8TH International Conference on Interprofessional Health Collaboration and Community Empowerment
Kemenkes Poltekkes Bandung

GLOBAL RESEARCH TRENDS IN DIGITAL INTERPROFESSIONAL COLLABORATION FOR DIABETES CARE: A BIBLIOMETRIC APPROACH

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Abstract **Background**: Digital interprofessional collaboration (IPC) in diabetes care has become a critical research area due to the growing global diabetes burden. Despite the transformative role of digital health tools like telemedicine, there is limited bibliometric research mapping global trends in digital IPC for diabetes care.
Objectives: This study aims to analyze global research trends, identify key contributors, collaboration networks, and examine the thematic evolution of digital IPC in diabetes care using bibliometric analysis.
Method: A total of 574 articles published between 2010 and 2024 were retrieved from the Scopus database. Bibliometric tools, including CiteSpace, VOSviewer, and RStudio, were used to analyze publication volumes, citation patterns, co-authorship networks, and thematic clustering.
Results: The analysis revealed a steady increase in publications, particularly post-2020, reflecting the surge in digital health adoption due to the COVID-19 pandemic. Diabetes Care and Journal of Telemedicine and Telecare emerged as central journals in the field. Leading authors such as Powers, Bodenheimer, and Zhang were identified as key contributors. Furthermore, the study highlighted growing international collaboration, with significant contributions from China and India, signaling a shift toward more inclusive global engagement in digital IPC.
Conclusion: Digital IPC in diabetes care has experienced substantial growth, particularly with the shift toward digital health solutions post-pandemic. This study uniquely integrates interprofessional collaboration and digital health technologies, filling a gap in the existing literature. Future research should focus on expanding international collaboration, addressing disparities between high- and low-income countries, and further integrating emerging digital technologies to enhance diabetes management globally.

Keywords: bibliometric, diabetes mellitus type 2, digital health, interprofessional relations, telemedicine

BACKGROUND

Digital interprofessional collaboration (IPC) in diabetes care has gained significant attention in recent years, driven by the increasing need for innovative solutions to manage the rising global burden of diabetes (1). The integration of digital health tools, such as telemedicine, e-health platforms, and telemonitoring systems, has revolutionized the way healthcare professionals collaborate to provide care for individuals with diabetes (2). These digital tools have enabled more efficient, patient-centered management, fostering collaboration between various healthcare professionals, including physicians, pharmacists, nurses, and dietitians (3). The field's growth is reflected in the steady increase in publications, particularly after the COVID-19 pandemic, which acted as a catalyst for the rapid adoption of digital health technologies (4). With an annual growth rate of 9.46%, digital IPC in diabetes care continues to expand, reflecting its growing recognition as an essential aspect of modern healthcare (4). As digital solutions continue to reshape diabetes management, there is a pressing need for enhanced global collaboration, especially between high-income and low- and middle-income countries (LMICs), to address disparities in diabetes care and leverage digital health technologies to improve outcomes worldwide (5).

Recent bibliometric studies have explored artificial intelligence (AI) and machine learning in diabetes care, yet a critical gap remains in integrating digital interprofessional collaboration (IPC) with these technologies. Studies by Camacho et al. (2024), García-Jaramillo et al. (2024), and Yang et al. (2023) highlight the growing role of AI and machine learning in diabetes diagnosis and management but fall short in addressing the collaborative nature of care required in complex conditions like diabetes (6–8). These studies focus on individual aspects such as diabetic retinopathy detection or predictive analytics but fail to examine how interdisciplinary teams doctors, nurses, pharmacists, and dietitians can use digital health tools together. Tao et al. (2024) examined AI in diabetes complications, but it didn't focus on collaborative care, which is essential for optimizing patient outcomes (9). The absence of research on integrating digital IPC and AI technologies underscores the need for this study. This research aims to map global trends in digital IPC for diabetes care, offering a novel approach by integrating these aspects. By focusing on the collaboration between healthcare professionals and the application of AI in diabetes care, the study addresses a gap in existing literature, aiming to improve outcomes and promote global collaboration in diabetes management. The objective is to identify research trends and key contributors, contributing to a better understanding of digital IPC in diabetes care.

Despite the growing body of research on telemedicine, telehealth, and diabetes management, few bibliometric studies have integrated the dimensions of interprofessional collaboration and digital health technologies in the context of diabetes care. This study conducts a bibliometric analysis of global research trends in digital IPC for diabetes care from 2010 to 2024, aiming to identify key contributors, examine collaboration networks, and track thematic evolution. The findings will provide insights into the development of digital IPC in diabetes care, with implications for future research, policy, and addressing disparities in diabetes care between high-income and low- and middle-income countries.

METHODS

This research uses a bibliometric approach to analyze global research trends in digital IPC for diabetes care. A total of 574 articles published between 2010 and 2024 were retrieved from the Scopus database, a reliable source of peer-reviewed articles across various disciplines. The search included keywords such as "digital health," "telemedicine," "type 2 diabetes," "interprofessional collaboration," and "e-health."

