18]. It is important as it can provide data-driven insights into how academic disciplines have changed and progressed [19]. The Scopus database served as the main source of information for this study. In addition to indexing peer-reviewed literature in numerous categories, Scopus is a reliable and extensive database that provides many citation details and metadata. Its breadth of credible academic journals and easy-to-use interface make it the ideal platform for bibliometric analysis [20].

To maintain the calibre and applicability of the reviewed publications, a systematic inclusion and exclusion criteria procedure was developed [21]. Articles published between 2020 and 2024 that represented the most current research and developments were considered. Only peer-reviewed publications were selected to limit the scope. Open-access publications were selected to ensure the findings were readable and replicable. Also, since English is the most common language in academic publishing, the analysis was restricted to articles authored. Additionally, in keeping with its topic approach, the analysis concentrated on social science papers [22]. The data collection process included a carefully considered search strategy that used Scopus' advanced search capabilities. Keywords and Boolean operators were used to find relevant articles within the specified parameters. After being retrieved, the dataset was cleaned by removing duplicate entries and confirming the accuracy of the metadata. The cleaned dataset contained important bibliographic information such as authors, titles, abstracts, keywords, publication years, journal names, citation counts, and affiliations [23].

The investigation began with assessing the performance of publications, authors, institutions, and countries. Metrics such as the h-index, the quantity of publications, and the number of citations were used to gauge productivity and influence. By examining trends based on the distribution of publications and keywords across time, insights were gained regarding the development and focus of the subject field during the selected period [24]. All analyses and conclusions were based solely on data from the Scopus database to maintain methodological consistency [25].

### 3. RESULTS AND DISCUSSION

The bibliometric analysis on digital parenting adhered to a systematic and methodologically robust process to ensure the inclusion of high-quality and relevant literature. Utilizing the Scopus database, the study initially identified a total of 10,443 records by employing the search field TITLE-ABS-KEY with the keywords “digital” and “parent\*.” This comprehensive approach aimed to encompass a wide range of academic studies pertinent to the subject of digital parenting, as shown in Table 1.

Table 1. Inclusion criteria for bibliometric analysis

| Scopus database | All                     |
|-----------------|-------------------------|
| Time period     | 2020 to 2024            |
| Search field    | TITLE-ABS-KEY           |
| Search keywords | “digital” and “parent*” |
| Subject area    | Social Sciences         |
| Document type   | Article                 |
| Language        | English                 |

The inclusion criteria were meticulously defined to enhance the focus and relevance of the analysis. Articles were limited to those published between 2020 and 2024 to ensure the research reflected the most recent developments within the field. The scope was further refined by restricting the selection to articles within the Social Sciences domain, available in English, and categorized as open-access publications. The emphasis on open-access material was intended to promote accessibility and reproducibility of findings.

The initial screening phase in Figure 1 involved filtering 5,750 records based on document types, during which 4,693 records were excluded as they did not fall within the designated publication period of 2020 to 2024. Subsequently, an additional 4,134 records were removed from consideration as they were not classified under the Social Sciences domain or did not meet the criteria for document type as articles. In the eligibility phase, a detailed assessment of 1,616 full-text articles was conducted to ascertain compliance with all inclusion criteria. During this stage, 779 articles were excluded for failing to meet language and access requirements, specifically for not being written in English or not being available as open-access publications. as a result, the final dataset comprised 837 articles that satisfied all specified criteria.

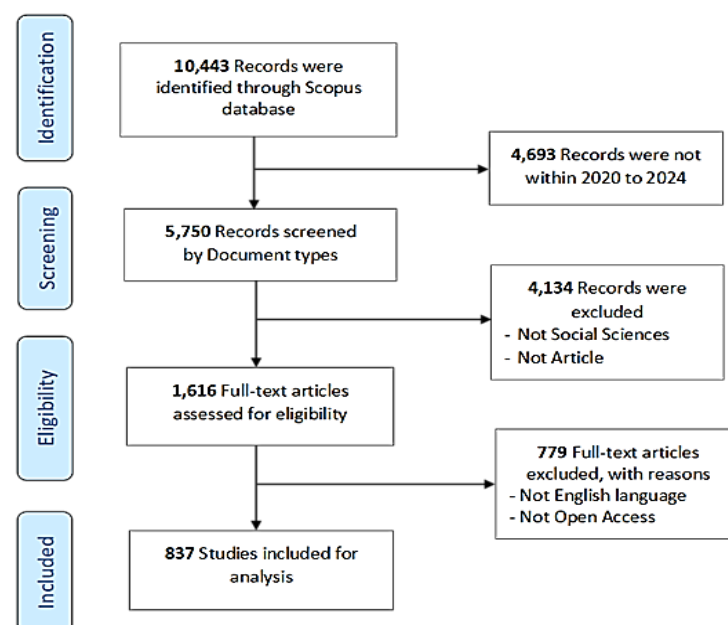


Figure 1. Prisma flowchart

The systematic and structured methodology employed in this bibliometric analysis ensured the inclusion of a focused corpus of studies aligned closely with the research objectives. The application of clearly defined inclusion and exclusion criteria, combined with the use of the PRISMA flowchart, provided transparency and rigor to the selection process. By adhering to these stringent methodological standards, the

study offers a comprehensive and credible examination of the literature on digital parenting within the social sciences domain, contributing meaningful insights into the field.

