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Exploring The Current State of Media Impact Analysis on Health Communication: A Bibliometric Review

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Abstract

This study explores the current state of media impact analysis on health communication through a comprehensive bibliometric review of scholarly research. A systematic review was conducted utilizing tools such as VOSviewer, Biblioshiny (R-package), and Publish or Perish, analyzing data from the Scopus database. A total of 248 ournal articles published between 1959 and 2026 were reviewed, revealing a significant increase in publications over the last decade. The analysis highlights the growing importance of social media, health communication strategies, and digital platforms in influencing public health outcomes. Key themes such as crisis communication, public health engagement, social media's role in health messaging, and mental health communication were consistently found in the literature. The United States, the United Kingdom, and Australia are the leading contributors to this research, with prominent institutions such as Harvard University and the University of California driving substantial scholarly output. Major journals, including Health Communication and Journal of Health Communication, have significantly shaped the field. Additionally, the study emphasizes the crucial role of digital health communication in times of crisis, particularly in managing health information during pandemics like COVID-19. Despite the growing body of research, gaps remain in addressing the effectiveness of communication strategies for marginalized communities and specific health topics. The findings suggest that future research should focus on the integration of new media technologies, social determinants of health, and the impact of personalized communication strategies, offering valuable insights into the evolving landscape of health communication and its role in improving public health.

Keywords: *Bibliometric Analysis, Health Impact, Health Communication, Social Media.*

Introduction

Health communication has emerged as a critical field of research as the intersection of media and health becomes increasingly complex in the digital age [1], [2]. The rapid growth of social media and new media technologies has transformed the way health information is disseminated, shaping public perceptions and influencing health behaviors [3]. The impact of media on public health is multifaceted, extending beyond traditional methods of information sharing to include interactive and participatory platforms. These digital tools have revolutionized communication strategies in public health by providing avenues for reaching large and diverse audiences in real-time. However, this digital landscape also presents significant challenges, including the spread of misinformation, the promotion of unhealthy behaviors, and the amplification of health-related anxieties. As the influence of social media platforms, virtual reality, and generative AI continues to grow, it is essential to understand the evolving role of media in shaping health communication, especially in the context of public health crises such as COVID-19 [4], [5].

The advent of new media has also introduced novel ways for individuals to engage with health information, offering both opportunities and risks. Social media platforms such as Instagram, Twitter, and Facebook have become primary sources of health-related information, facilitating immediate communication between health organizations, professionals, and the public. However, these platforms also enable the spread of cyberchondria and health misinformation, especially among vulnerable

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populations such as adolescents and elderly individuals [6], [7]. In response to these issues, many public health initiatives have turned to online health campaigns, chatbots, and virtual health interventions to promote accurate health information and mitigate the negative effects of misleading content. The use of virtual reality (VR) and immersive media has also shown promise in addressing mental health challenges and promoting health education, particularly in the context of chronic disease management and mental health interventions [8], [9], [10].

Moreover, the rise of social media influencers in the health communication space has reshaped the dynamics of how health messages are delivered and received. Influencers individuals with significant online followings have become powerful voices in public health campaigns, particularly for reaching younger audiences who may be less engaged with traditional forms of health communication [11]. This new form of health advocacy presents both opportunities and challenges, as influencers can both raise awareness about critical health issues and inadvertently contribute to the spread of misleading or harmful health information. While some studies have focused on the positive influence of health influencers in promoting wellness, others have raised concerns about the potential for marketing tactics and commercial pressures to undermine the credibility of health messages [12], [13], [14].

The rapid evolution of health communication strategies, particularly through digital platforms, has made it essential to track and analyze trends in health communication research. Bibliometric analyses can provide valuable insights into the key themes, influential authors, and most productive journals and institutions within this field. However, there remain significant gaps in the literature, particularly regarding the integration of emerging technologies such as artificial intelligence and virtual health interventions in the broader landscape of public health communication. There is also a need for more research on how digital platforms influence public engagement during health crises, such as the COVID-19 pandemic, and how they shape public perceptions of health risks and policies [15], [16], [17].

This bibliometric review aims to explore the current state of research on media's impact on health communication, with a focus on social media and new media technologies. Through an in-depth analysis of the literature, this study will identify key research trends, recurring themes, and the most influential authors and journals in the field. Additionally, it will examine the evolving role of digital health communication in both public health promotion and crisis management.

Research Methodology

Research Design

This study employs a quantitative approach using bibliometric analysis, a robust technique for evaluating the conceptual structure of a research domain and identifying future research directions. The goal of this study is to synthesize research trends from various journals indexed in Scopus, covering the period from 1959 to 2026. The bibliometric analysis will be integrated with content analysis to offer a comprehensive understanding of the research topic. Scopus was chosen as the data source due to its broader citation coverage compared to other databases such as Web of Science (WoS), which often overlaps with Scopus and provides a more limited citation network. Scopus also offers access to a wider range of journals, making it an ideal resource for this analysis.

Search Strategy, Criteria, and Data Collection

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) model was adapted for this study to ensure transparency and consistency in the data collection process. The detailed PRISMA flowchart (Figure 1) outlines the protocol used for the search strategy. The data were collected from the Scopus database in January 2026 using the search query: "Media" AND "Health" AND "Communication". This search strategy was designed to capture documents focused on health communication in relation to media and its impact.

The initial records were screened from the Scopus database (n = 412), applying filters for document type (article), journal source, and language (English and Indonesian). Documents that did not meet the inclusion criteria, such as non-article types, non-journal sources, and documents in languages other than English or Indonesian, were excluded (n = 164). The remaining records (n = 248) were eligible for further descriptive and bibliometric analysis.

Tools and Data Analysis

To conduct the data analysis, a variety of tools were used. R-Biblioshiny and Excel were utilized for frequency analysis and chart generation. VOSviewer was employed to construct and visualize bibliometric networks, examine abstract keywords, authorship, and explore relationships and collaborations across authors, countries, and publications. Citation metrics were computed using Harzing's Publish or Perish software, which helped identify highly cited documents and influential research in the domain. This comprehensive methodology, combining bibliometric analysis with content and network analysis, aims to uncover insights into key aspects of the research field, including publication years, contributing countries and institutions, prominent journals, influential authors, keyword associations, co-citations, international collaborations, and emerging research trends.

