BULLETIN OF STOMATOLOGY AND MAXILLOFACIAL SURGERY
Volume 21, Issue 12

DOI: 10.58240/1829006X-2025.21.12-322

REVIEW ARTICLE

MAPPING SOCIOLOGICAL RESEARCH ON HEALTH INEQUALITY AND BEHAVIORAL INTERVENTIONS: A BIBLIOMETRIC ANALYSIS OF SOCIAL SCIENCE LITERATURE

Shinta Amelia Syam[1], M. Ramli AT[2], Andi Haris[3]
[1]Department of Sociology, Faculty of Social and Political Science, Hasanuddin University, South Sulawesi, Indonesia.
[2]Department of Sociology, Faculty of Social and Political Science, Hasanuddin University, South Sulawesi, Indonesia.
[3]Department of Sociology, Faculty of Social and Political Science, Hasanuddin University, South Sulawesi, Indonesia
Corresponding Author: Shinta Amelia Syam Department of Sociology, Faculty of Social and Political Science, Hasanuddin University, South Sulawesi, Indonesia. sshintaameliasyam@gmail.com
Received: Dec4. 2025; **Accepted:** Jan 6 , 2025; **Published:** Jan. 12, 2026

Abstract

This study examines the current landscape of sociological research on health inequality and behavioral interventions within the social science literature. A comprehensive bibliometric analysis was conducted using established analytical tools, including VOSviewer, Biblioshiny (R-package), and Publish or Perish, based on data retrieved from the Scopus database. A total of over 533 peer-reviewed journal articles, published between 1978 and 2026, were systematically analyzed. The results indicate a consistent growth in scholarly output, with a marked increase in publications over the past decade, reflecting the rising academic and policy relevance of health inequality research. The findings reveal that health inequality has emerged as a central research domain in sociology and public health, with dominant themes such as health disparities, social determinants of health, socioeconomic inequality, access to health care, and behavioral risk factors frequently appearing in the literature. The most productive countries contributing to this field are the United States, the United Kingdom, and Canada, supported by leading academic institutions that shape the global research agenda. High-impact journals in sociology and health studies play a crucial role in disseminating influential research, indicating that this topic is well established within top-tier academic outlets. Moreover, the analysis highlights that while behavioral interventions are widely discussed, they are predominantly framed within broader structural and policy contexts, emphasizing that individual behavior change alone is insufficient to address persistent health inequalities. Despite the expanding body of literature, notable gaps remain, particularly in integrating intersectional perspectives and expanding empirical research in low- and middle-income countries. Overall, this study provides a systematic overview of research trends, thematic structures, and intellectual influences in sociological health inequality research, offering valuable insights for future studies and evidence-based policy development aimed at reducing health disparities.

Key words: Health Inequality, Social Determinants of Health, Behavioral Interventions, Sociological Perspectives, Bibliometric Analysis

1. INTRODUCTION

Health inequality has been recognised as one of the most important and persistent issues within sociology and public health, as it reflects systematic differences in health outcomes across social groups shaped by unequal social, economic, and institutional structures [1,2.] In contrast to biomedical approaches that emphasise individual behaviour or genetic factors, sociological perspectives conceptualise health inequality as a socially produced phenomenon rooted in broader social determinants, such as socioeconomic status, education, occupation, gender, ethnicity, and living conditions[3]. Consequently, research on health inequality has developed both theoretically and empirically, addressing a wide range of structural and behavioural dimensions.These include studies on social determinants of health[1], fundamental cause theory[2,4] cumulative inequality and life course processes [5,6], access to health care and policy, and behavioural risk factors embedded in social contexts [7]. Together, these strands demonstrate that sociological research on health inequality encompasses both structural explanations and behavioural interventions within diverse social settings.