### 3.1. Performance analysis

The performance analysis of research on digital parenting in children's digital soothing underscores the rapid growth and interdisciplinary interest in this domain. The steady increase in publications, the diversity of contributing journals, and the active participation of leading scholars and institutions highlight its academic and practical significance [26]. Studies emphasize the evolving dynamics of parent-child relationships in the digital era and the critical role of parental guidance in mitigating risks and promoting positive outcomes [27]. Recent findings underline the necessity of tailored interventions and parental strategies for fostering balanced digital engagement among children [28]. The analysis reveals the growing scholarly attention to this domain, highlighting its significance and interdisciplinary nature [29].

#### 3.1.1. Top ten most cited works

The bibliometric analysis of digital parenting and children's digital soothing reveals significant contributions from research conducted during the COVID-19 pandemic. A notable theme is the shift in parenting roles and educational practices influenced by digital technology, as captured by highly cited works in Table 2. For instance, Daniel [30] exploration of education during the pandemic (1126 citations) underscores the overarching impact of digital tools on education. Similarly, Ferri *et al.* [31] (620 citations) and Iivari *et al.* [32] (580 citations) emphasize the transformation of educational environments and the challenges of digital integration during emergencies, shedding light on how parents adapted to support children's remote learning.

Table 2. Top ten most cited works

| Author                      | Title                                                                                                                                                                        | No. of citations |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Daniel [30]                 | Education and the COVID-19 pandemic                                                                                                                                          | 1126             |
| Ferri <i>et al.</i> [31]    | Online learning and emergency remote teaching: opportunities and challenges in emergency situations                                                                          | 620              |
| Iivari <i>et al.</i> [32]   | Digital transformation of everyday life – How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care? | 580              |
| Azubuike <i>et al.</i> [33] | Who gets to learn in a pandemic? Exploring the digital divide in remote learning during the COVID-19 pandemic in Nigeria                                                     | 151              |
| Jæger and Blaabæk [34]      | Inequality in learning opportunities during COVID-19: evidence from library takeout                                                                                          | 149              |
| Misirli and Ergulec [35]    | Emergency remote teaching during the COVID-19 pandemic: parents experiences and perspectives                                                                                 | 117              |
| Greenhow <i>et al.</i> [36] | The educational response to COVID-19 across two countries: a critical examination of initial digital pedagogy adoption                                                       | 102              |
| Lie <i>et al.</i> [37]      | Secondary school language teachers' online learning engagement during the COVID-19 Pandemic in Indonesia                                                                     | 97               |
| Moorhouse and Wong [38]     | Blending asynchronous and synchronous digital technologies and instructional approaches to facilitate remote learning                                                        | 94               |
| Domoff <i>et al.</i> [39]   | Interactional theory of childhood problematic media use                                                                                                                      | 77               |

Additionally, studies like Azubuike *et al.* [33] (151 citations) and Jæger and Blaabæk [34] (149 citations) highlight socio-economic disparities with a focus on the digital divide's influence on learning opportunities. Parental experiences and strategies are directly reflected in Misirli and Ergulec [35] study (117 citations), which examines parents' perspectives on emergency remote teaching. This aligns with digital soothing behaviors where parents use digital tools not only for education but also to calm or entertain children during stressful times. Lower citation counts in works like Domoff *et al.* [39] (77 citations) focus on problematic media use in childhood, providing a cautionary perspective on excessive reliance on digital tools. Together, these studies illustrate a spectrum of issues—from the empowering potential of digital parenting in education to concerns about dependency and inequality in digital access.

#### 3.1.2. Documents analysis

The number of publications as shown in Figure 2 on digital parenting and children's digital soothing has steadily increased over the past five years, reflecting its rising relevance in academic and societal discourse. The publication count rose from 89 articles in 2020 to 136 in 2021, followed by a notable spike to 167 in 2022. The trend continued with 228 articles published in 2023 and 217 projected for 2024.

This progression underscores the increasing scholarly interest and the growing need to explore the implications of digital parenting practices in contemporary society.

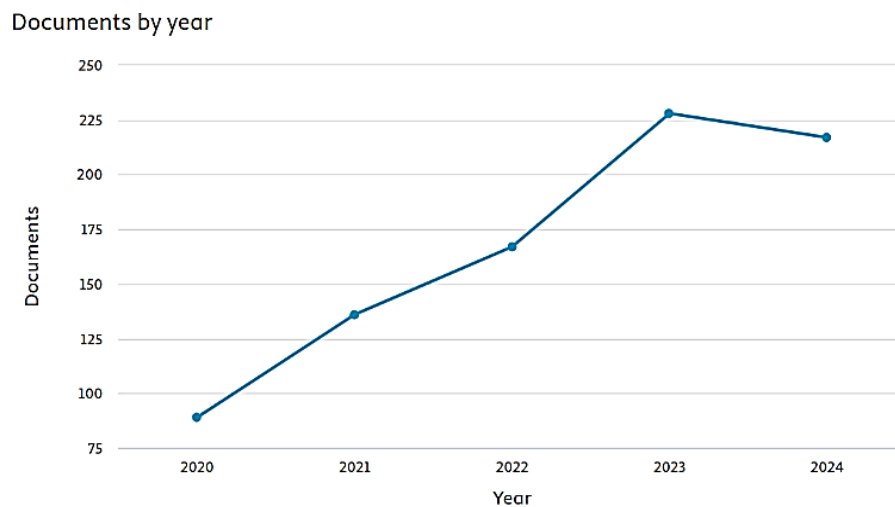


Figure 2. Documents analysis

### 3.1.3. Sources analysis

The distribution of publications as shown in Figure 3 across journals underscores the multidisciplinary nature of the topic. Leading sources include Sustainability Switzerland (26 articles), Education Sciences (25 articles), and Education and Information Technologies (20 articles). Other prominent journals, such as Frontiers in Education and Journal of Children and Media, contributed 15 and 13 articles, respectively. The inclusion of journals like Media and Communication and Early Childhood Education Journal indicates the intersection of media studies, education, and child development within this research area. The breadth of sources highlights the diverse academic communities examining digital parenting.