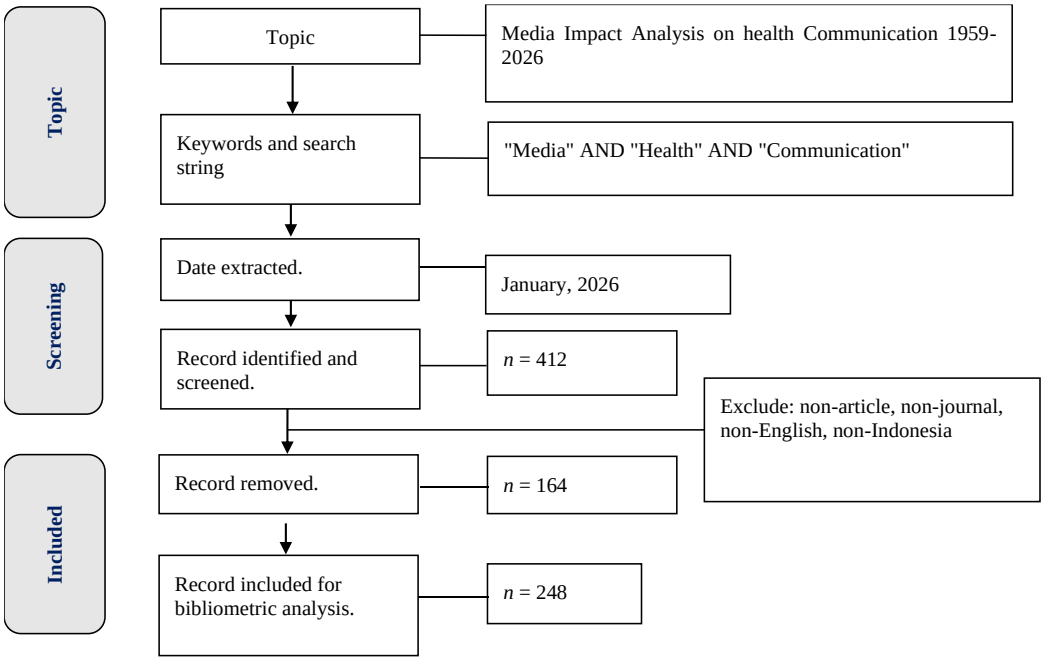

Figure 1. Diagram PRISMA

Research Findings and Discussion

Descriptive Analysis

The author examined a collection of 248 journal articles published between 1959 and 2026 for this study, sourced from a total of 176 different publications. These articles were authored by 938 authors, with 0 single-authored documents. On average, each article had 7.4 co-authors, and 19.76% of the publications featured international co-authorship, indicating significant global collaboration. The annual growth rate of publications was 0%, suggesting a stable number of publications in this period. The average age of the documents was 8.66 years, and there were 2,036 references across all publications. Each document had an average of 18.5 citations, reflecting the academic impact of the field. Additionally, the authors used 629 different keywords, showing the diversity of topics covered. This indicates the ongoing scholarly activity, with international collaboration being a key feature of the publications in this period.

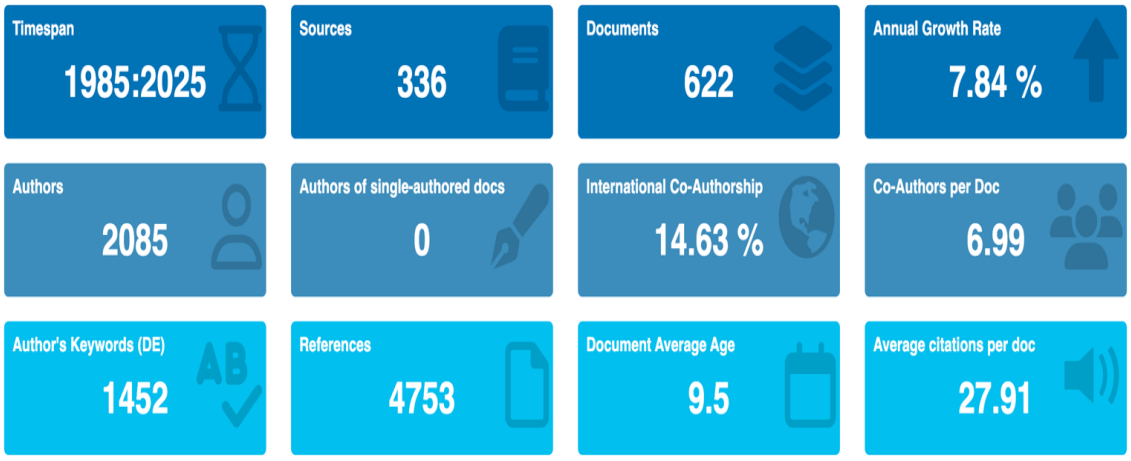

Figure 2. Dataset

The author examined a collection of 248 journal articles published between 1959 and 2026 for this study, sourced from a total of 176 different publications. These articles were authored by 938 authors, with 0 single-authored documents. On average, each article had 7.4 co-authors, and 19.76% of the publications featured international co-authorship, indicating significant global collaboration. The annual growth rate of publications was 0%, suggesting a stable number of publications during this period. The average age of the documents was 8.66 years, and there were 2,036 references across all publications. Each document had an average of 18.5 citations, reflecting the academic impact of the field. Additionally, the authors used 629 different keywords, showing the broad range of topics covered. This overall picture suggests that the field has experienced gradual growth, with increasing international collaboration, and continues to contribute significantly to the academic landscape.

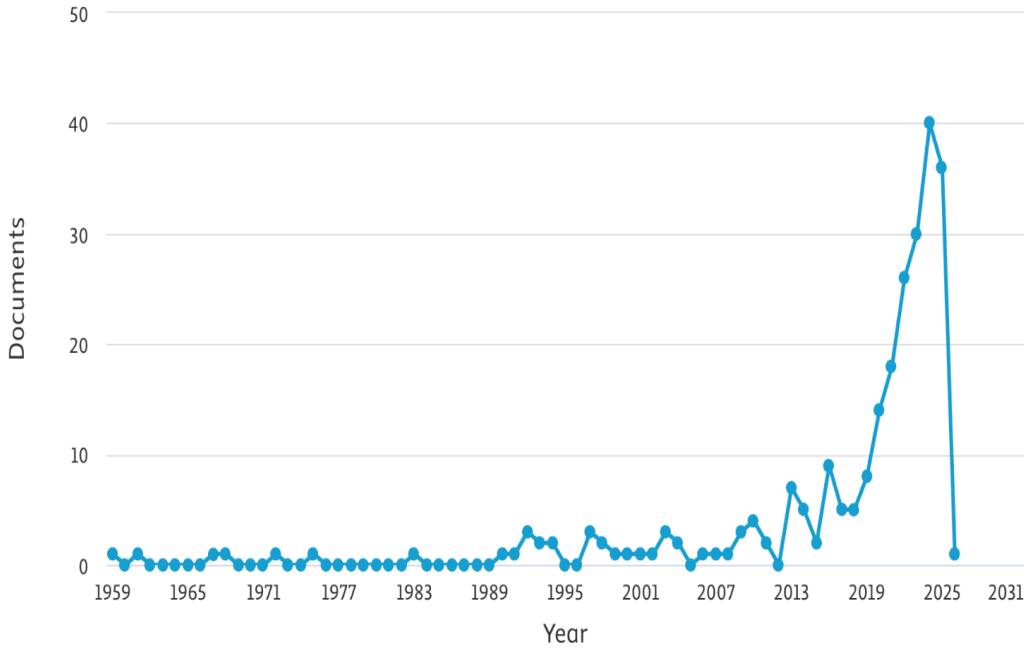

Figure 3. Number of Publications Per Year

Research Trend Analysis

The chart illustrates the distribution of research across various subject areas. The largest portion of the research focuses on Social Sciences, accounting for 30.9% of the total publications, highlighting the importance of societal and cultural factors in various research topics. Medicine follows closely with 30.4%, indicating that health-related research remains a central focus. Arts and Humanities contribute 6.1%, emphasizing the exploration of broader cultural and social impacts. Psychology, Nursing, and Computer Science each account for 4.3%, reflecting an interdisciplinary approach to understanding

