

Social Media Addiction and Well-Being: A Mapping of Global Research Trends and Intellectual Structure (2015–2025)

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ABSTRACT

The escalating prevalence of social media addiction and its profound implications for psychological well-being necessitate a comprehensive understanding of the field's global intellectual structure and thematic evolution. Despite the expanding body of literature, a systematic, large-scale mapping is needed to delineate dominant research clusters, key cross-national collaborations, and persistent gaps. Therefore, this bibliometric analysis aims to map the global intellectual structure, productivity trends, and thematic development of 698 peer-reviewed journal articles published between 2015 and 2025, retrieved from the Scopus database. The dataset underwent rigorous preprocessing via OpenRefine for data harmonization, followed by scientific mapping using VOSviewer to generate co-authorship and keyword co-occurrence networks. The analysis indicates a significant and accelerating upward trend in publications, largely dominated by contributions from the United States, China, the United Kingdom, and India, with evidence of complex, multi-clustered international collaboration. Keyword co-occurrence analysis revealed seven major thematic clusters centered around internet addiction, depression, anxiety, and psychological distress, validating core linkages between problematic social media use and negative mental health outcomes. Critically, the findings reveal a concentrated research focus that implicitly highlights significant future inquiry gaps concerning cross-cultural variability across different global regions, the systematic development of digital well-being intervention strategies, and the integration of robust theoretical frameworks to guide policy. This study offers a high-precision, current overview for international researchers and policymakers, guiding evidence-based decision-making and prioritizing future high-impact research pathways.

Keywords: Social Media Addiction, Well-Being, Bibliometric Analysis, VOSviewer, Intellectual Structure, Global Research Trends, Mental Health, Cross-Cultural Variability

INTRODUCTION

In the digital age, social media has become an integral part of daily life, offering numerous benefits such as enhanced connectivity and social interaction. However, the pervasive and often unregulated use of these platforms has led to the emergence of Social Media Addiction (SMA), a behavioral health concern characterized by compulsive and excessive engagement. This phenomenon has raised significant concerns regarding its detrimental impact on mental health and overall well-being. SMA is linked to various negative psychological outcomes, including increased levels of stress, anxiety, depression, and diminished self-esteem. (Mim et al., 2024; Zacharias et al., 2025; Yuan, 2025; Chauhan et al., 2025). Understanding the evolving research landscape that defines the complex relationship between social media addiction and well-being is crucial for developing effective interventions and promoting healthier digital behaviors on a global scale. This study addresses this need by providing a systematic bibliometric mapping of the field.

LITERATURE REVIEW

The relationship between social media addiction and well-being has been extensively studied,

revealing a complex interplay of factors that contribute to the negative psychological impact. The foundational research consistently establishes a statistically significant inverse correlation: as social media addiction severity increases, measures of psychological well-being tend to decrease (Mim et al., 2024)(Zacharias et al., 2025). For instance, empirical studies among specific populations, such as college students, have substantiated this finding, highlighting the urgency of addressing the mental health consequences associated with problematic digital engagement (Zacharias et al., 2025) (Yuan, 2025).

To move beyond the basic correlation, several studies have explored the mechanisms and specific psychological correlates through which social media addiction exerts its detrimental influence. These studies suggest that the negative effects are often mediated by internal resource depletion and negative social comparison dynamics. Continuous, excessive usage of social media platforms has been theorized to deplete essential energy and attentional resources required for maintaining mental equilibrium, thereby exacerbating symptoms of depression (Moqbel et al., 2024). Furthermore, the inherent structure of social media environments, which encourages the presentation of highly curated and idealized lives, facilitates unfavorable social comparisons. These comparisons can significantly distort self-perception, diminish self-esteem, and lead to long-term psychological distress (Chauhan et al., 2025).

Research also emphasizes the importance of considering individual and contextual factors in mitigating these risks. Studies focusing on specific populations, such as Generation Z, have found that excessive social media use disproportionately impacts their mental health, particularly among vulnerable groups (Sao et al., 2024). Conversely, factors such as mindfulness and satisfaction with family life have been identified as mediating factors that can buffer the negative effects of social media addiction, suggesting that targeted interventions aimed at enhancing these personal and environmental resources could be effective (Bedir et al., 2025).