### Documents per year by source

Compare the document counts for up to 10 sources.

Compare sources and view CiteScore, SJR, and SNIP data

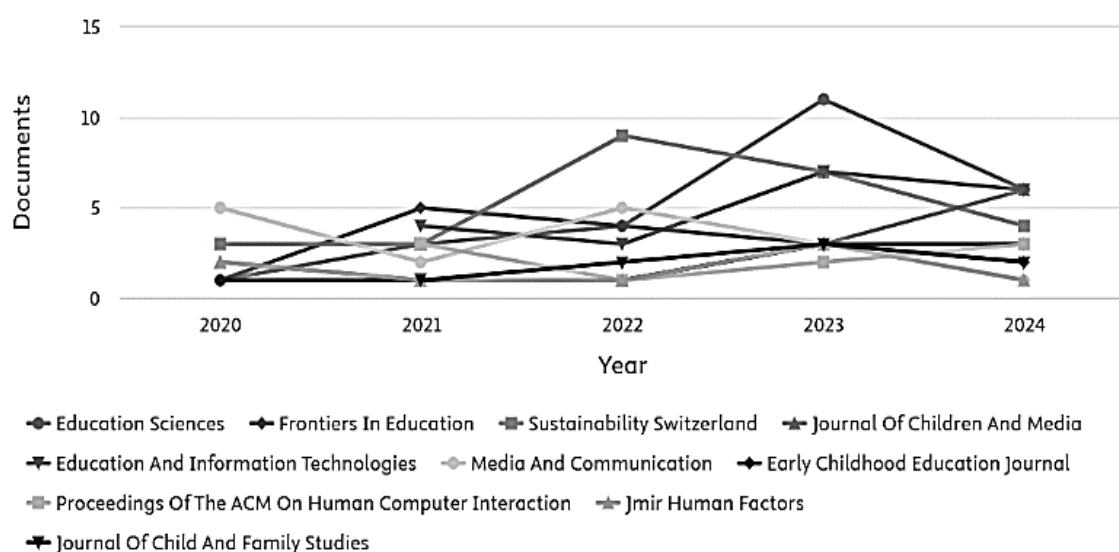


Figure 3. Sources analysis

### 3.1.4. Authors analysis

The performance analysis identifies several influential authors as shown in Figure 4 in the field. Kucirkova, N. emerged as the most prolific, with seven publications, followed by Lavorgna, A., Tartari, M., and Ugwuđike, P., each contributing six articles. Other notable scholars include Livingstone, S. and Mascheroni, G., with five publications. The prominence of these authors suggests their central role in shaping the discourse on digital parenting and its impact on children.

#### Documents by author

Compare the document counts for up to 15 authors.

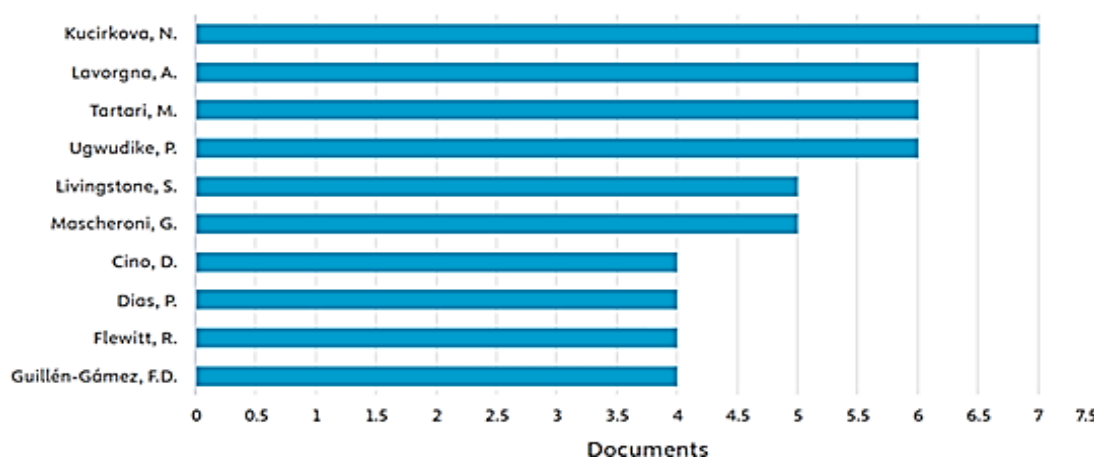


Figure 4. Author analysis

### 3.1.5. Institutional analysis

Institutional analysis as shown in Figure 5 reveals significant contributions from globally recognized universities. Universiteit van Amsterdam, University of Southampton, and UNSW Sydney each contributed 11 publications, demonstrating their leadership in this area. Other institutions, such as Universitetet i Stavanger, University College London, and University of Melbourne, each contributed 10 publications, reflecting their strong research engagement. This distribution underscores the collaborative and international nature of research in digital parenting.