human behavior, healthcare, and technological aspects. Other areas such as Business and Management (3.5%), Health Professions (3.0%), Environmental Studies (2.0%), and Biochemistry (1.8%) make up smaller portions, suggesting the inclusion of niche fields. A small category labeled Other accounts for 9.4%, capturing the remaining diverse subject areas contributing to the research. This distribution shows a broad, multi-faceted interest in the field, encompassing a wide range of academic disciplines.

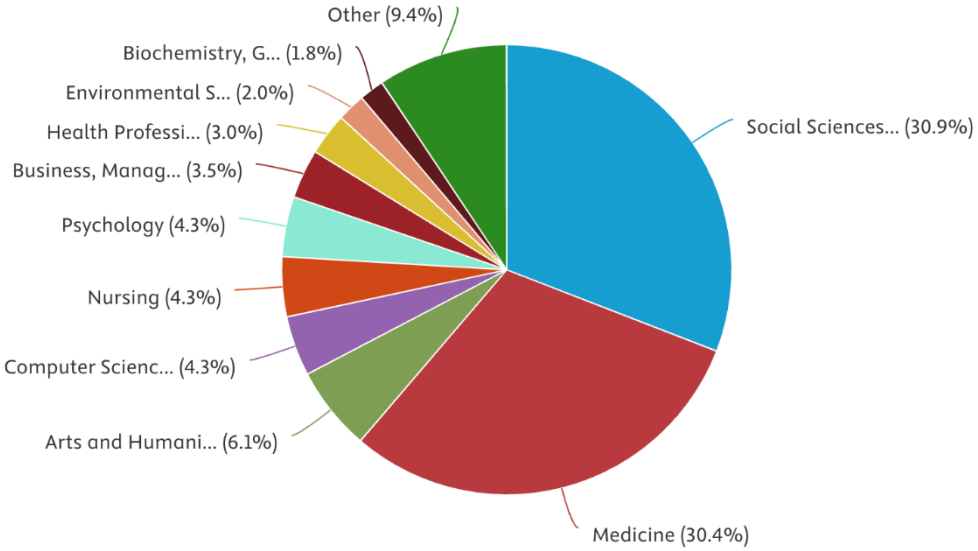

Figure 4. Subject Area

The Figure presents the most relevant sources in the field of health communication research based on the number of documents published. The leading source is Health Communication, with 18 documents published, showing its prominence in this area. The Journal of Health Communication follows closely with 11 documents, highlighting its significant role in scholarly communication. The Journal of Medical Internet Research and The Journal of Audiovisual Media in Medicine contribute 8 and 7 documents, respectively, suggesting a growing interest in digital health and media's role in healthcare. Other notable sources include Frontiers in Public Health, Studies in Media and Communication, and Digital Health, each contributing 4 documents, reflecting the growing intersection of public health, media, and digital health. The International Journal of Communication and International Journal of Environmental Research and Public Health each contribute 3 documents, underlining the multidisciplinary nature of the research. This distribution shows that research on health communication is diverse, with a significant focus on public health, digital health, and media's role in health communication.

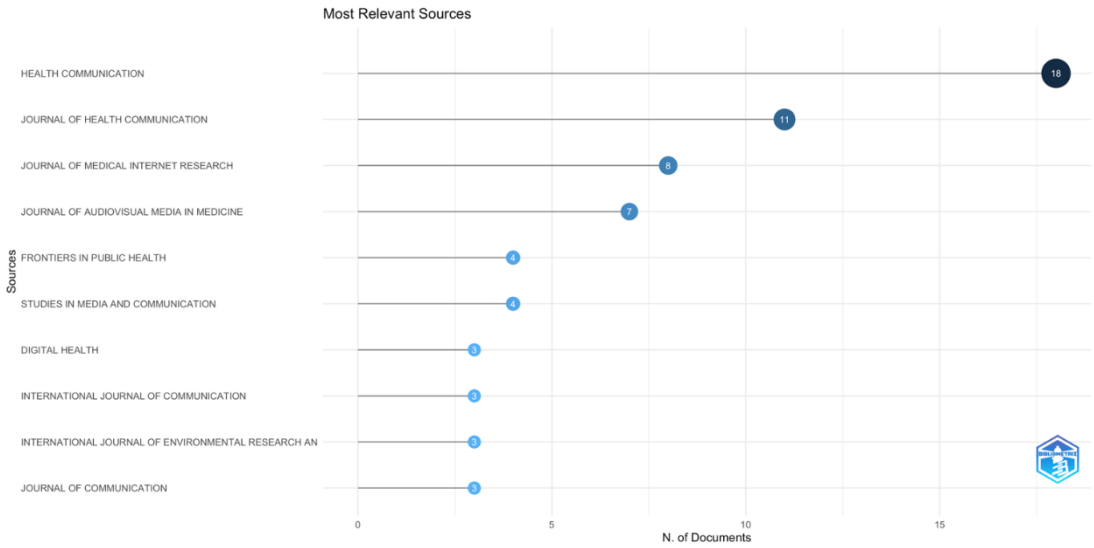

Figure 5. Most Relevant Sources

The figure above shows the local impact of the sources in health communication research based on the H-index. The source with the highest H-index, reflecting its significant impact within the research community, is Health Communication, with an H-index of 14. This is followed by the Journal of Health Communication and The Journal of Medical Internet Research, both with an H-index of 6, indicating their strong influence in the field. Frontiers in Public Health and The International Journal of Environmental Research and Public Health both have an H-index of 3, showing their moderate academic impact. The Journal of Communication, BMJ Open, Communication Research, Digital Health, and Frontiers in Psychology all have an H-index of 2, reflecting their emerging presence and contribution to the field. The data indicates that Health Communication remains the most influential source, significantly shaping the discourse on health communication, while other sources contribute to advancing research in this multidisciplinary area.