Finally, prior bibliometric analyses have provided valuable preliminary insights, successfully identifying key geographical contributors, such as the United States, the United Kingdom, and Turkey, and highlighting the rapid increase in research interest over the past decade (Pellegrino et al., 2022). These earlier works delineated the initial thematic focus on internet addiction, behavioral addiction, and the impacts on core psychological constructs like anxiety and depression (Pellegrino et al., 2022; Arora & Mehta, 2023). However, a critical gap remains. The existing reviews lack the current, systematic, and granular analysis required to capture the full global intellectual structure of the last decade (2015–2025). Specifically, there is a lack of high-resolution mapping that systematically integrates current international co-authorship networks, the latest thematic clusters via VOSviewer, and explicitly identifies the research voids that are crucial for advancing global policy and digital health practice. These voids center on cross-cultural variability and the systematic development of intervention-focused strategies. This study addresses this deficiency by providing an updated, methodologically rigorous, and analytically deep bibliometric mapping of the field to guide future high-impact research.

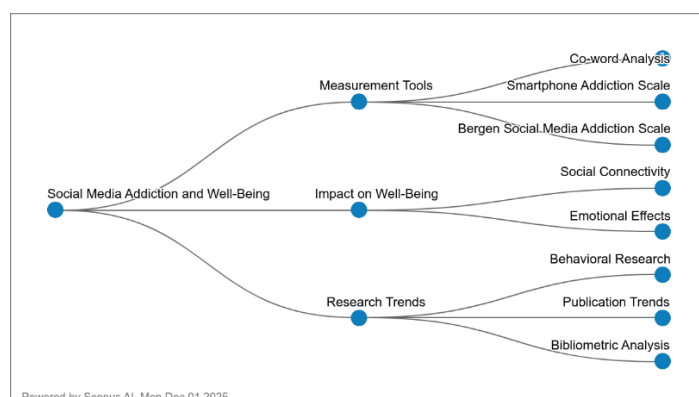


Figure 1: Key Themes in Social Media Addiction and Well-Being Research

Figure 1 illustrating three major thematic concentrations within the field. The first theme, Measurement Tools, highlights the dominant instruments used to quantify addictive behaviours, such as the Smartphone Addiction Scale and the Bergen Social Media Addiction Scale, supported by co-word analyses that identify frequently co-occurring terms. The second theme, Impact on Well-Being, captures the psychological dimensions most associated with social media addiction, including emotional effects, behavioural patterns, and the role of social connectivity in shaping individual experiences. The third theme, Research Trends, maps the broader scholarly focus by linking behavioural research with publication patterns and bibliometric analyses. Together, these clusters reveal that current research is strongly oriented toward validating measurement tools, understanding psychological and social consequences, and tracking the evolution of scholarly attention over time. This conceptual mapping provides a systematic overview of the field and highlights the interconnected elements that shape the study of social media addiction and well-being.

Research Question

The research question, together with the purpose, expected outcomes, and target audience, guides how data are found, collected, and presented. In this paper, the aim to answer several key questions:

RQ1: What are the research trends in this study according to the year of publication?

RQ2: Which are the top 10 most cited articles in this area of study?

RQ3: Which countries rank in the top 10 based on the number of publications?

RQ4: What are the popular keywords related to the study?

RQ5: What is co-authorship by countries' collaboration?

METHODOLOGY

Bibliometrics represents a systematic and rigorous approach to collecting, organizing, and interpreting bibliographic information derived from scientific publications, enabling the comprehensive mapping of a field's intellectual structure (Alves et al., 2021; Assyakur & Rosa, 2022). Beyond generating foundational statistics, such as identifying core journals and prominent authors, this method employs advanced analytical techniques, including co-citation and keyword co-occurrence analysis, to explore conceptual relationships (Wu & Wu, 2017). Consistent with this standard, the present study prioritized a methodologically sound process to ensure a reliable bibliography and strengthen the validity of the findings (Fahimnia et al., 2015).