#### Documents by affiliation

Compare the document counts for up to 15 affiliations.

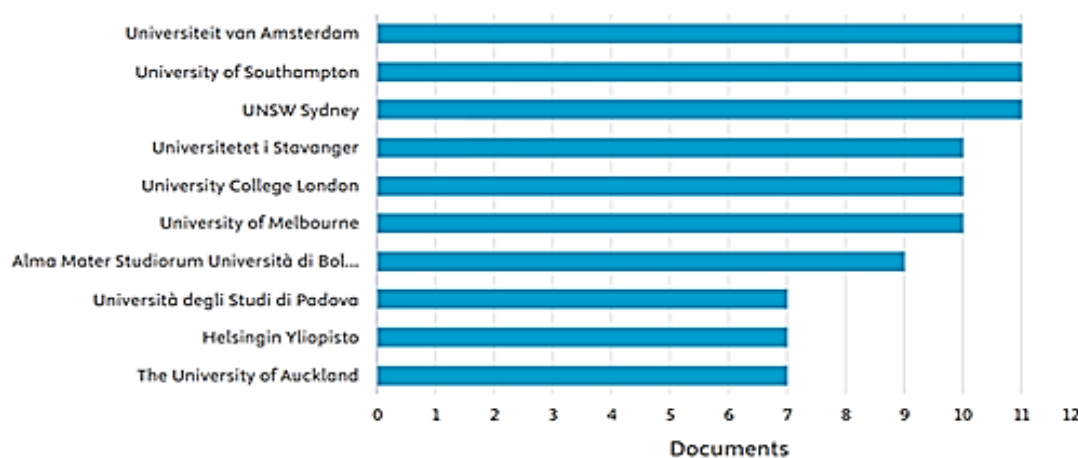


Figure 5. Institutional analysis

### 3.1.6. Geographical analysis

The geographic analysis as shown in Figure 6 highlights the United Kingdom (134 publications) and the United States (121 publications) as leading contributors, reflecting their advanced research infrastructure and focus on digital media's societal implications. Other countries with significant contributions include Australia (62 publications), Spain (47), and Norway (36). Emerging contributors such as Indonesia (34) and China (30) underscore the growing global awareness of the digital parenting phenomenon.

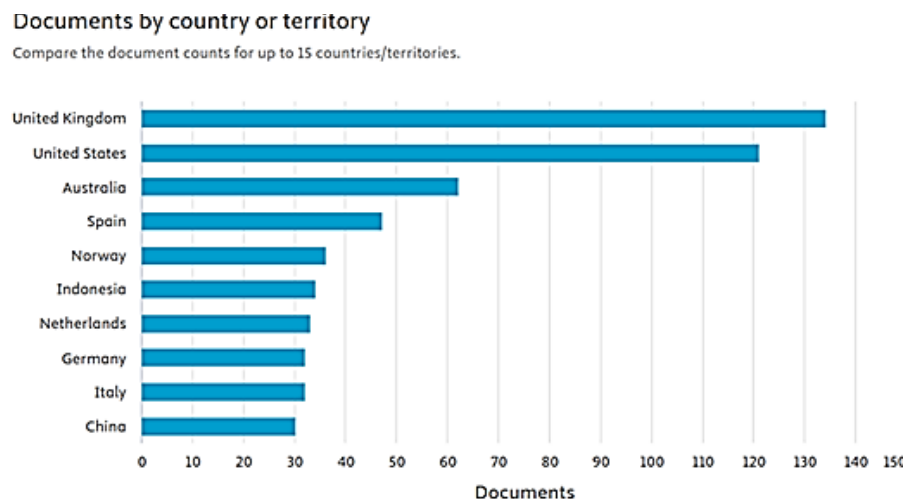


Figure 6. Geographic analysis

### 3.2. Implications

The theoretical contributions deepen the understanding of digital parenting dynamics. At the same time, the practical applications provide a roadmap for parents, educators, and institutions to navigate the complexities of parenting in a digital age. By addressing both theoretical and practical dimensions, the research on digital parenting has the potential to significantly influence how families adapt to and thrive in the rapidly evolving technological landscape [26].

The steady increase in publications on digital parenting reflects its emergence as a critical area of inquiry within the social sciences. The findings from this body of work contribute to a more nuanced understanding of how digital technologies influence parenting practices and child development, particularly in the context of emotional regulation through digital soothing [27], [40]. Theoretical advancements in this area can shape frameworks that explore the intersection of technology, parenting behaviors, and child outcomes [41]. The diversity of journals and subject areas contributing to this research underscores the interdisciplinary nature of the field. Insights from education, media studies, psychology, and child development converge to create a holistic view of the digital parenting phenomenon [42]. Theoretical models integrating perspectives from these disciplines can help explain complex phenomena, such as the role of digital tools in shaping parent-child relationships and their socio-emotional dynamics [29], [43].