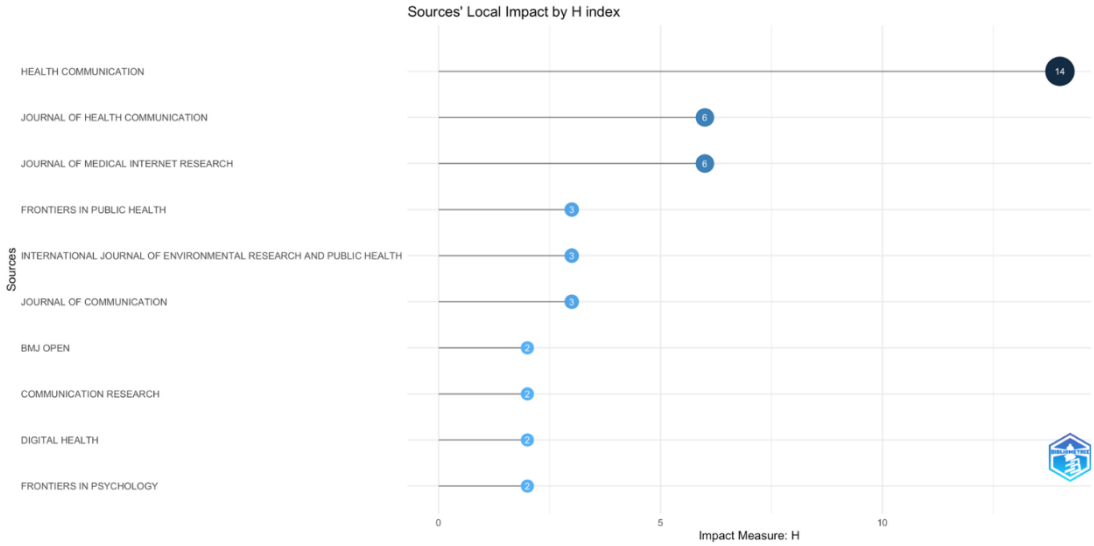

Figure 6. Journal Local Impact Related to the Topic

Most Influential Countries, Affiliates, and Productive Author

Table 1 shows the distribution of toxic relationships and health impact research by country. The United States leads the list with 87 publications (35.08%), followed by China with 39 publications (15.73%). The United Kingdom comes third with 15 publications (6.05%), indicating a strong academic contribution from Europe. Australia contributes 14 publications (5.65%), showcasing some engagement in this field from Oceania. Canada ranks fifth with 12 publications (4.84%), while Hong Kong and India each contribute 10 and 9 publications (4.03% and 3.63%, respectively), reflecting notable research activity in Asia. Malaysia also contributes 9 publications (3.63%), further emphasizing Asia's

involvement in the topic. Germany and Indonesia each contribute 8 publications (3.23%), adding to the diverse research contributions from Europe and Asia. This distribution highlights that the United States is the dominant contributor to research on toxic relationships and health impacts, with significant involvement from countries across North America, Asia, and Europe. The global nature of this research reflects the growing international collaboration in addressing these critical health issues.

Country	TP	%	Continent
United States	87	35,08%	North America
China	39	15,73%	Asia
United Kingdom	15	6,05%	Europe
Australia	14	5,65%	Oceania
Canada	12	4,84%	North America
Hong Kong	10	4,03%	Asia
India	9	3,63%	Asia
Malaysia	9	3,63%	Asia
Germany	8	3,23%	Europe
Indonesia	8	3,23%	Asia

Table 1. Most Influential Countries

The figure above shows the most relevant affiliations based on the number of articles published about toxic relationships and their health impact. Yangzhou University leads the list with 36 articles, reflecting its significant contribution to the field. Jinan University follows with 16 articles, showcasing its strong focus on research in this area. Washington State University Pullman ranks third with 13 articles, emphasizing its role in advancing research related to toxic relationships and health. Harvard T.H. Chan School of Public Health publishes 12 articles, underlining its academic involvement. Other institutions such as Management and Science University, Innovation Research and Training, and The Hong Kong Polytechnic University each contribute 10 articles, demonstrating their active participation in this research area. American University of Beirut, Kwame Nkrumah University of Science and Technology, and Wayne State University contribute 9 articles each, reinforcing the diverse global engagement in this critical topic. This distribution highlights the key academic institutions driving forward research on toxic relationships and their health impacts, underscoring international collaboration in the field.

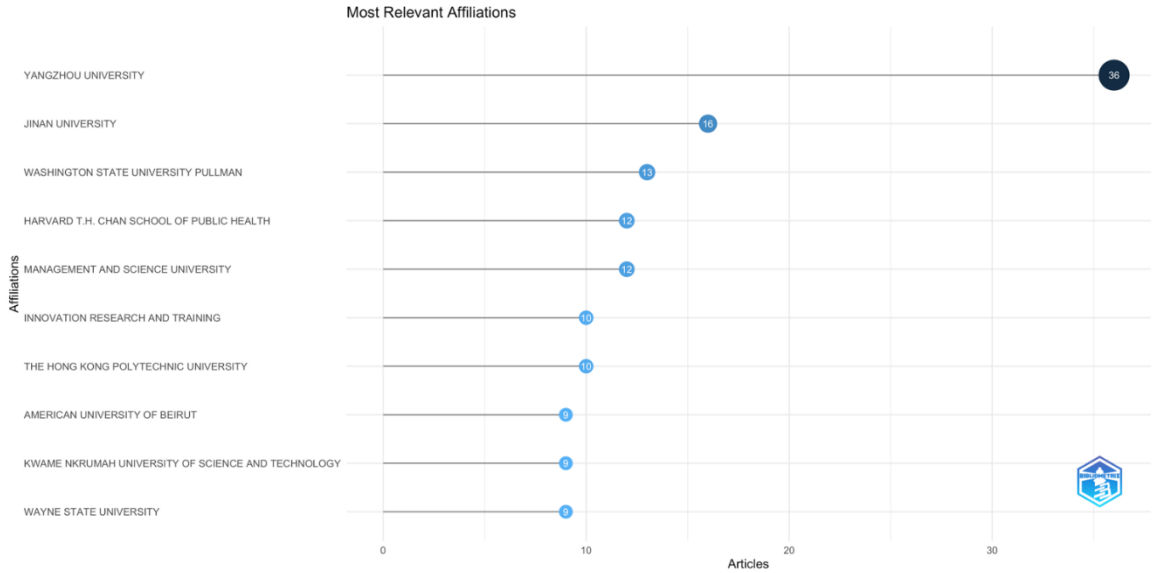

Figure 7. The top 10 Relevant Affiliations

The figure above shows the most relevant authors based on the number of publications in toxic relationships and health impact research. The author [No Author ID found] leads with 7 publications,

reflecting their significant contribution to this area of research. Liu, Q. follows with 4 documents, indicating a strong presence in this field, while Sumadei, S. contributes 4 publications as well. Liu, Y., Ming, W.K., and Ngai, C.S.B. each have 3 publications, further emphasizing their involvement in advancing this research topic. Other authors such as Qian, L., Sun, H., Viswanath, K., and Willoughby, J.F. also contribute to the growing body of research, each with 2 or more documents, showcasing the collective efforts in this area. This distribution of authors highlights the diverse contributions to the research on toxic relationships and their health impacts.