To ensure the integrity and quality of the dataset, Scopus was employed as the primary indexing source. Scopus was specifically selected over alternatives due to its comprehensive coverage of interdisciplinary research, superior indexing of high-impact journals, and robust tools for structured data extraction, which is essential for large-scale quantitative mapping (Al-Khoury et al., 2022; di Stefano et al., 2010). The scope was intentionally constrained to peer-reviewed journal articles published within the critical period of 2015 to December 2025. This strict exclusion of books, conference proceedings, and lecture notes upholds academic quality by focusing exclusively on fully validated, high-quality research and ensures the analysis reflects the most recent decade of scholarly attention.

The data was retrieved in October 2025 using the Scopus advanced search function with a strategy designed to capture both the antecedent and the essential consequences of the core phenomenon: (TITLE-ABS-KEY (social media addiction AND “well-being” OR “psychological well being” OR “mental health”) AND (LIMIT-TO (LANGUAGE, “English”))). Furthermore, the dataset was strictly confined to subject areas directly relevant to this research, namely Psychology, Social Sciences, Medicine, and Computer Science, thereby filtering out irrelevant domains (e.g., Environmental

Science or Energy). The final dataset comprised 786 articles.

Following initial retrieval, the raw data underwent a crucial cleaning and harmonization process using Open Refine. This step was vital for improving the accuracy of network visualization by addressing known database limitations: specifically, Open Refine was used to remove duplicate entries and to unify variations in author names, institutional affiliations, and keywords (e.g., consolidating “social media addiction” and “SMA”) to ensure accurate counting and clustering in the subsequent analysis. While comprehensive, the methodology is subject to two primary limitations that require transparent disclosure: the restriction to English-language publications may introduce a linguistic bias, and reliance solely on the Scopus database introduces an indexing bias by excluding publications from journals not covered by this index.

For the subsequent analysis, statistical indicators such as publication trends and productivity metrics were derived using the Scopus Analyzer. For the scientific mapping, the VOSviewer software (version 1.6.20) was employed (van Eck & Waltman, 2017). This software is renowned for generating clear network visualizations that allow for the detailed exploration of co-authorship and keyword co-occurrence. In these visualizations, the size of a node (representing a keyword or country) visually indicates its total occurrence or productivity in the dataset, while the proximity between two nodes signifies the strength of their co-occurrence or collaborative relationship. Distinct colors are used to delineate separate thematic or collaborative clusters, providing immediate structural insight. VOS viewer employs association strength (AS_{ij}) as a normalization method for measuring relatedness, which is computed as:

$$AS_{ij} = \frac{C_{ij}}{w_i w_j}$$

where C_{ij} denotes the observed co-occurrences of items i and j , while w_i and w_j represent their respective total co-occurrence counts (van Eck & Waltman, 2017). This robust ratio reflects the extent to which the observed co-occurrences exceed those expected under statistical independence, ensuring the quantitative rigor of the bibliometric mapping.

Table 1. The search string.

Scopus	(TITLE-ABS-KEY (social media addiction AND “well-being” OR “psychological wellbeing”) AND (LIMIT-TO (LANGUAGE, “English”))). December 2025
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Table 2. The selection criterion is searching

Criterion	Inclusion	Exclusion
Language	English	Non-English
Time line	2015 – 2025	< 2025
Literature type	Journal (Article) All	None
Publication Stage	Final In Press	None