The findings from these studies offer actionable insights for parents navigating the use of digital tools in managing children's behavior. They underscore the need for balanced approaches, emphasizing the importance of combining digital soothing with traditional parenting strategies to foster children's emotional regulation and self-soothing skills [44], [45]. The contributions from journals like *Education Sciences* and *Early Childhood Education Journal* highlight the potential for integrating digital literacy into parenting programs [46]. Educators and policymakers can design interventions that equip parents with the knowledge and skills to use digital tools responsibly and effectively while minimizing potential adverse effects on child development [47]. The active involvement of researchers from institutions like UNSW Sydney and University College London suggests a growing focus on human-computer interaction in parenting contexts. Developers of digital applications and platforms can draw from these studies to create tools that support positive parenting practices [48], such as apps promoting educational engagement, family communication, and healthy screen time habits [49]. The global distribution of research demonstrates opportunities for international collaboration in addressing the challenges of digital parenting. Institutions and governments can work together to share best practices, promote evidence-based parenting programs, and address the societal implications of digital technologies in diverse cultural contexts [50].

4. CONCLUSION

This bibliometric analysis provides a comprehensive overview of research trends, contributions, and implications in digital parenting, particularly regarding children’s digital soothing. The analysis reveals a consistent growth in scholarly attention to this domain, with a notable increase in publications from 2020 to 2024. This upward trend reflects the increasing recognition of digital parenting as a significant area of inquiry in the social sciences, highlighting its interdisciplinary appeal across education, media studies, psychology, and child development.

The findings underscore the central role of leading journals, prolific authors, and prominent institutions in shaping the discourse on digital parenting. The contributions from sources like Sustainability Switzerland and Education Sciences demonstrate the diverse contexts in which this topic is explored. At the same time, the active participation of key authors and global institutions signifies the collaborative and international nature of research in this area. The geographic distribution of studies, with leading contributions from the United Kingdom, the United States, and Australia, points to the global relevance of digital parenting practices. However, emerging contributions from countries like Indonesia and China highlight the growing awareness of these issues worldwide.

Comparative cross-cultural studies may shed light on how various societies modify digital parenting techniques in response to changes in technology and cultural norms. The long-term effects of digital calming on kids’ emotional development should be investigated in future research, taking sociocultural background, age, and gender into account. Qualitative research is also required to document parents’ coping mechanisms and lived experiences with digital media use.

In conclusion, this bibliometric analysis affirms the critical importance of understanding digital parenting practices in an increasingly technology-driven world. A rigorous and systematic examination of the literature contributes to developing evidence-based strategies to guide families, institutions, and policymakers toward fostering healthier, more constructive digital environments for children.

ACKNOWLEDGEMENTS

We would like to thank the Malaysian Ministry of Higher Education for funding this study under the Fundamental Research Grant Scheme (FRGS Nos. FRGS/1/2023/SSI07/UNISEL/03/3). This work was supported by Universiti Selangor (UNISEL) and the Association of Registered Childcare Providers Malaysia (PPBM) as our Industrial Partner.

FUNDING INFORMATION

Authors state no funding involved.

AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

| Name of Author      | C | M | So | Va | Fo | I | R | D | O | E | Vi | Su | P | Fu |
|---------------------|---|---|----|----|----|---|---|---|---|---|----|----|---|----|
| Rita Wong Mee Mee   | ✓ | ✓ | ✓  |    | ✓  |   |   | ✓ | ✓ |   |    |    | ✓ | ✓  |
| Noor Hanim Harun    |   | ✓ |    | ✓  |    | ✓ |   | ✓ |   | ✓ | ✓  |    |   |    |
| Lim Seong Pek       | ✓ |   | ✓  |    |    | ✓ |   |   | ✓ |   | ✓  | ✓  | ✓ |    |
| Suzulaikha Mohamed  | ✓ |   | ✓  |    |    | ✓ |   |   | ✓ |   | ✓  |    | ✓ |    |
| Tengku Shahrom      | ✓ |   |    | ✓  | ✓  |   | ✓ |   |   | ✓ |    |    |   |    |
| Tengku Shahdan      |   |   |    |    |    |   |   |   |   |   |    |    |   |    |
| Nurul Asyiqin Jalil | ✓ |   |    | ✓  | ✓  |   | ✓ |   |   | ✓ | ✓  |    |   |    |
| Anisa Ahmad         |   | ✓ | ✓  |    |    | ✓ |   | ✓ |   | ✓ |    | ✓  | ✓ |    |
| Tirzah Zubeidah     |   | ✓ |    | ✓  |    | ✓ |   |   |   | ✓ | ✓  |    |   |    |
| Zachariah           |   |   |    |    |    |   |   |   |   |   |    |    |   |    |

|                       |                                |                            |
|-----------------------|--------------------------------|----------------------------|
| C : Conceptualization | I : Investigation              | Vi : Visualization         |
| M : Methodology       | R : Resources                  | Su : Supervision           |
| So : Software         | D : Data Curation              | P : Project administration |
| Va : Validation       | O : Writing - Original Draft   | Fu : Funding acquisition   |
| Fo : Formal analysis  | E : Writing - Review & Editing |                            |



## CONFLICT OF INTEREST STATEMENT

The authors state no conflict of interest.

## DATA AVAILABILITY

Data availability is not applicable to this paper as no new data were created or analyzed in this study.