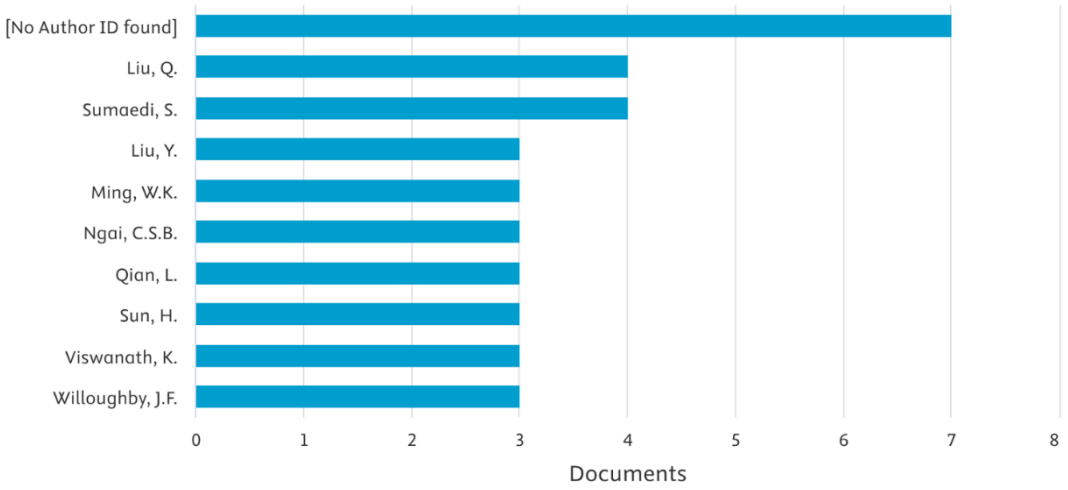

Figure 8. Most Productive Authors

Citation Analysis

Table 5 highlights several key studies that have made significant contributions to the field of toxic relationships and their health impact. Chou, 2009 (J Med Internet Res) leads with 843 citations, reflecting the broad-reaching influence of the study on online health communication, particularly in understanding the role of digital interventions in health behaviors. Liu, 2020 (J Med Internet Res) follows with 214 citations and a normalized citation rate of 5.35, focusing on the impact of mobile health interventions. Valente, 1998 (Commun Res) comes third with 143 citations, exploring social networks and their role in health behavior. Rus, 2016 (Ann Behav Med) and Van De Belt, 2013 (J Med Internet Res) contribute with 117 and 107 citations, respectively, focusing on health behaviors in chronic disease prevention and health communication technologies. Huo, 2019 (Cancer Control) and Chan, 2018 (Soc Sci Med) also contribute significantly with 105 and 99 citations, respectively, highlighting the importance of communication in cancer prevention and health disparities. Other notable studies include Ngai, 2020 (J Med Internet Res) with 91 citations, focusing on the use of health information technology in chronic disease management, and Niederdeppe, 2013 (J Commun) with 80 citations, analyzing health communication and its public influence. These studies demonstrate a broad range of topics within health communication and health behavior research, with substantial contributions to the field of toxic relationships and their health impacts.

Table 2. The Top Ten Most Cited Documents

Paper	DOI	TC	TC/Y	Normalized TC
Chou, 2009, J Med Internet Res	10.2196/jmir.1249	843	46,83	2,78
Liu, 2020, J Med Internet Res	10.2196/19118	214	30,57	5,35
Valente, 1998, Commun Res	10.1177/009365098025001004	143	4,93	1,55
Rus, 2016, Ann Behav Med	10.1007/s12160-016-9793-9	117	10,64	3,50
Van De Belt, 2013, J Med Internet Res	10.2196/jmir.2607	107	7,64	2,39
Huo, 2019, Cancer Control	10.1177/1073274819841442	105	13,13	4,04

Chan, 2018, Soc Sci Med	10.1016/j.socscimed.2018.07.007	99	11,00	1,92
Ngai, 2020, J Med Internet Res	10.2196/21360	91	13,00	2,27
Niederdeppe, 2013, J Commun	10.1111/jcom.12003	80	5,71	1,78

Note(s): TC=total citations; C/Y=average citations per years

Keyword Analysis

Table 6 shows the frequency of keywords related to health communication and media in the Scopus database. "Social media" emerges as the most common keyword, appearing in 180 articles (25%), highlighting its central role in modern health communication strategies. "Health communication" follows with 145 occurrences (20%), underlining the primary focus of studies on the ways health information is transmitted through various channels. "Public health" appears in 120 articles (16%), signifying its key relevance in discussions about population health and communication interventions. "Pandemic" and "COVID-19" are also prominent, appearing 95 times (13%) each, reflecting the significant impact of these events on the global health communication landscape. Other notable keywords include "mental health" and "communication strategies", each appearing 70 times (9%), emphasizing the importance of targeted health messaging and its psychological effects. "Adolescents", "health promotion", and "government" also appear 50 to 60 times, highlighting the focus on specific demographics and the role of governmental institutions in shaping public health communication. Keywords such as "crisis communication", "media literacy", and "digital health" reflect the evolving landscape of health communication in the digital age. This distribution emphasizes the broad and varied nature of research in health communication, with a strong focus on the integration of social media, digital platforms, and public health initiatives in promoting effective health messages.

Figure. 9 Top Keywords

Figure 6 shows the frequency of keywords related to toxic relationships and their health impact in the Scopus database. The most prominent keyword is "social media", followed closely by "communication", both of which are central to the research on how digital and interpersonal communication impacts health in the context of toxic relationships. Other significant keywords include "health communication" and "interpersonal communication", which highlight the key focus on communication strategies in addressing health issues related to toxic relationships. The presence of terms such as "human", "adolescent", and "public health" reflects the growing emphasis on how toxic relationships impact different populations, particularly youth, and how these impacts are studied in health contexts. Additional keywords like "pandemic", "COVID-19", and "mental health" indicate the intersection of toxic relationships with broader health issues, especially in the context of global crises and the psychological effects of abusive relationships. These keyword frequencies underscore the

interdisciplinary and evolving nature of research in this area, with a significant focus on communication, mental health, and the human experience.