Data Cleaning and Inclusion Criteria

To ensure the quality and relevance of the dataset, several inclusion and exclusion criteria

DOI 10.34011/icihcce.v1i1.349

were applied. Only English-language articles published between 2010 and 2024 that were directly related to digital interprofessional collaboration (IPC) in diabetes care were included in the study. Non-peer-reviewed documents, reviews, conference papers, book chapters, and articles in languages other than English were excluded. Additionally, articles not directly focused on digital IPC or diabetes care were also removed from the dataset. After applying these criteria, the final dataset comprised 574 articles. Data extraction was conducted on October 17th, 2025, and a flowchart of the selection process is presented in Figure 1.

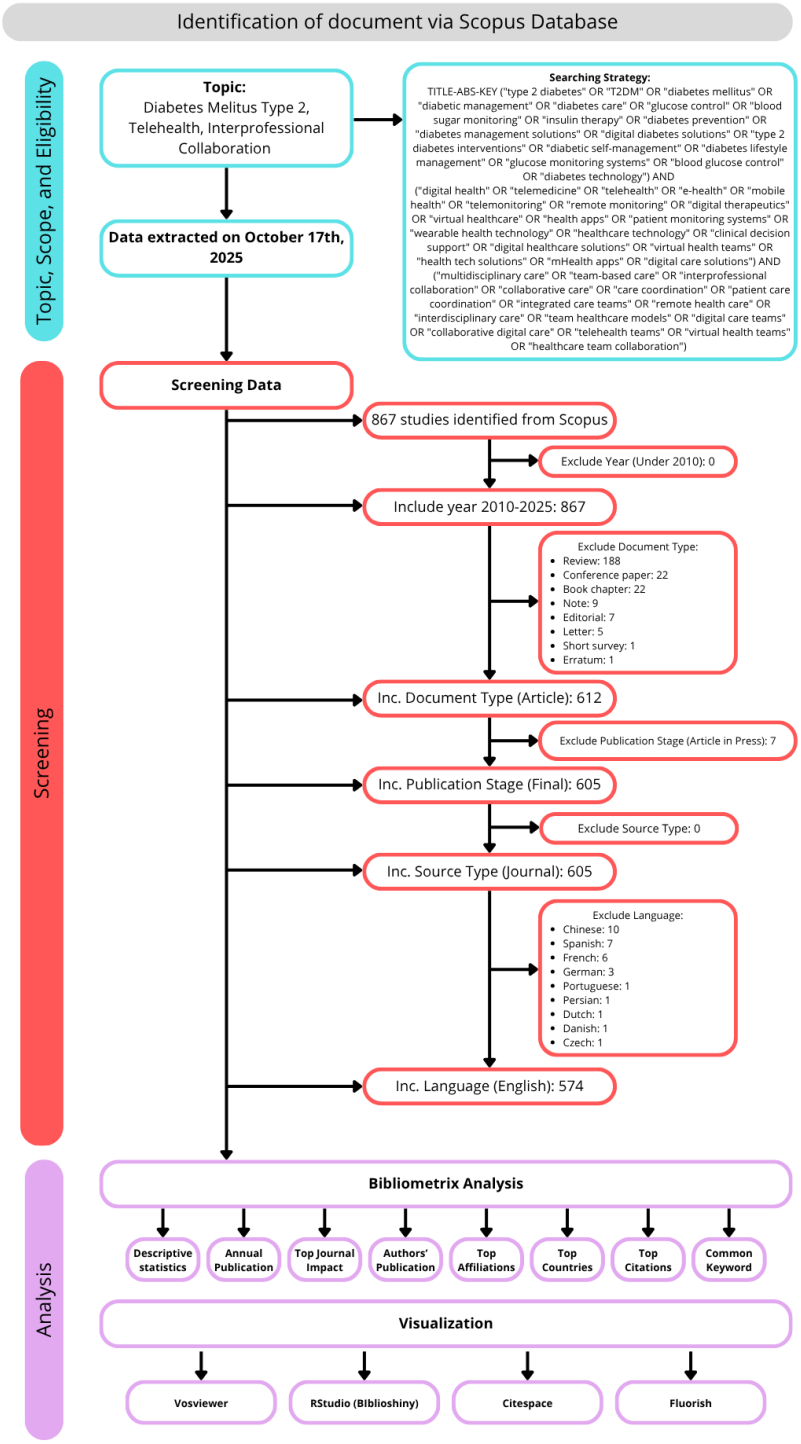

Figure 1. Flow chart of the search process.

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Analysis Tools

The bibliometric analysis was conducted using several specialized tools. CiteSpace was used to analyze citation bursts, track emerging research topics, and visualize the development of research trends over time. VOSviewer was employed to create and visualize co-authorship networks, co-citation networks, and keyword co-occurrence networks, offering insights into research collaborations and topic clustering. RStudio (Biblioshiny) was utilized for advanced bibliometric mapping and trend analysis, which helped to identify key authors, journals, and research fronts in the field. Additionally, Excel 2021 was used to organize the data and calculate basic statistics, such as publication trends, citation averages, and author productivity, providing an overview of the research landscape.