## REFERENCES

- [1] Z. M. Zain, F. N. N. Jasmani, N. H. Haris, and S. M. Nurudin, "Gadgets and their impact on child development," *Proceedings*, vol. 82, no. 1, p. 6, 2022, doi: 10.3390/proceedings2022082006.
- [2] C. Chen, S. Chen, P. Wen, and C. E. Snow, "Are screen devices soothing children or soothing parents? Investigating the relationships among children's exposure to different types of screen media, parental efficacy and home literacy practices," *Computers in Human Behavior*, vol. 112, p. 106462, 2020, doi: 10.1016/j.chb.2020.106462.
- [3] V. Brauchli, F. Sticca, P. Edelsbrunner, A. von Wyl, and P. Lannen, "Are screen media the new pacifiers? The role of parenting stress and parental attitudes for children's screen time in early childhood," *Computers in Human Behavior*, vol. 152, p. 108057, 2024, doi: 10.1016/j.chb.2023.108057.
- [4] Y. N. Choy, E. Y. H. Lau, and D. Wu, "Digital parenting and its impact on early childhood development: a scoping review," *Education and Information Technologies*, pp. 1–41, 2024, doi: 10.1007/s10639-024-12643-w.
- [5] T. X. Tan, X. Jing, and W. Guan, "Young children's screen habits: identifying child and family contributors," *Computers in Human Behavior Reports*, vol. 10, p. 100284, 2023, doi: 10.1016/j.chbr.2023.100284.
- [6] V. S. Arya, S. Sreejith, and P. Rekha, "Exploring digital proficiency among mothers of school-going children in Kerala: a comprehensive analysis," *Journal of Telecommunications and the Digital Economy*, vol. 12, no. 3, pp. 186–212, 2024, doi: 10.3316/informat.T2024102400007791692236738.
- [7] N. N. Abdullah, S. Mohamed, K. Abu Bakar, and N. Satari, "The influence of sociodemographic factors on mobile device use among young children in Putrajaya, Malaysia," *Children (Basel, Switzerland)*, vol. 9, no. 2, p. 228, 2022, doi: 10.3390/children9020228.
- [8] Y. Syukur, A. H. Putra, Z. Ardi, T. N. Zahri, and J. E. Putri, "Global perspectives on digital parenting: challenges and opportunities in improving family well-being," in *E3S Web of Conferences*, vol. 568, p. 04014, EDP Sciences, 2024, doi: 10.1051/e3sconf/202456804014.
- [9] Y. B. Lev and N. Elias, "Digital parenting: Media uses in parenting routines during the first two years of life," *Studies in Media and Communication*, vol. 8, no. 2, pp. 41–48, 2020, doi: 10.11114/smc.v8i2.5050.
- [10] S. Amaudeau, C. Hofer, and M. Danet, "Parental technoference: a literature review of the links with parenting quality and the socio-emotional development of young children (in French)," *Canadian Psychology/Psychologie Canadienne*, 2024, doi: 10.1037/cap0000380.
- [11] E. Gillioz, E. Gentaz, and F. Lejeune, "The effect of screen habits and alternative activities on tactile exploration skills in 6- to 36-month-old toddlers," *Children*, vol. 11, no. 8, p. 1027, 2024, doi: 10.3390/children11081027.
- [12] R. L. Gerwin, K. Kaliebe, and M. Daigle, "The interplay between digital media use and development," *Child and Adolescent Psychiatric Clinics*, vol. 27, no. 2, pp. 345–355, 2018, doi: 10.1016/j.chc.2017.11.002.
- [13] S. Sadeghi, H. Pouretmad, R. Khosrowabadi, J. Fathabadi, and S. Nikbakht, "Behavioral and electrophysiological evidence for parent training in young children with autism symptoms and excessive screen-time," *Asian Journal of Psychiatry*, vol. 45, pp. 7–12, 2019, doi: 10.1016/j.ajp.2019.08.003.
- [14] S. K. Muppalla, S. Vuppapapati, A. R. Pulliahgaru, and H. Sreenivasulu, "Effects of excessive screen time on child development: An updated review and strategies for management," *Cureus*, vol. 15, no. 6, p. e40608, 2023, doi: 10.7759/cureus.40608.
- [15] N. K. Fidan and B. Olur, "Examining the relationship between parents' digital parenting self-efficacy and digital parenting attitudes," *Education and Information Technologies*, vol. 28, no. 11, pp. 15189–15204, 2023, doi: 10.1007/s10639-023-11841-2.
- [16] S. Devi, R. Thinakaran, S. B. M. Hanefar, and N. R. M. Nadzri, "Tracking academic contributions to women's empowerment in Malaysia: A bibliometric investigation," *Heliyon*, vol. 10, no. 17, p. e37052, 2024, doi: 10.1016/j.heliyon.2024.e37052.
- [17] S. Ramadhan, S. Raharjo, O. Taufik, W. Kozin, A. Habibullah, A. Dudin, and E. Lisyawati, "Global research trend in digital learning: Analysis using Bibliometrix on the Scopus database," *Educational Administration: Theory and Practice*, 2024, doi: 10.53555/kuey.v30i4.814.
- [18] O. Öztürk, R. Kocaman, and D. K. Kanbach, "How to design bibliometric research: An overview and a framework proposal," *Review of Managerial Science*, vol. 18, pp. 3333–3361, 2024, doi: 10.1007/s11846-024-00738-0.
- [19] D. Husaeni and A. Nandiyanto, "Bibliometric using VoSviewer with publish or perish (using Google Scholar data): From step-by-step processing for users to the practical examples in the analysis of digital learning articles in pre and post COVID-19 pandemic," *ASEAN Journal of Science and Engineering*, 2021, doi: 10.17509/ajse.v21i1.37368.
- [20] S. Kumar and M. Rani, "Bibliometric analysis of sharenting: current status and inducing marketing strategies," *Vision: The Journal of Business Perspective*, 2024, doi: 10.1177/09722629241254953.
- [21] W. Wider, L. Jiang, J. Lin, M. A. Fauzi, J. Li, and C. K. Chan, "Metaverse chronicles: a bibliometric analysis of its evolving landscape," *International Journal of Human-Computer Interaction*, vol. 40, no. 17, pp. 4873–4886, 2023, doi: 10.1080/10447318.2023.2227825.
- [22] A. Ioseliani, N. Orekhovskaya, M. Svintsova, E. Panov, E. Skvortsova, and A. Bayanova, "Bibliometric analysis of articles on digital educational environments," *Contemporary Educational Technology*, 2023, doi: 10.30935/cedtech/13100.
- [23] S. Kadri, A. Kadri, I. Fantazi, and N. Afri, "The use of digital technology in university learning through a bibliometric approach," *International Journal of Innovative Technologies in Social Science*, 2024, doi: 10.31435/rsglobal\_ijitss/30062024/8132.