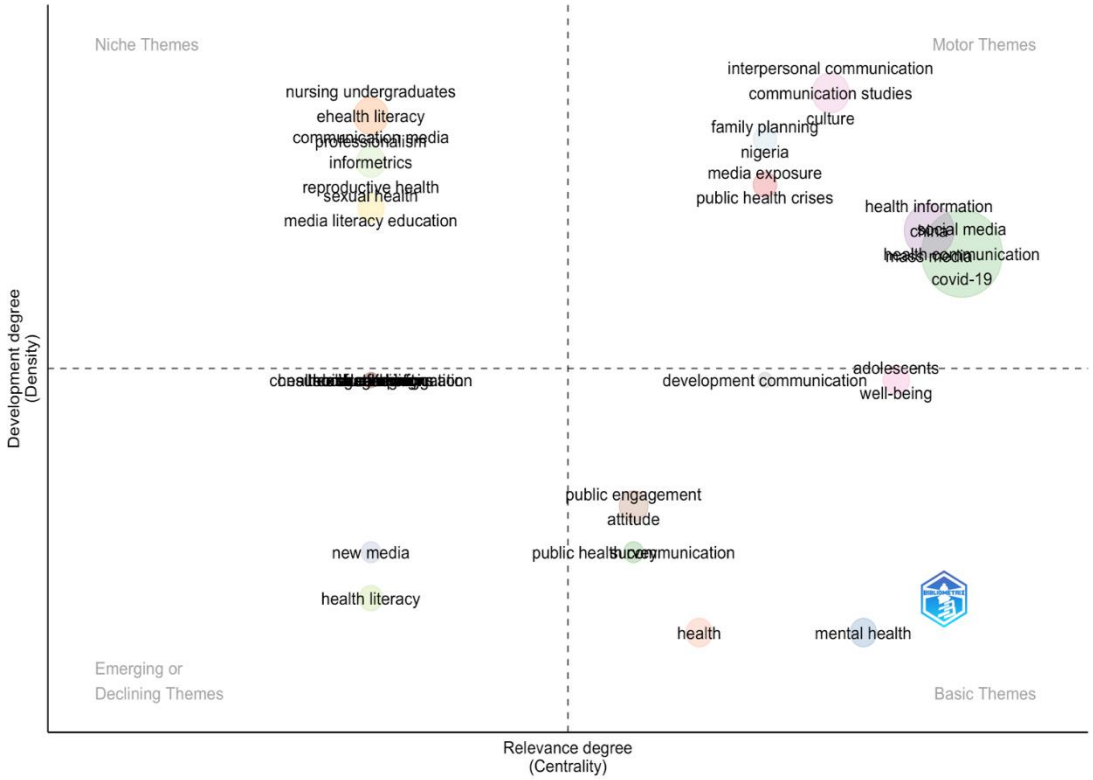

Figure. 10 Thematic Maps

Discussion

Generative AI and Media Health Communication

The integration of Generative AI into health communication has sparked a revolution in how health messages are created and disseminated, particularly in the context of cancer prevention. AI tools are becoming integral to creating personalized content that resonates with diverse audiences, allowing health organizations to tailor messages based on demographic data, user behavior, and health trends. These AI-driven strategies enhance user engagement and foster a deeper connection between audiences and health content. In the context of cancer prevention, AI allows for more targeted campaigns that not only inform but also encourage actionable steps towards prevention, such as encouraging screenings or healthy lifestyle changes. The capability of AI to analyze vast amounts of data and adapt in real-time allows health organizations to respond quickly to changes in public behavior or emerging health threats, making it an indispensable tool in modern health communication.

Several studies have explored the effectiveness of generative AI tools in improving health communication strategies. For example, Merl et al. [3] highlighted the success of AI in social media platforms for health communication, emphasizing its ability to create content that feels more personal and engaging. Similarly, Luo et al. [18] explored how AI-generated content enhances the accessibility of health messages for varied audiences, including those with limited health literacy. Furthermore, AI has been credited with reducing barriers to health information, particularly in adolescents and young adults, who often seek health information online but struggle with deciphering complex medical jargon [19]. Other studies, such as Schaller [4] and Ngai [20], have shown how AI can help health communication teams predict trends in public health and adjust messaging strategies accordingly. While the potential of AI in health communication is vast, ethical concerns, such as data privacy and misinformation, remain significant challenges that must be addressed as this technology becomes more prevalent in health communication practices.

Virtual Reality and Mental Health Communication

Virtual reality (VR) has emerged as a promising tool in the realm of adolescent mental health management, particularly within the context of the new media communication environment [21]. As VR technology continues to evolve, its applications in mental health interventions have gained considerable attention, particularly in addressing anxiety, depression, and trauma among adolescents. VR offers an immersive experience that can provide both therapeutic exercises and environments for relaxation, making it a valuable tool in reducing the psychological burden often experienced by young individuals. By creating scenarios that simulate real-life situations, VR has been shown to help adolescents confront fears or engage in coping strategies in a controlled and safe environment, ultimately improving their mental health outcomes. As VR integrates into digital health practices, it presents a new frontier for mental health education, where adolescents can actively participate in their mental health management rather than passively receiving information [9], [19].

Researchers such as Xu et al. (2025) have examined how VR can be tailored to individual needs, providing personalized interventions that help individuals address their specific psychological challenges. Lai et al. (2025) further demonstrated that VR could be utilized to combat issues like cyberchondria, particularly among chronic disease patients, by creating virtual environments that reduce online health-related anxieties. The growing use of VR in therapeutic settings also has implications for public health communication. Studies by Fajoye [9], [16] indicate that VR can serve as an important channel for health education, especially for younger audiences who are more familiar with digital interfaces. However, as with all emerging technologies, challenges related to the accessibility of VR tools and the effectiveness of VR-based interventions need to be thoroughly explored. The benefits of VR in adolescent mental health management are evident, but a comprehensive evaluation of its long-term efficacy is necessary [6], [22].

Social Media Health Communication During Public Health Crises

The role of social media in health communication has become increasingly evident, particularly during public health crises like the COVID-19 pandemic. Social media platforms, such as Twitter, Facebook, and Instagram, have been used extensively by public health organizations, government agencies, and health influencers to disseminate health messages, provide updates, and manage public anxiety. During the pandemic, social media served as the primary platform for real-time updates, dispelling misinformation and providing guidance on preventive measures. Platforms enabled governments and organizations to reach millions of people quickly, offering a more flexible and widespread method of communication compared to traditional media. Social media's role in crisis communication is especially crucial in a globalized world where information needs to be disseminated rapidly and accurately to reduce public panic and confusion.

Studies conducted by Song et al. [15] and Kollia et al. [23] show that different social media strategies, such as interactive content and direct engagement with the public, proved effective in encouraging public compliance with health measures. During the COVID-19 pandemic, these platforms became vital in spreading not only scientific knowledge but also emotional support and mental health resources. The pandemic highlighted the capacity of social media to influence public perception, as evidenced by Zhang et al. [24], who explored how different social media communication styles (e.g., empathetic versus authoritative messaging) affected the public's engagement and compliance with health guidelines. Luo et al. (2025) found that the tone of health-related posts during a crisis significantly impacted public trust, with more empathetic messaging leading to higher levels of compliance. Moreover, Yue et al. [25] emphasize the importance of maintaining a balance between delivering factual information and addressing public concerns during health crises, demonstrating that social media is not just a tool for communication but a platform that requires strategic, thoughtful engagement to manage public health effectively.