RESULT AND DISCUSSION

Descriptive Statistics for Bibliometric Data

Figure 1 summarizes the bibliometric metrics for the period from 2010 to 2024, showing a total of 251 sources and 574 documents analyzed, with 3,161 authors contributing to this research area. Notably, there were no single-authored documents, highlighting the interdisciplinary nature of the field, with an average of 14.7 co-authors per document. The international co-authorship rate of 15.59% suggests that while there is international collaboration, there is room for further expansion, particularly with low- and middle-income countries (LMICs). The growth rate of 9.46% annually indicates a rapidly expanding interest in digital IPC, with more researchers and journals recognizing its importance.

The high number of co-authors per document (14.7 on average) reinforces the idea that digital IPC in diabetes care requires collaboration across various healthcare professionals, such as physicians, pharmacists, nurses, and dietitians. The absence of single-authored works suggests that digital IPC research is a multidisciplinary and multinational effort. The moderate international co-authorship rate (15.59%) highlights the need for more inclusive global research collaboration, particularly in LMICs where digital health solutions are urgently needed to tackle the growing diabetes burden (5). The steady growth in publications reflects increasing academic recognition of digital IPC's role in reshaping diabetes care. The growth rate of 9.46% annually indicates a rapidly expanding interest in digital IPC in diabetes care. This growth rate suggests that the field is still emerging but gaining significant traction, particularly with the increasing focus on digital health tools and technologies that are shaping the future of diabetes care (10).

While the steady growth rate demonstrates a maturing research field, the data also reveal structural imbalances in global participation. Most publications originate from high-income countries (HICs), suggesting a strong "North–South divide" in research productivity. This pattern reflects disparities in research funding, technological readiness, and access to digital infrastructure (11). Low- and middle-income countries (LMICs), despite facing a higher burden of diabetes, remain underrepresented in collaborative research networks (12). This gap not only limits the generalizability of digital IPC findings but also highlights the urgent need for more inclusive global research partnerships that incorporate diverse healthcare contexts (12). Addressing this imbalance would improve both equity and the translational impact of digital IPC innovations on a global scale.

DOI 10.34011/icihcce.v1i1.349

Figure 2. Descriptive statistics for bibliometric data from 2010 to 2024

Annual Publication Volume in Digital IPC for Diabetes Cares

Table 1 presents the annual publication trends from 2011 to 2024, showing a steady increase in the number of articles, with the highest number recorded in 2023 (74 publications) and 2024 (68 publications). The upward trend in the number of publications from 2011 to 2024 reflects a growing recognition of the importance of digital IPC in diabetes care. The spike in 2020 is particularly noteworthy, as it aligns with the global shift to digital solutions during the COVID-19 pandemic (5). The pandemic acted as a significant catalyst for the rapid adoption of digital health technologies such as telemedicine, e-health platforms, and telemonitoring systems (13). Healthcare systems worldwide were forced to innovate in order to continue providing care amidst lockdowns and social distancing measures (14). As a result, digital IPC became essential to ensure that patients with chronic diseases like diabetes received continuous care, which is reflected in the sudden increase in research articles published in 2020.

The increase in publications after 2020 highlights a fundamental shift in diabetes care, with digital IPC playing a central role in ensuring continued care during pandemic-related lockdowns and social distancing (15). The sustained increase post-2020 suggests that the adoption of digital health tools in diabetes care is not a temporary response but a lasting transformation (16). The growing interest in hybrid care models (combining both in-person and remote care) will likely drive further research, particularly as technology continues to evolve (17).

The rapid escalation of publications after 2020 mirrors the acceleration of digital transformation during the COVID-19 pandemic, but it also signals deeper systemic changes in how diabetes care is conceptualized (18). This surge reflects a shift from technology as a supplementary tool to technology as an integral component of healthcare delivery (19). However, the long-term sustainability of this digital transition remains uncertain, particularly in regions where healthcare digitalization is uneven (20). The challenge lies not in the number of studies produced but in ensuring that these innovations translate into improved clinical outcomes such as better glycemic control, adherence, and patient quality of life rather than remaining technological pilots confined to academic settings (21).

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Table 1. Annual Publication Volume in Digital Interprofessional Collaboration in Diabetes Care

Year	Articels
2024	68
2023	74
2022	54
2021	54
2020	31
2019	36
2018	32
2017	23
2016	30
2015	27
2014	24
2013	20
2012	19
2011	21

Top Journals in Digital IPC Research for Diabetes Care

Table 2 shows the top journals publishing the most articles on digital IPC in diabetes care. Diabetes Care is the most productive journal, with 22 articles, followed by Journal of Telemedicine and Telecare with 13 articles. Other journals such as BMC Health Services Research and Telemedicine and E-Health published 12 articles each. The diversity of journals in this field, ranging from clinical diabetes management to health services research and digital health technologies, reflects the interdisciplinary nature of digital IPC research (22).

The dominance of journals such as Diabetes Care and Journal of Telemedicine and Telecare highlights the growing importance of telehealth and telemedicine in diabetes care, emphasizing their role as key platforms for disseminating high-quality research on digital health solutions. The diversity of journals represented, spanning diabetes care, telemedicine, and digital health, underscores that digital IPC is an interdisciplinary field (23). Researchers are contributing across a variety of domains, from clinical diabetes management to health services research and digital health technologies, supporting the idea that digital IPC requires a holistic and collaborative approach to address the complexities of diabetes care (24).