- [24] A. Taib, N. Nasir, and Y. Awang, "Digitalization and digital capabilities in business performance: a bibliometric analysis," *Advances in Social Sciences Research Journal*, 2024, doi: 10.14738/assrj.119.2.17397.
- [25] L. Chen, W. Zhen, and D. Peng, "Research on digital tool in cognitive assessment: a bibliometric analysis," *Frontiers in Psychiatry*, vol. 14, 2023, doi: 10.3389/fpsy.2023.1227261.
- [26] R. Rahimah, "Children's social-emotional relationship to digital parenting," *International Journal Reglement and Society (IJRS)*, vol. 2, no. 2, 2021, doi: 10.55357/ijrs.v2i2.136.
- [27] N. Jalil, L. Pek, S. Mohamed, N. Harun, R. Mee, and T. Shahdan, "The possible effects of digital media and parental screen soothing on children," *Quantum Journal of Social Sciences and Humanities*, 2024, doi: 10.55197/qjssh.v5i3.370.
- [28] N. Tosun and C. Mihci, "An examination of digital parenting behavior in parents with preschool children in the context of lifelong learning," *Sustainability*, vol. 12, p. 7654, 2020, doi: 10.3390/su12187654.
- [29] E. Küçükoba, "Digital parenting and digital childhood: Raising gifted children born into the digital age," *Journal of Interdisciplinary Education: Theory and Practice*, vol. 5, no. 1, pp. 1–10, 2023, doi: 10.47157/jietp.1178915.
- [30] S. J. Daniel, "Education and the COVID-19 pandemic," *Prospects*, vol. 49, pp. 91–96, 2020, doi: 10.1007/s11125-020-09464-3.
- [31] F. Ferri, P. Grifoni, and T. Guzzo, "Online learning and emergency remote teaching: opportunities and challenges in emergency situations," *Societies*, vol. 10, no. 4, p. 86, 2020, doi: 10.3390/soc10040086.
- [32] N. Iivari, S. Sharma, and L. Ventä-Olkkonen, "Digital transformation of everyday life – How has the COVID-19 pandemic transformed the basic education of the young generation, and why information management research should care?" *International Journal of Information Management*, vol. 55, p. 102183, 2020, doi: 10.1016/j.ijinfomgt.2020.102183.
- [33] O. B. Azubuike, O. Adegboye, and H. Quadri, "Who gets to learn in a pandemic? Exploring the digital divide in remote learning during the COVID-19 pandemic in Nigeria," *International Journal of Educational Research Open*, vol. 2, p. 100022, 2020, doi: 10.1016/j.ijedro.2020.100022.
- [34] M. M. Jæger and E. H. Blaabæk, "Inequality in learning opportunities during COVID-19: evidence from library takeout," *Research in Social Stratification and Mobility*, vol. 68, p. 100524, 2020, doi: 10.1016/j.rssm.2020.100524.
- [35] O. Misirli and F. Ergulec, "Emergency remote teaching during the COVID-19 pandemic: parents' experiences and perspectives," *Education and Information Technologies*, vol. 26, pp. 6699–6718, 2021, doi: 10.1007/s10639-021-10520-4.
- [36] C. Greenhow, C. Lewin, and K. B. Staudt Willet, "The educational response to COVID-19 across two countries: a critical examination of initial digital pedagogy adoption," *Technology, Pedagogy and Education*, vol. 30, no. 1, pp. 7–25, 2020, doi: 10.1080/1475939X.2020.1866654.
- [37] A. Lie, S. M. Tamah, I. Gozali, K. R. Triwidayati, T. S. D. Utami, and F. Jemadi, "Secondary school language teachers' online learning engagement during the COVID-19 pandemic in Indonesia," *Journal of Information Technology Education: Research*, vol. 19, pp. 803–832, 2020, doi: 10.28945/4626.
- [38] B. L. Moorhouse and K. M. Wong, "Blending asynchronous and synchronous digital technologies and instructional approaches to facilitate remote learning," *Journal of Computer Education*, vol. 9, pp. 51–70, 2022, doi: 10.1007/s40692-021-00195-8.
- [39] S. E. Domoff, A. L. Borgen, and J. S. Radesky, "Interactional theory of childhood problematic media use," *Human Behavior and Emerging Technologies*, vol. 2, no. 4, pp. 343–353, 2020, doi: 10.1002/hbe2.217.
- [40] R. W. M. Mee, N. H. Harun, L. S. Pek, S. Mohamed, T. S. T. Shahdan, and A. Ahmad, "The impact of screen time on children's well-being development: A scoping review," *International Journal of Public Health Science*, vol. 13, no. 3, pp. 1192–1200, 2024, doi: 10.11591/ijphs.v13i3.24100.
- [41] N. Soylemez, "Views of parents on digital parenting competencies," *International Journal on Social and Education Sciences*, 2023, doi: 10.46328/ijonses.500.
- [42] S. Nichols and N. Selim, "Digitally mediated parenting: A review of the literature," *Societies*, vol. 12, no. 2, 2022, doi: 10.3390/soc12020060.
- [43] V. Konok, N. Bunford, and A. Miklosi, "Associations between child mobile use and digital parenting style in Hungarian families," *Journal of Children and Media*, vol. 14, no. 1, pp. 91–109, 2020, doi: 10.1080/17482798.2019.1684332.
- [44] E. Altafim, R. De Oliveira, G. Pluciennik, E. Marino, and C. Gaspardo, "Digital parenting program: enhancing parenting and reducing child behavior problems," *Children*, vol. 11, 2024, doi: 10.3390/children11080980.
- [45] S. Reynard, J. Dias, M. Mitic, B. Schrank, and K. A. Woodcock, "Digital interventions for emotion regulation in children and early adolescents: Systematic review and meta-analysis," *JMIR Serious Games*, vol. 10, no. 3, p. e31456, 2022, doi: 10.2196/31456.
- [46] A. Konca, "Digital technology usage of young children: screen time and families," *Early Childhood Education Journal*, vol. 50, pp. 1097–1108, 2021, doi: 10.1007/s10643-021-01245-7.
- [47] A. Y. Lee and J. T. Hancock, "Developing digital resilience: an educational intervention improves elementary students' response to digital challenges," *Computers and Education Open*, vol. 5, p. 100144, 2023, doi: 10.1016/j.caeo.2023.100144.
- [48] O. A. David, I. A. Iuga, and I. S. Miron, "Parenting: there is an app for that. A systematic review of parenting interventions apps," *Children and Youth Services Review*, vol. 156, p. 107385, 2024, doi: 10.1016/j.childyouth.2023.107385.
- [49] Ö. Kumas and A. Yildirim, "Exploring digital parenting awareness, self-efficacy and attitudes in families with special needs children," *British Journal of Educational Technology*, vol. 55, pp. 2403–2418, 2024, doi: 10.1111/bjet.13457.
- [50] A. Fidan and S. S. Seferoğlu, "Digital parenting in the online environments: a review of problems and suggestions," *Bartın University Journal of Faculty of Education*, vol. 9, no. 2, pp. 352–372, 2020, doi: 10.14686/buefad.664141.