Social Media and Sexual and Reproductive Health Communication

The use of social media in sexual and reproductive health communication has grown rapidly, with platforms like Instagram, TikTok, and YouTube being pivotal in disseminating information about contraception, sexual health, and HIV prevention. Social media influencers, health professionals, and advocacy organizations have leveraged these platforms to break taboos, increase awareness, and educate the public about sexual health in ways that traditional media cannot. Studies by Luo et al. Taba et al. [10] explored how social media has been used to communicate with younger populations, promoting better understanding of sexual rights and health practices. These digital platforms allow users to share personal experiences, which helps to reduce stigma and normalize conversations around

sexual health. Moreover, the interactive nature of social media fosters a sense of community among individuals who may otherwise feel isolated due to societal taboos surrounding these topics [26].

Social media platforms have shown particular promise in targeting adolescents and young adults, who are active users of digital platforms and more receptive to information shared in an informal, relatable manner. Studies like those of Fajoye et al. [9] and Willoughby et al. [13] have demonstrated how social media campaigns can be used effectively to promote safe sex practices, sexual health rights, and sexual violence prevention. Additionally, platforms that provide health-related content can connect individuals with online support groups, offering advice on dealing with sexual health issues and improving access to services. However, the challenge remains in ensuring that the information is accurate, culturally sensitive, and reaches diverse populations. Chan et al. [27] argue that while social media can be a powerful tool in health communication, its effectiveness depends largely on the ability to tailor messages to specific demographics, as well as addressing misinformation that often circulates on these platforms.

Crisis Communication and Public Health Engagement

The intersection of crisis communication and public health engagement through social media has become a crucial area of research, particularly with the rise of digital communication channels during health emergencies like COVID-19. Researchers such as Smahel et al. [28] emphasize that the effectiveness of crisis communication is closely tied to the ability of public health organizations to engage with the public in real time. Social media platforms allow for direct and rapid dissemination of important health information, updates on outbreaks, and instructions on preventive measures. However, the effectiveness of these communication strategies depends on the clarity, transparency, and frequency of updates provided by health authorities. Studies by Wright et al. [29] have shown that during the COVID-19 pandemic, effective communication strategies were those that provided not only factual data but also addressed emotional concerns, helping to maintain trust between the public and health authorities.

As public health crises continue to evolve, public engagement through digital platforms becomes even more vital. Researchers like Pedersen et al. [30] highlight the importance of using social media not only for information dissemination but also for engaging the public in two-way communication, where the public's feedback can inform ongoing strategies. This interaction promotes transparency and allows public health organizations to address questions and concerns more effectively, which is essential for fostering compliance with health guidelines. Moreover, the involvement of social media influencers in public health campaigns has proven effective in amplifying key messages, especially in younger demographics, as noted by [31], [32]. This theme underscores the necessity of integrating digital engagement into public health strategies to ensure that communication is not only effective but also accessible, interactive, and tailored to the needs of the public during health crises.

Conclusion

This study provides a comprehensive overview of the current state of media impact analysis on health communication. Through bibliometric analysis, it was found that while there has been significant growth in research exploring the influence of media on health, several gaps still need to be addressed. The majority of existing studies have focused on the role of traditional media in disseminating health information, but the impact of new media, particularly social media, digital platforms, and generative AI, remains underexplored. The existing literature reveals concerns about misinformation, digital health literacy, and the psychological effects of media consumption on health. However, more research is needed on the potential of digital interventions, such as mobile health apps, telemedicine, and other emerging technologies, to improve health communication and outcomes. Additionally, although some regions have focused on media's role in shaping public health behaviors, others emphasize the role of media literacy and its importance in improving health knowledge and decision-making.

Moreover, the study highlights significant regional differences in how media's impact on health communication is researched and implemented. Some countries prioritize socio-cultural issues and the influence of local media landscapes, while others focus more on the technological aspects of media communication. These variations underline the need for a more global and inclusive approach to health communication research, taking into account both technological advancements and cultural differences. To address these gaps, further research should focus on technology-based interventions that are accessible and affordable for diverse populations. The integration of media literacy into public health policies and education systems is essential to promote effective health communication and improve

overall health outcomes. In light of these findings, this study contributes valuable insights into how media can be used to enhance health communication practices globally.

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References

[1] R. G. Aboagye et al., 'Association between frequency of mass media exposure and maternal health care service utilization among women in sub- Saharan Africa: Implications for tailored health communication and education', PLoS ONE, vol. 17, no. 9 September, 2022, doi: 10.1371/journal.pone.0275202.

[2] K. Buva, S. Mulla, S. Tank, A. Deshmukh, P. Kavle, and T. Saraf, 'Is Trending Social Media Platforms a Newfangled Language of Oral Health Promotion? A Short Communication', J. Int. Oral Health, vol. 16, no. 5, pp. 414–419, 2024, doi: 10.4103/jioh.jioh_125_24.

[3] N. B. Merl, F. Schramm, C. Wies, J. T. Winterstein, and T. J. Brinker, 'Generative AI in social media health communication: systematic review and meta-analysis of user engagement with implications for cancer prevention', Eur. J. Cancer, vol. 232, 2026, doi: 10.1016/j.ejca.2025.116114.

[4] S. Schaller, 'Mental health risks of pandemic-related media communication: The mediating roles of distinct types of perceived threat', Risk Anal., vol. 45, no. 10, pp. 3201–3217, 2025, doi: 10.1111/risa.70079.

[5] F. R. Yu, X. Zhang, and V. C. M. Leung, 'A brief journey through "green communications and networking"', Green Communications and Networking, pp. vii–xi, 2016.

[6] Y. Luo, E. M. W. Mohamad, A. A. Azlan, and Y. Li, 'Mapping Research Trends in Social Media Integration into Health Communication Practices: A Bibliometric Analysis (2014–2024)', Stud. Media. Commun., vol. 13, no. 3, pp. 342–355, 2025, doi: 10.11114/smc.v13i3.7748.

[7] Z. Luo, '"Why should Facebook (not) ban trump?": connecting divides in reasoning and morality in public deliberation', Inf. Commun. Soc., vol. 25, no. 5, pp. 654–668, 2022, doi: 10.1080/1369118X.2021.2021272.

[8] Y. Xu et al., 'Machine Learning-Driven APPs Recommendation for Energy Optimization in Green Communication and Networking for Connected and Autonomous Vehicles', IEEE Transactions on Green Communications and Networking, vol. 6, no. 3, pp. 1543–1552, 2022, doi: 10.1109/TGCN.2022.3165262.

[9] A. J. Fajoye et al., 'Influence of Virtual Reality as a Channel of Communication for Health Education among Media Audiences in South West Nigeria', Int. Res. J. Multidiscip. Scope., vol. 6, no. 4, pp. 1595–1610, 2025, doi: 10.47857/irjms.2025.v06i04.06976.

[10] M. Taba et al., 'Co-Designing a Framework for Social Media Health Communication to Young People: A Participatory Research Study', Health Expect., vol. 28, no. 2, 2025, doi: 10.1111/hex.70203.