Moreover, the increasing number of articles published in specialized journals such as BMC Health Services Research and Telemedicine and E-Health reflects the growing recognition of digital IPC not just in diabetes care, but in broader healthcare management strategies. As digital tools continue to reshape healthcare delivery, these journals will remain central in disseminating critical research and best practices, driving forward the evolving landscape of digital IPC.

The concentration of publications in journals specializing in diabetes and telehealth indicates a disciplinary focus that may inadvertently limit interdisciplinary dialogue. While journals like *Diabetes Care* and *Journal of Telemedicine and Telecare* lead in productivity, few publications appear in global health or policy-oriented outlets. This highlights an opportunity for future studies to integrate perspectives from implementation science, health equity, and systems policy (25). Doing so would help connect the technological advancements of digital IPC to broader public health frameworks and accelerate the adoption of these models in real-world care settings, especially within resource-limited systems (26).

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Table 2. Top journal impact

Journal	Articles
Diabetes Care	22
Journal of Telemedicine and Telecare	13
Bmc Health Services Research	12
Telemedicine and E-Health	12
Diabetes Technology and Therapeutics	11
Journal Of Medical Internet Research	10
Plos One	10
BMJ Open	9
Canadian Journal of Diabetes	9
JMIR Diabetes	8

Author Collaboration and Citation Network in Digital IPC for Diabetes Care

Figure 3 presents the author collaboration and citation network, identifying the most influential authors in the field of digital IPC for diabetes care. Powers (11 citations), Bodenheimer (12 citations), and Zhang (8 citations) were the most frequently cited authors, underscoring their significant contributions to the research on patient-centered care, interdisciplinary care models, and AI-assisted clinical decision support systems (CDSS).

The prominence of Powers, Bodenheimer, and Zhang highlights the significant influence of interdisciplinary care and AI-driven solutions in the evolution of digital IPC in diabetes care. Powers' work on patient engagement and Bodenheimer's emphasis on team-based care have been instrumental in integrating digital health tools into collaborative care models (27), focusing on the importance of teamwork in managing chronic conditions like diabetes (28). Zhang's recent contributions, particularly in AI-assisted clinical decision support systems (CDSS), showcase the growing role of artificial intelligence in enhancing decision-making and optimizing patient outcomes (29). Together, these authors underscore the interdisciplinary nature of digital IPC, with their work spanning patient care, behavioral health, and digital health technologies. Their foundational research continues to shape the discourse around integrating digital tools into team-based diabetes care, offering valuable insights into improving patient self-management and care delivery. The prominence of these authors also suggests that digital IPC in diabetes care is an emerging field with foundational contributions from key scholars. Their work is critical for advancing knowledge and informing best practices in integrating digital tools into team-based diabetes care models.

The dominance of a small cluster of highly cited authors such as Powers, Bodenheimer, and Zhang points to a concentrated intellectual influence that shapes the research trajectory of digital IPC. However, this also reveals a dependency on a limited set of academic ecosystems, mostly based in North America and East Asia (30). The lack of influential authors from LMICs underscores structural barriers in knowledge production, including limited funding and digital infrastructure (31). Encouraging the participation of early-career researchers and institutions from underrepresented regions could diversify perspectives and enhance innovation, especially regarding culturally adaptive and community-based digital care models.

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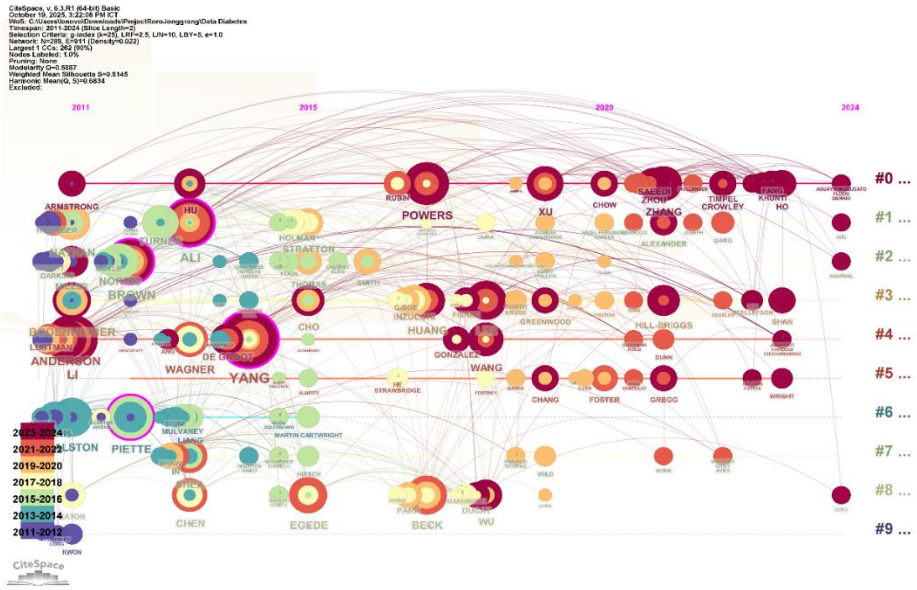

Figure 3. Authors' publication and citation trends over time from 1995 to 2025. The chart displays the number of articles (N Articles) and total citations (TC) for each author

Contributios of Affiliations

Figure 4 highlights the affiliations with the highest number of articles published on digital IPC for diabetes care. Duke University School of Medicine leads with 43 articles, followed by University of California with 36 articles. Other notable affiliations include University of Southern California (27 articles) and Harvard Medical School (24 articles).