FINDINGS AND DISCUSSION

1. What are the research trends in this studies according to the year of publication ?

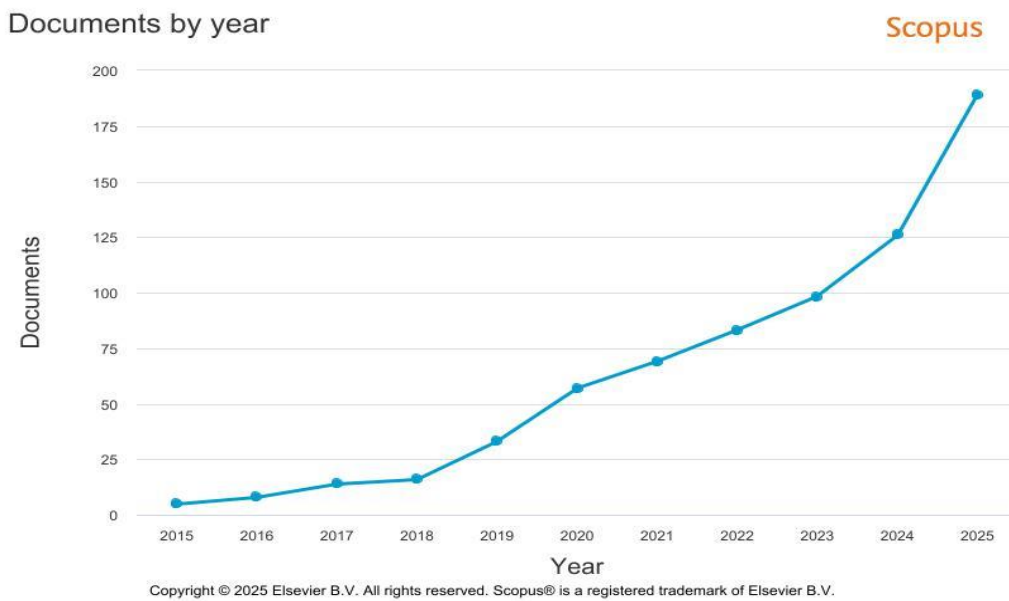


Figure 3: Publication Growth Pattern for Social Media Addiction and Well-Being Studies

The publication trend on “Social Media Addiction and Well-Being” from 2015 to 2025 demonstrates a clear and accelerating upward trajectory, indicating growing scholarly attention toward this topic. Between 2015 and 2018, the number of documents remained modest, reflecting the field’s nascent stage. A sharper, exponential rise becomes visible starting in 2019, surging significantly through 2020 and 2021. This shift highlights the research community's acknowledgment of the urgency of understanding how excessive social media use affects emotional well-being, a concern intensified by the global reliance on digital communication during the COVID-19 pandemic. The dramatic spike in 2025, reaching nearly 200 publications, signals that the topic has transitioned into a mature and mainstream research domain, driven by growing public health relevance and the increasing availability of empirical data for complex analysis. This sustained growth confirms the field's vitality and ongoing need for structured assessment.

From 2021 onward, the growth trend becomes even more pronounced, with consistent annual increases that reflect expanding global research interest and broader interdisciplinary engagement. The notable rise in 2024 and the dramatic spike in 2025, reaching nearly 200 publications, can be attributed to several factors, including heightened public concern about digital addiction, increased mental health challenges linked to online behaviours, and the expansion of technological tools that allow researchers to investigate online habits more effectively. The COVID 19 pandemic period also contributed indirectly, as extended digital usage intensified concerns around psychological dependency on social platforms. The steep growth in 2025 signals that the topic has transitioned into a mature and mainstream research domain, driven by policy needs, public health relevance, and the increasing availability of empirical data.

2. Which are the top 10 most cited articles in this area of study?

Authors	Title	Year	Source title	Cited by
(Guessoum et al., 2020)	Adolescent psychiatric disorders during the COVID-19 pandemic and lockdown	2020	Psychiatry Research	742
(Torous et al., 2021)	The growing field of digital psychiatry: current evidence and the future of apps, social media, chatbots, and virtual reality	2021	World Psychiatry	700
(Smailhodzic et al., 2016)	Social media use in healthcare: A systematic review of effects on patients	2016	BMC Health Services Research	584