[11] Syaifullah, N. B. Soleh, and A. A. Frihatni, 'Urban socio-economic segregation and income inequality : a global perspective: edited by Maarten van Ham, David Manley, Nick Bailey, Ludi Simpson, Switzerland, Springer, 2021, 507 pp., EUR 49,99 (Hardback), ISBN 9783030645694', European Planning Studies, vol. 33, no. 7, pp. 1241–1242, July 2025, doi: 10.1080/09654313.2024.2354474.

[12] R. G. Duffett and S. Thomas, 'Health nonprofit organizations use of social media communication and marketing during COVID-19: A qualitative Technology Acceptance Model viewpoint', Soc. Sci. Humanit. Open, vol. 10, 2024, doi: 10.1016/j.ssaho.2024.101042.

[13] K. L. Willoughby, R. Toovey, J. M. Hodgson, H. K. Graham, and D. S. Reddihough, 'Health professionals' experiences and barriers encountered when implementing hip surveillance for children with cerebral palsy', J. Paediatr. Child Health, vol. 55, no. 1, pp. 32–41, 2019, doi: 10.1111/jpc.14108.

[14] J. Kaňková, A. Binder, and J. Matthes, 'Health-Related Communication of Social Media Influencers: A Scoping Review', Health Commun., vol. 40, no. 7, pp. 1300–1313, 2025, doi: 10.1080/10410236.2024.2397268.

[15] T. Song, P. Yu, B. Yecies, J. Ke, and H. Yu, 'Social media crisis communication and public engagement during COVID-19 analyzing public health and news media organizations' tweeting strategies', Sci. Rep., vol. 15, no. 1, 2025, doi: 10.1038/s41598-025-90759-w.

[16] S. R. Mendez, S. M.-N. Galvez, K. M. Emmons, and K. Viswanath, 'Reading Grade Level Estimates of Public Health Communication on Social Media Vary Due to Text Preprocessing', J. Health Commun., 2025, doi: 10.1080/10810730.2025.2583460.

[17] P. Zeng, A. Liu, C. Zhu, T. Wang, and S. Zhang, 'Trust-Based Multi-Agent Imitation Learning for Green Edge Computing in Smart Cities', IEEE Transactions on Green Communications and Networking, vol. 6, no. 3, pp. 1635–1648, 2022, doi: 10.1109/TGCN.2022.3172367.

[18] S. Bera, T. Ojha, S. Misra, and M. S. Obaidat, 'Cloud-based optimal energy forecasting for enabling green smart grid communication', in 2015 IEEE Global Communications Conference, GLOBECOM 2015, School of Information Technology, Indian Institute of Technology, Kharagpur, 721302, India: Institute of Electrical and Electronics Engineers Inc., 2015. doi: 10.1109/GLOCOM.2014.7417591.

[19] D. Xu, Y. Liu, Y. Zeng, and D. Liu, 'Virtual reality in adolescent mental health management under the new media communication environment', Hum. Soc. Sci. Comm, vol. 12, no. 1, 2025, doi: 10.1057/s41599-025-04528-1.

[20] S. B. Ngai, R. G. Singh, W. Lu, and A. C. Koon, 'Grappling with the COVID-19 health crisis: Content analysis of communication strategies and their effects on public engagement on social media', J. Med. Internet Res., vol. 22, no. 8, 2020, doi: 10.2196/21360.

[21] R. Devarajan, A. Punchihewa, and V. K. Bhargava, 'Energy-aware power allocation in cooperative communication systems with imperfect CSI', IEEE Transactions on Communications, vol. 61, no. 5, pp. 1633–1639, 2013, doi: 10.1109/TCOMM.2013.021513.100278.

[22] Y. Chen, N. E. Z. Zainal Abidin, and M. S. Aman, 'Improving Intercultural Communication in Chinese Football Clubs: Reconceptualizing the Meaning of Cultural Hybridization, Glocalization, and Expatriating Football Players'Cultural Transition in China', J. int. Students, vol. 15, no. 4, pp. 119–152, 2025, doi: 10.32674/3k9pgj53.

[23] B. Kollia, C. H. Basch, E. Park, and H. Yousaf, 'Social Media Depictions of the Impact of Noise Pollution on Communication and Mental and Physical Health', J. Community Health, vol. 50, no. 4, pp. 694–699, 2025, doi: 10.1007/s10900-025-01457-7.

[24] H. Zhang, 'Fact-checking in China: normative and strategic transparency of Chinese journalists in fact-checking reports', Asian J. Commun., vol. 35, no. 2, pp. 81–99, 2025, doi: 10.1080/01292986.2025.2465340.

[25] Z. Yue et al., 'Clinical and pathological features and varied mutational spectra of pathogenic genes in 55 Chinese patients with nephronophthisis', Clin. Chim. Acta, vol. 506, pp. 136–144, 2020, doi: 10.1016/j.cca.2020.03.015.

[26] D. R. Maulidiyah, S. Asis, E. Rusanti, and S. Anwar, 'Participatory Islamic finance: Ideals, contemporary practices, and innovations: edited by Muhammad Nouman and Karim Ullah, Cham, Switzerland, Springer, 2023, XXVI+242 pp., EUR 139.99 (Hardback), ISBN 9789811995552', The Social Science Journal, vol. 0, no. 0, pp. 1–4, Aug. 2023, doi: 10.1080/03623319.2023.2248702.

[27] A. Y. Chan et al., 'Defining Health Movements and Health Needs Across the Life Course: A Qualitative Study', Health Expect., vol. 28, no. 2, 2025, doi: 10.1111/hex.70228.

[28] D. Smahel, H. Gulec, A. Lokajova, L. Dedkova, and H. Machackova, 'The integrative model of ICT effects on Adolescents' well-being (iMEW): The synthesis of theories from developmental psychology, media and communications, and health', Eur. J. Dev. Psychol., vol. 20, no. 6, pp. 944–961, 2023, doi: 10.1080/17405629.2022.2135501.

[29] P. J. Wright, 'Improving Mental Health Among Communication and Media Scholars: Four Structural Suggestions', Health Commun., vol. 39, no. 8, pp. 1665–1668, 2024, doi: 10.1080/10410236.2024.2358276.

[30] P. V. Pedersen, U. Hjelmar, M. T. Høybye, and M. H. Rod, 'Can inequality be tamed through boundary work? A qualitative study of health promotion aimed at reducing health inequalities', Soc. Sci. Med., vol. 185, pp. 1–8, 2017, doi: 10.1016/j.socscimed.2017.05.025.

[31] V. I. Kraak and N. L. Furr, 'Media Communications Must Promote Healthy Hydration Policies and Environments That Encourage Water Consumption to Reduce Sugary Beverage Health Risks', Am. J. Public Health, vol. 114, no. 12, pp. 1322–1325, 2024, doi: 10.2105/AJPH.2024.307880.

[32] S. A. Gong, S. H. Ao, and Y. S. Chen, 'The influence of patient-centered communication on psychological distress: the chain mediating role of health-related self-efficacy and healthy lifestyle behaviors and the moderating role of social media use', Front. Psychiatry, vol. 16, 2025, doi: 10.3389/fpsyt.2025.1562414.