The prominence of institutions such as Duke University, University of California, and Harvard Medical School highlights their leadership in advancing research on digital IPC in diabetes care. These institutions possess the necessary resources, funding, and collaborative networks to drive innovation in digital health. Their contributions bridge the gap between academic research and clinical practice, enabling the translation of research findings into real-world applications that improve diabetes management (32–34).

However, the geographic concentration of these leading institutions in North America suggests that digital IPC research is largely driven by high-income countries (35). While these institutions have led the field, there is a clear opportunity for greater international collaboration, particularly with institutions in low- and middle-income countries (LMICs) (36). Expanding the global reach of digital IPC research will help address disparities in diabetes care, ensuring that digital health solutions benefit diverse populations across varying healthcare settings (37).

The concentration of institutional productivity in a handful of elite universities in the United States reveals how academic powerhouses drive global narratives in digital IPC. This dominance reinforces epistemic dependence, where frameworks and intervention models developed in high-income countries are applied globally, often without contextual adaptation (38). Expanding capacity-building programs and joint research funding between institutions in the Global North and South could mitigate this imbalance (38). Creating equitable academic partnerships would help ensure that digital IPC strategies are locally relevant, culturally appropriate, and sustainable in low-resource environments (38).

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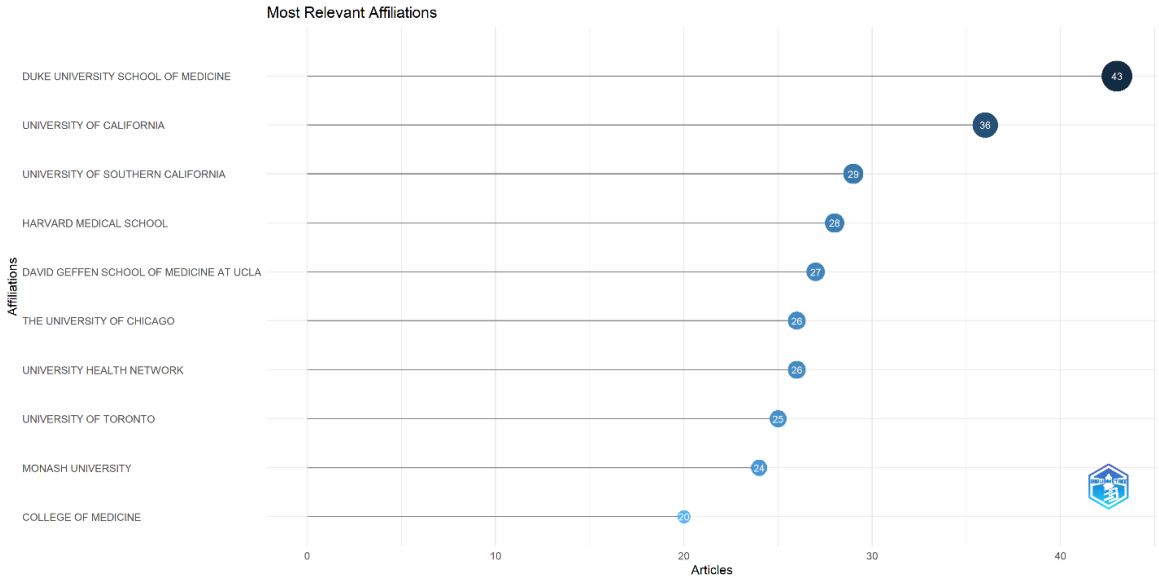

Figure 4. Most Relevant Affiliations in Digital Interprofessional Collaboration for Diabetes Care.

Top Contributing Countries in the research

Figure 5.A shows The United States is the leading contributor to digital interprofessional collaboration in diabetes care, with a total of 1,664 publications, followed by Canada (233 publications) and Australia (231 publications). The map clearly indicates that high-income countries dominate the landscape of digital IPC research, with these nations contributing significantly more publications than low- and middle-income countries.

Figure 5.B visualizes the country collaboration and citation network using CiteSpace, showing the United States as the most influential country with the highest citation count (258 citations). The country occupies a central position in the global research network, indicating both strong academic output and a pivotal role in global collaboration. This network suggests an increasing level of international collaboration, highlighting the potential for more cross-border partnerships in advancing digital IPC research in diabetes care.

The United States' leadership in digital IPC for diabetes care is driven by its advanced healthcare infrastructure, significant research funding, and a strong focus on healthcare innovation. U.S. institutions, supported by organizations like the National Institutes of Health (NIH) and the American Diabetes Association (ADA), have spearheaded research on telemedicine and digital health solutions (39). This has allowed the U.S. to remain at the forefront of digital health adoption, shaping global research trends in diabetes care. The high citation impact of U.S. based publications reflects the influence of their work in advancing diabetes care models and influencing international clinical practices (40).