	and on their relationship with healthcare professionals			
(Orben, 2020)	Teenagers, screens and social media: a narrative review of reviews and key studies	2020	Social Psychiatry and Psychiatric Epidemiology	475
(Allcott et al., 2020)	The welfare effects of social media†	2020	American Economic Review	463
(Twenge & Martin, 2020)	Gender differences in associations between digital media use and psychological well-being: Evidence from three large datasets	2020	Journal of Adolescence	363
(Domingues-Montanari, 2017)	Clinical and psychological effects of excessive screen time on children	2017	Journal of Paediatrics and Child Health	350
(Shensa et al., 2017)	Problematic social media use and depressive symptoms among U.S. young adults: A nationally-representative study	2017	Social Science and Medicine	334
(Monacis et al., 2017)	Social networking addiction, attachment style, and validation of the Italian version of the Bergen Social Media Addiction Scale	2017	Journal of Behavioral Addictions	328
(Bozzola et al., 2022)	The Use of Social Media in Children and Adolescents: Scoping Review on the Potential Risks	2022	International Journal of Environmental Research and Public Health	312

Table 3: Citation Distribution of the Leading Articles in Social Media Addiction Research

The analysis of the top cited literature (RQ2) reveals a highly concentrated citation pattern, which is fully detailed in **Table 3**. This concentration demonstrates how foundational studies have anchored the conceptual, clinical, and behavioral understanding of digital usage effects on mental health. The highest impact works serve as methodological and theoretical reference points. For example, the most influential article, Guessoum et al.'s (2020) work on adolescent psychiatric disorders during the pandemic, amassed 742 citations, immediately establishing itself as a key reference for understanding mental health disruptions in times of crisis. Torous et al. (2021) follows closely with 700 citations, synthesizing concepts in digital psychiatry and shaping interdisciplinary discussions on technology's role in mental health.

The prominence of these 2020 and 2021 publications confirms the field's rapid response to urgent global concerns, particularly the heightened mental health vulnerabilities during the COVID-19 pandemic. In contrast, earlier works established foundational pathways: Smailhodzic et al. (2016), with 584 citations, provided a systematic review of social media use in healthcare, while Shensa et al. (2017), cited 334 times, established initial links between problematic social media use and depressive symptoms among young adults. Similarly, the study by Monacis et al. (2017), with 328 citations, provided early validation for the Bergen Social Media Addiction Scale. Collectively, the citation distribution presented in Table 1 confirms that methodological rigor, the use of large representative datasets, and a timely focus on pressing public health issues are the structural mechanisms that reinforce prominence and influence in this field.