**BIOGRAPHIES OF AUTHORS**

**Rita Wong Mee Mee**     is a TESL lecturer at the Centre for Language at the National Defence University of Malaysia (NDUM). She received her Doctorate in Education (Ed.D.) degree from Universiti Selangor. She specialises in materials development, game-based learning, and early childhood literacy. She can be contacted at email: ritawong@upnm.edu.my.



**Noor Hanim Harun**     is a ECE lecturer at the Faculty of Education and Social Sciences, Universiti Selangor (UNISEL). She specialises in counseling psychology and early childhood education. She can be contacted at email: noorhanim@unisel.edu.my.



**Lim Seong Pek**     is a senior lecturer at the Faculty of Education and Liberal Arts, INTI International University. He received his Doctorate in Education (Ed.D.) degree from Universiti Selangor. He specialises in Media Literacy, Multimodality and Teacher Education. He can be contacted at email: seongpek.lim@newinti.edu.my.



**Suzulaikha Mohamed**     is a TESL lecturer at the Faculty of Education and Social Sciences, Universiti Selangor (UNISEL). She specialises in english language studies and language teaching methodology. She can be contacted at email: suzulaikha@unisel.edu.my.



**Tengku Shahrom Tengku Shahdan**     is an Assoc. Prof. at Albukhary International University (AIU). He is currently the Dean of the School of Education and Human Sciences. He specialised in instructional design and e-learning systems. He can be contacted at email: shahrom.shahdan@aiu.edu.my.



**Nurul Asyiqin Jalil**    is currently a graduate research assistant funded under Fundamental Research Grant Scheme by Malaysian Ministry of Higher Education. Her research interest involves digital parenting and digital literacy. She can be contacted at email: [asyiqin1501jalil@gmail.com](mailto:asyiqin1501jalil@gmail.com).



**Anisa Ahmad**    is the president of the Association of Registered Childcare Providers Malaysia (PPBM). She is a trainer for PPBM, and in-house trainer and advisor for Tulip Tots Child Care Center, with experience in early childhood care and education for more than 15 years. She can be contacted at email: [anisaahmad.ppbm@gmail.com](mailto:anisaahmad.ppbm@gmail.com).



**Tirzah Zubeidah Zachariah**    is a senior lecturer at the Faculty of Education and Social Sciences, Universiti Selangor (UNISEL). She specialised in English Literature and Feminism in Education. She can be contacted at email: [tirzah@unisel.edu.my](mailto:tirzah@unisel.edu.my).