While high-income countries like the U.S. lead, China and India are emerging as significant contributors to digital IPC research. Both countries are rapidly expanding their healthcare systems and adopting digital health technologies to manage diabetes (41). China, through government initiatives like telemedicine networks, is focusing on addressing healthcare access in rural areas (42), while India is innovating with mobile health solutions to tackle its large, underserved population (43). The growing research output from these nations signals a broader global interest in digital IPC and reflects their commitment to addressing the rising diabetes burden.

The collaboration between the U.S., China, and India underscores the importance of international partnerships in advancing digital IPC research (44). These collaborations facilitate the exchange of knowledge and resources, helping to adapt digital IPC models to different healthcare systems. Sharing innovations, such as China's telemedicine

DOI 10.34011/icihcce.v1i1.349

infrastructure and India's mobile health applications, can create scalable solutions for diabetes care globally (45,46). By fostering these partnerships, countries can accelerate the development and implementation of digital IPC models, ensuring that digital health innovations benefit patients worldwide (47).

The dominance of the United States and other high-income countries in publication output is not merely a reflection of resource availability but also of structural inequities in global knowledge dissemination (46). LMICs face barriers including limited access to databases, language bias in publication, and funding inequalities (48). Moreover, while high-income nations pioneer technological innovation, LMICs often serve as late adopters or testing grounds (48). Addressing this imbalance requires strategic global policies promoting south–south collaborations, open-access publishing, and equitable resource distribution to democratize research participation in digital IPC (11).

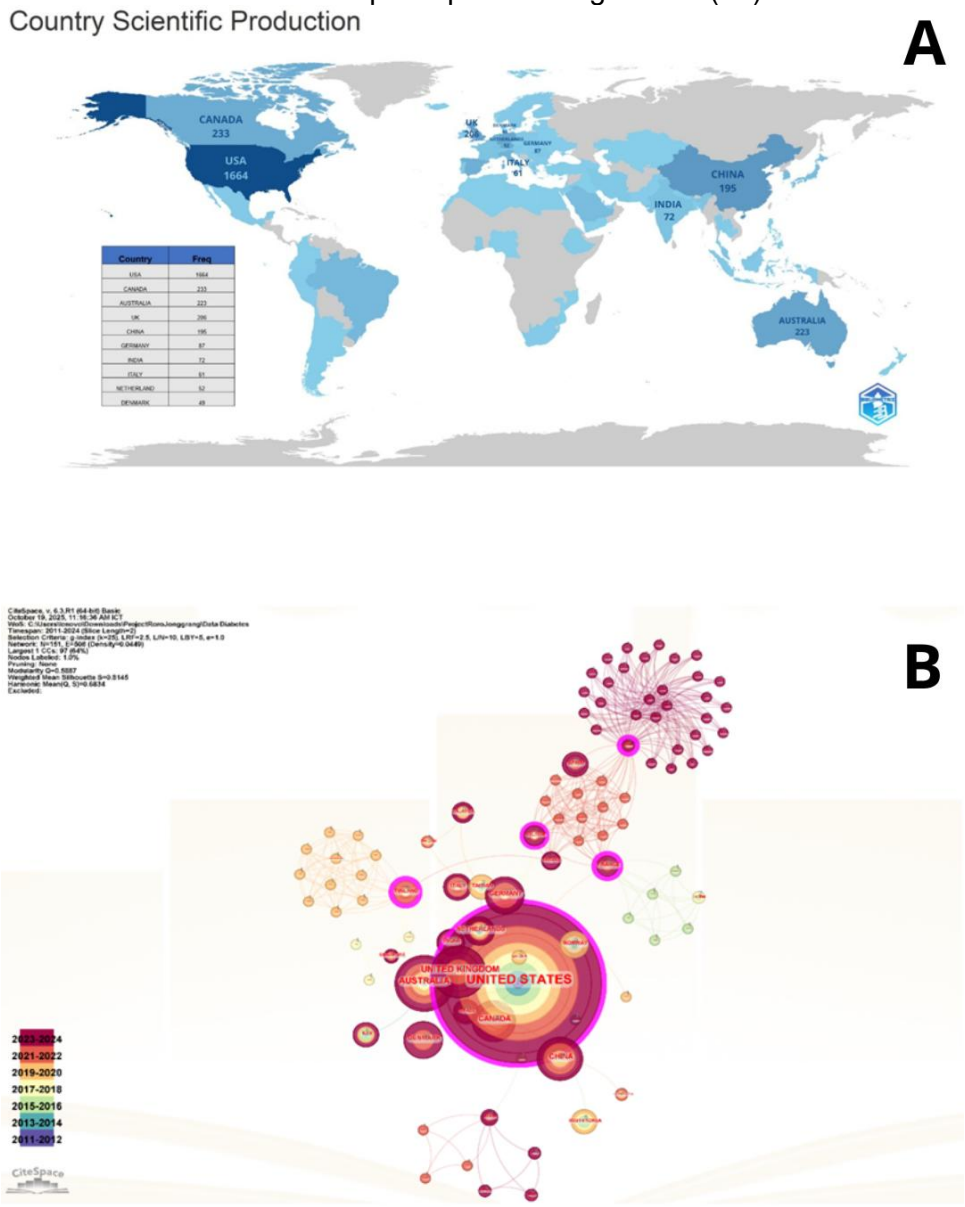

Figure 5. Analysis of top contributing countries in Digital Interprofessional Collaboration for Diabetes Care. (A) A world map highlighting the top 10 countries based on the number of publications; (B) A network visualization of international collaborations, where node sizes represent publication volume and connecting lines indicate co-authorship between countries.