3. Which countries rank in the top 10 based on the number of publications?

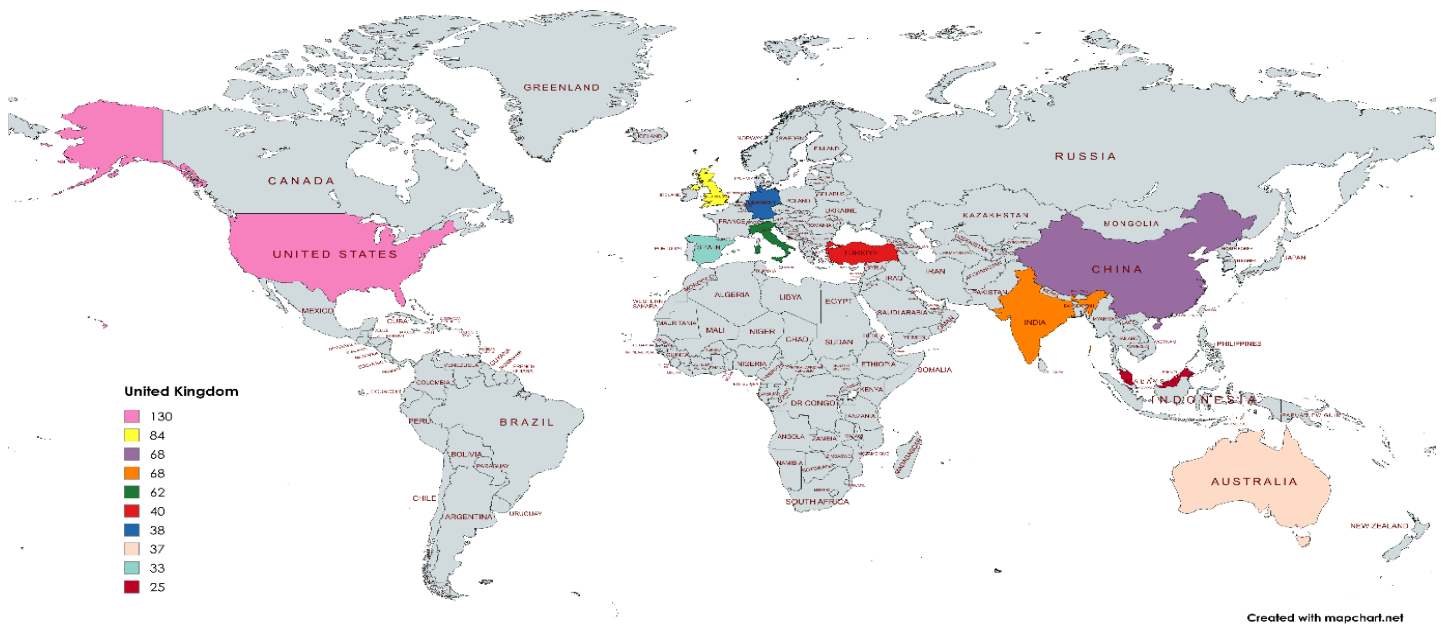


Figure 4: Global Distribution of Research Output on Social Media Addiction and Well-Being

Analysis of the global distribution of research output (RQ3) reveals a pronounced concentration of scholarly activity. As depicted in **Figure 4**, the field is substantially led by the United States (130 documents), which benefits from strong research infrastructure and significant investment in mental health and technology studies. This dominance is followed by the United Kingdom (84), India (68), and China (68). This pattern fundamentally confirms that research productivity is dominated by countries possessing extensive digital infrastructure, high social media penetration rates, and robust national research funding. However, this high concentration of output in North America, Western Europe, and East Asia, while academically productive, introduces a significant limitation regarding cross-cultural generalizability. The current body of knowledge, including its theoretical constructs and empirical findings, is largely derived from these specific cultural, economic, and regulatory contexts. This uneven distribution highlights a major research gap: the pressing need for increased contributions from and comparative studies involving regions currently underrepresented, particularly in South America, Africa, and specific Middle Eastern nations. Filling this void is essential for properly mapping cultural variability in addiction drivers and well-being outcomes, thereby ensuring that digital well-being interventions are culturally tailored and effective globally.

4. What are the popular keywords related to the study?

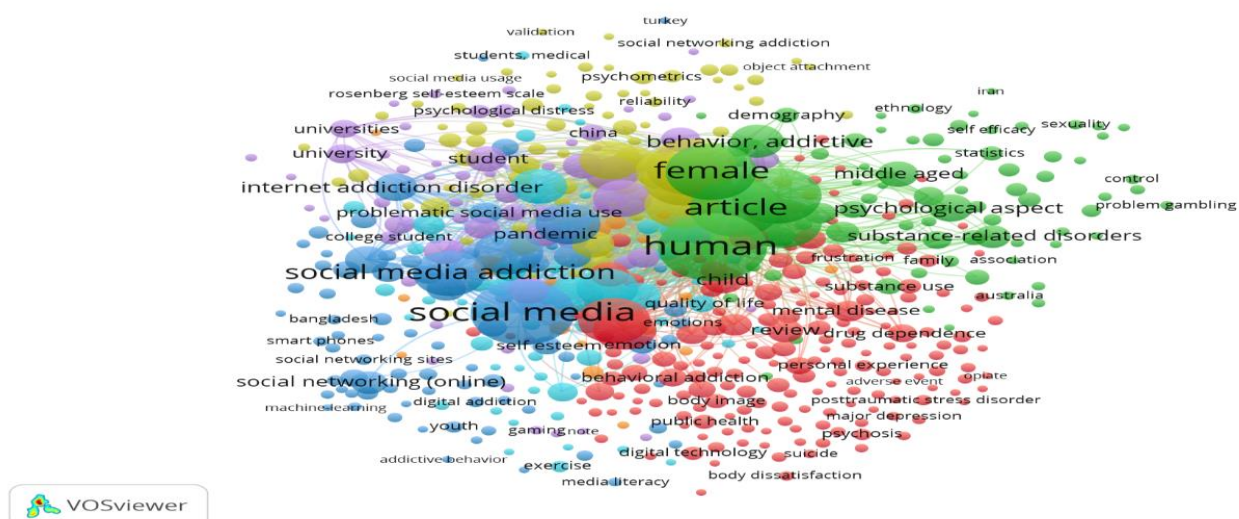


Figure 5: Network Visualization of Author Keyword Co-Occurrence on Social Media Addiction and Well-Being

The conceptual structure of the field, derived from the co-occurrence analysis of author keywords (RQ4), provides high-resolution insight into the field's intellectual architecture. Figure 5 illustrates this structure (based on a minimum occurrence threshold of five, resulting in seven distinct clusters), revealing a tight focus on the clinical and demographic impacts of social media use. High-frequency terms such as “social media addiction,” “psychological well-being,” “mental health,” and specific population descriptors (“adolescent,” “male,” “female”) occupy the central nodes, underscoring the field's primary concern.

Detailed examination shows that the thematic clusters are oriented toward diagnosis, measurement, and correlation. For instance, one major cluster (identified by the color Red) is strongly focused on direct psychological pathology, featuring terms like depression, anxiety, and psychological distress. A second cluster (Green) centers on the addictive behavior mechanisms themselves, including concepts like internet addiction, the fear of missing out (FoMO), and sleep quality. A third, structural cluster (Blue) encompasses terms related to standardized assessments and research methods, such as cross-sectional study, validation, and the Bergen Social Media Addiction Scale.

This prominence of clinical outcome keywords and behavioral constructs is highly indicative of a field that excels overwhelmingly at defining, measuring, and identifying the negative correlates of the problem. However, this thematic structure highlights a major analytical gap: a critical absence of high-frequency keywords related to intervention, treatment, therapy, prevention, or policy is evident in the central clusters. This analytically confirms a significant maturity void: while the research community is proficient at describing the problem, it currently lacks sufficient research dedicated to finding and mapping robust, evidence-based solutions and intervention strategies.