DOI 10.34011/icihcce.v1i1.349

Publications with the most citations

Table 3. presents the top ten most-cited publications related to diabetes care and management. The most-cited article is by the American Diabetes Association (2019), with 635 citations, focusing on lifestyle management standards in diabetes care. It is followed by Fisher et al. (2014) with 355 citations, discussing depression and distress in diabetes patients, and Sarkar et al. (2011), cited 354 times, which addresses the digital divide in internet patient portal use for diabetes care. Other influential works include studies on behavior change and digital health interventions, all of which have made significant contributions to the understanding of diabetes care.

The high citation count of these foundational articles reflects their significant influence in shaping the research agenda for digital IPC in diabetes care. The ADA's *Standards of Medical Care* are essential guidelines in diabetes management, and the growing citations highlight the importance of evidence-based recommendations in integrating digital health tools into clinical practice (49).

The work by Fisher et al. (2014) on depression and distress in diabetes patients and Sarkar et al. (2011) on the digital divide in internet patient portal use underscores the role of digital health in addressing both clinical and psychosocial aspects of diabetes care. These publications emphasize the need for comprehensive, patient-centered care models that incorporate digital tools to address the complex challenges faced by patients with T2DM (50,51). The continued citation of these works suggests that their relevance remains high, indicating that digital health solutions are increasingly seen as integral to improving not just the physical aspects of diabetes management but also addressing the psychological and social dimensions of the disease.

The most-cited works emphasize behavioral and psychosocial aspects of diabetes, yet few highly cited papers rigorously evaluate the clinical impact of digital IPC interventions. This suggests a persistent gap between theoretical advocacy and measurable health outcomes. While psychosocial support and patient empowerment are essential, future research should critically assess the direct effects of digital IPC on biomarkers (e.g., HbA1c, blood pressure, complication rates). Linking behavioral outcomes to quantifiable clinical metrics would strengthen the empirical foundation for policy integration of digital IPC models.

Table 3. Most-Cited Publications in Digital Interprofessional Collaboration in Diabetes

Authors	Title	Source	Citation
American Diabetes Association (49)	Lifestyle Management: Standards of Medical Care in Diabetes 2019	Diabetes Care	635
Fisher et al. (50)	The confusing tale of depression and distress in patients with diabetes: a call for greater clarity and precision	Diabetic Medicine	355
Sarkar et al. (51)	Social disparities in internet patient portal use in diabetes: evidence that the digital divide extends beyond access	Journal of the American Medical Informatics Association	354
American Diabetes Association (52)	Facilitating Behavior Change and Well-being to Improve Health Outcomes: Standards of Medical Care in Diabetes 2020	Diabetes Care	315
Cebul et al. (53)	Electronic Health Records and Quality of Diabetes Care	The New England Journal of Medicine	288
Kirwan et al. (54)	Diabetes Self-Management Smartphone Application for Adults With Type 1 Diabetes: Randomized	Jornal of Medical Internet Research	278

DOI 10.34011/icihcce.v1i1.349

Authors	Title	Source	Citation
	Controlled Trial		
ElSayed et al. (55)	Facilitating Positive Health Behaviors and Well-being to Improve Health Outcomes: Standards of Care in Diabetes 2023	Diabetes Care	274
American Diabetes Association (56)	Facilitating Behavior Change and Well-being to Improve Health Outcomes: Standards of Medical Care in Diabetes 2021	Diabetes Care	257
Beck et al. (57)	2017 National Standards for Diabetes Self-Management Education and Support	Diabetes Care	249
Faruque et al. (58)	Effect of telemedicine on glycated hemoglobin in diabetes: a systematic review and meta-analysis of randomized trials	Canadian Medical Association Journal	228

Common keyword

The analysis of keyword co-occurrence in the field of digital interprofessional collaboration in diabetes care provides insights into the most frequently used terms and research trends. Using network visualization, key terms were identified and categorized into distinct clusters. The largest cluster focused on healthcare and patient care-related terms such as telemedicine, primary health care, and patient care (see Figure 6.). The second cluster centered around diabetes management terms like non-insulin dependent diabetes and glycated hemoglobin, while the third cluster highlighted blood glucose control, including terms like glucose blood level and hemoglobin A1c. The connections between these terms illustrate the central themes and relationships within the field.

The identification of thematic clusters in digital IPC research emphasizes the central focus on clinical outcomes in diabetes management. Keywords related to *glycated hemoglobin* and *blood glucose control* highlight the role of telemedicine and other digital health tools in monitoring and improving key diabetes indicators (59). The prominence of terms like *primary health care* and *patient care* underscores the patient-centered approach to digital IPC, where collaboration between healthcare professionals is essential to ensure effective management of diabetes (60). The results also indicate that research is increasingly focused on integrating digital health tools into routine care for managing chronic diseases. The convergence of telemedicine, patient care, and blood glucose control reflects the growing trend toward using digital solutions to enhance clinical decision-making and provide continuous care (61).

The clustering of keywords around telemedicine, blood glucose control, and patient care reveals a clinical orientation that may overlook broader determinants of successful digital IPC adoption. There is limited exploration of implementation challenges such as health literacy, data governance, and the ethical dimensions of AI-assisted care. Future bibliometric and empirical research should examine how these contextual factors shape digital IPC effectiveness, particularly in resource-constrained settings. Addressing these gaps would move the field beyond technical innovation toward sustainable, equitable, and patient-centered digital health ecosystems.

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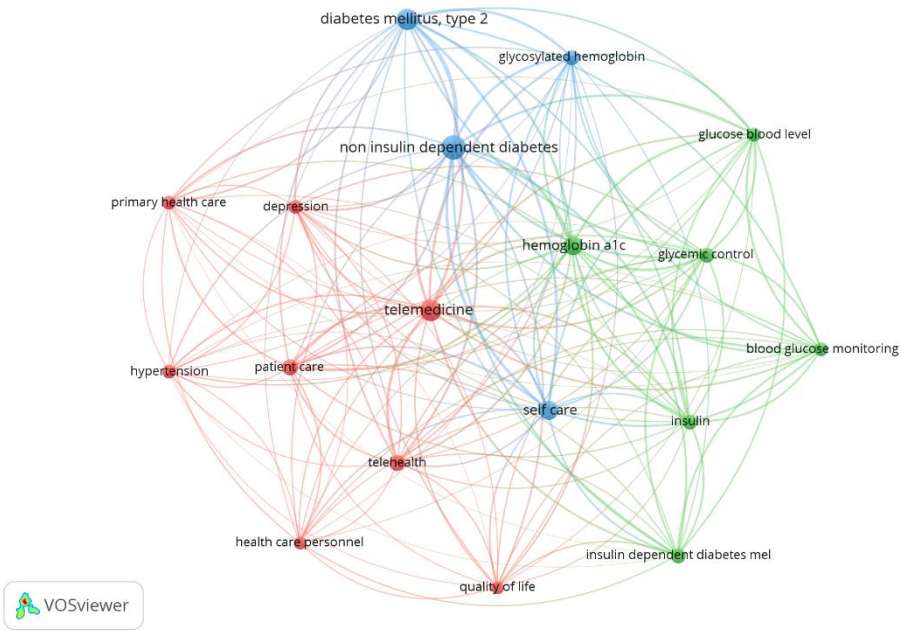

Figure 6. Co-occurrence Network of Key Terms in Digital Interprofessional Collaboration for Diabetes Care.

Critical Insight: Comparison with Recent Literature

Our findings align with the recent 2024 study by Zhu et al. (62), which also highlighted the exponential growth in publications on digital diabetes care from 2015 to 2024, particularly post-2020, driven by the COVID-19 pandemic. Both studies show a surge in research related to telemedicine, mobile health apps, and AI-driven solutions, underlining the rapid integration of digital health tools in diabetes management. However, while Zhu et al. (62) focused on digital tools like CGM and mobile apps, our analysis places a stronger emphasis on digital interprofessional collaboration (IPC). Both studies highlight the global North-South divide, with high-income countries (e.g., the United States) leading in research output, while low- and middle-income countries (LMICs) remain underrepresented, reflecting significant barriers to digital infrastructure and health literacy in these regions. Zhu et al. (62) also identified patient education and self-management tools as emerging themes, which resonate with our findings on clinical outcomes and patient empowerment. However, both studies emphasize the need for greater global collaboration to address the digital divide and enhance clinical outcomes in LMICs, an issue that remains a challenge despite the growing recognition of digital health's role in reshaping diabetes care globally.

CONCLUSION

This study provides the first global bibliometric mapping of digital interprofessional contribution in diabetes care, highlighting the rapid growth of research from 2010 to 2024 and the significant surge in publications during the COVID-19 pandemic. While the field's expansion reflects growing interest in digital health solutions for diabetes management, the findings also reveal substantial research inequalities, with high-income countries dominating the field and low- and middle-income countries (LMICs) underrepresented despite facing a disproportionate burden of diabetes. The study emphasizes the interdisciplinary nature of digital interprofessional contributions, with contributions from healthcare professionals across disciplines, and identifies leading journals and influential authors who have shaped the field. Moving forward, it is critical to enhance international collaboration, promote equitable access to digital health solutions, and prioritize AI-

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supported care models that can optimize patient outcomes. Future research should focus on addressing the digital divide, evaluating the clinical effectiveness of digital IPC, and fostering inclusive, sustainable models of diabetes care to ensure global applicability, particularly in underserved regions.

COMPETING INTERESTS

The authors declare that there are no conflicts of interest related to this study.

AUTHOR'S CONTRIBUTION

Dhiya Zulayta: Conceptualization, Methodology, Validation, Formal Analysis, Writing Original Draft. Septi Nurkhasanah: Conceptualization, Methodology, Validation, Formal Analysis, Writing Original Draft. Ikhwan Yuda Kusuma: Supervision, Data Interpretation, Writing Review & Editing. Laila Veronica: Visualization.

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