5. What is co-authorship by countries' collaboration?

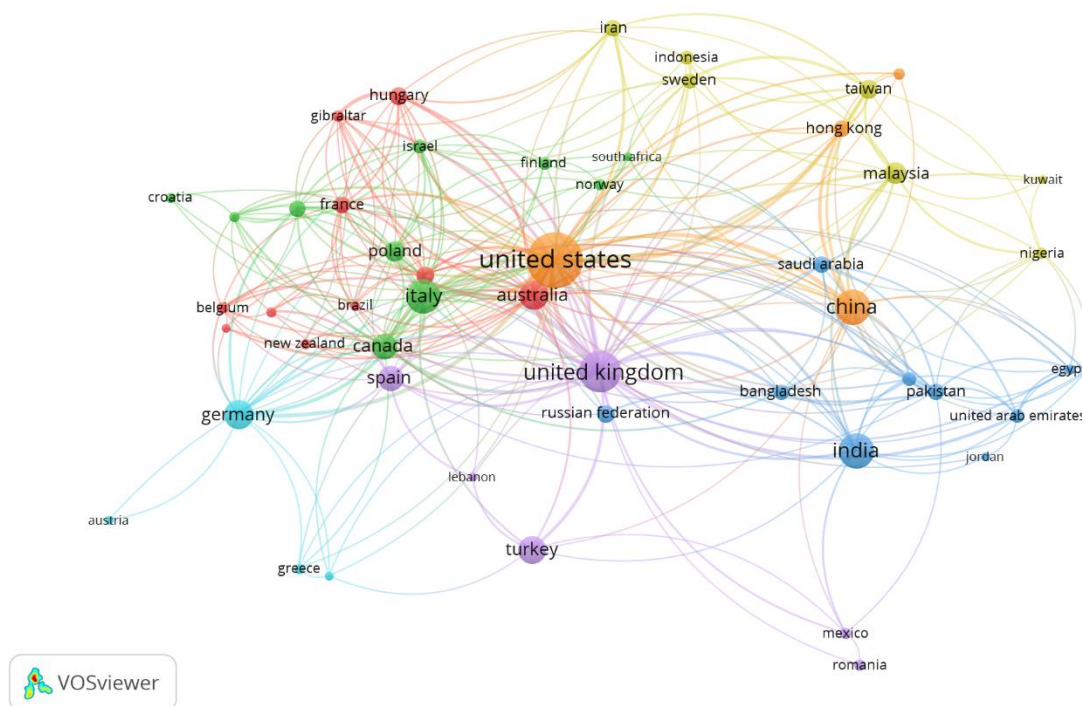


Figure 6: Co-Authorship Network Visualization of Country Collaboration in Social Media Addiction and Well-Being Research

The co-occurrence co-authorship analysis (RQ5) provides a visual map of the global collaborative ecosystem. Figure 6 illustrates a dense, multi-polar international research network structure (based on a minimum occurrence threshold of five, resulting in 53 countries and seven clusters). Countries such as the United States, China, India, and the United Kingdom serve as major collaborative hubs, confirmed by their large node sizes and strong linkages to multiple other nations. The centrality of these nations confirms their leadership, high

productivity, and capacity for sustained cross-border research partnerships. Furthermore, the presence of countries like Malaysia, demonstrating meaningful connections within the Asian networks, confirms the emergence of critical regional perspectives essential for diversifying research inputs.

Analytically, this network structure suggests a strong mechanism for knowledge diffusion, operating primarily from the largest research economies (such as the US and UK) outward. However, the multi-clustered nature of the map suggests that global collaboration is not uniform but is fragmenting into distinct regional alliances, evident in the formation of specific European, Asian, and Middle Eastern networks. While this regionalization could foster valuable, culturally nuanced research by focusing on local contexts, it simultaneously carries a risk: if collaboration across these distinct geographical clusters is not strengthened, it may lead to the conceptual isolation of research themes, potentially hindering the development of a unified and globally applicable theoretical framework.

FUTURE RESEARCH

Based on the identified gaps in the intellectual structure of the field, future research should be explicitly directed toward three priority pathways. The most urgent pathway is the shift from correlational and cross-sectional designs to rigorous longitudinal studies and randomized controlled trials (RCTs). These are essential to establish the causal effects and long-term efficacy of specific therapeutic and educational interventions for social media addiction, thereby generating practical models for clinical and public health application. Furthermore, to enhance the global applicability of theoretical models, future studies must systematically compare the prevalence, mechanisms, and protective factors of SMA across underrepresented geographical and cultural groups. This effort is critical for developing culturally sensitive measurement tools and tailored intervention strategies. Finally, research should move beyond simple correlation testing to develop and test integrated theoretical frameworks. These frameworks must combine existing psychological models of addiction with technological and social contextual factors to create a more holistic, predictive understanding of digital well-being and resilience.

CONCLUSION

This comprehensive bibliometric mapping confirms the field's vigorous expansion and intellectual consolidation around the clinical impacts of social media addiction. Theoretically, the study validates the core linkages between problematic social media use and negative mental health constructs, such as depression and anxiety, reinforcing the need for formal behavioral addiction models tailored to the digital context.

Crucially, the findings yield two significant policy implications that necessitate immediate scholarly and funding redirection. First, the analytical absence of core intervention-related keywords strongly suggests that policymakers and funding bodies must prioritize research dedicated to generating evidence-based solutions. Research funding must be directed towards specific therapeutic and educational initiatives, as the current body of literature is robustly diagnostic but weak in its prescriptive capacity. Second, the concentration of research output in a few dominant economies mandates that international research efforts focus on comparative studies across diverse cultural and regulatory contexts. Policy formulation for digital well-being must explicitly account for cross-cultural variability to ensure interventions are relevant and effective for global populations currently underrepresented in the scientific literature.

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