Over the past few decades, scholarly discussions on health inequality have increased substantially, driven by growing awareness of persistent disparities despite advances in medical technology and health systems. This expanding body of literature reflects heightened academic and policy interest in understanding how social structures shape health outcomes and how interventions

can be designed to promote equity[1,8]. Effective policy responses and health interventions are increasingly expected to address not only individual behaviour but also the structural conditions that constrain health choices and access to care [9]. Moreover, empirical evidence suggests that health inequalities impose significant social and economic costs, reinforcing the importance of sociological research in informing public health strategies and social policy aimed at improving population well-being[10].

Previous research on health inequality has been conducted extensively; however, these studies exhibit diverse emphases and contexts across countries and disciplines. For example, research in high-income countries has largely focused on socioeconomic gradients in health, racial and ethnic disparities, and welfare state regimes[7,11]. In contrast, studies in low- and middle-income countries often emphasise access to basic health services, health system capacity, and the interaction between poverty and disease burden. At the same time, behavioural intervention research varies in focus, ranging from smoking cessation and lifestyle modification to preventive screening and disease-specific interventions. This diversity highlights that sociological research on health inequality is shaped by researchers' theoretical orientations, policy environments, and institutional contexts within different countries[12].

Therefore, research on key themes of health inequality and behavioural interventions continues to evolve and attract increasing scholarly attention. In this context, systematically exploring the health inequality literature is crucial for uncovering the intellectual structure, dominant themes, and emerging trends within this broad and multidisciplinary field. Several narrative and theoretical reviews have examined specific aspects of health inequality, such as social determinants of health, life course approaches, or behavioural risk factors. However, comprehensive bibliometric analyses that map the development of sociological research on health inequality within social science literature remain limited. While some bibliometric studies have addressed public health or medical research more broadly, a focused, Scopus-based bibliometric analysis that integrates structural and behavioural perspectives in sociological health inequality research has not yet been fully undertaken.

Accordingly, this study is important to fill this gap by employing a bibliometric approach based on social science literature indexed in the Scopus database. Bibliometric analysis provides a systematic method for identifying publication trends, influential journals, productive authors, institutional and country contributions, collaboration patterns, and citation networks related to health inequality research. This approach also enables the identification of dominant thematic clusters, underexplored areas, and potential future research directions. This study aims to provide in-depth insights into the status and evolution of sociological research on health inequality and behavioural interventions, thereby contributing to a more integrated understanding of the field. The findings are expected to support the development of more effective research agendas and policy strategies aimed at reducing health inequalities across diverse social contexts.

2.METHODS

2.1. Research Design

This study adopts a quantitative research design using bibliometric analysis to map and examine the development of sociological research on health inequality and behavioral interventions over the period 1978–2026. Bibliometric analysis is a robust and systematic method for identifying publication trends, collaboration patterns, intellectual structures, and thematic evolution within a research field. It is particularly suitable for assessing large volumes of scientific literature and understanding the dynamics of knowledge production over time. To complement the quantitative mapping, this study also incorporates a limited content-oriented interpretation to contextualize dominant themes and research trajectories within the social science literature. The Scopus database was selected as the primary data source due to its broad coverage of peer-reviewed journals in sociology, public health, and social sciences, as well as its reliable citation indexing.

2.2. Search Strategy, Criteria, and Data Collection

This study followed an adapted PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, as illustrated in the flowchart. Data were retrieved from the Scopus database using a comprehensive search string that combined key terms related to health inequality, behavioral interventions, and social science perspectives. The search string included combinations of the following keywords: *"sociology" OR "social science" OR "social studies"* AND *"health" OR "well-being" OR "wellness" OR "healthcare"* AND *"inequality" OR "disparity" OR "access" OR "equity"*.The data were extracted on January 5, 2026. The initial search yielded 5,887 records based on titles, abstracts, and keywords. During the screening process, non-article documents, non-journal publications, and non-English records were excluded, resulting in the removal of 5,354 records. After applying these inclusion and exclusion criteria, a

final dataset of 533 documents was retained and deemed eligible for bibliometric analysis[13].

2.3. Tools and Data Analysis

The bibliometric analysis was conducted using multiple analytical tools to ensure methodological rigor. VOSviewer was employed to construct and visualize bibliometric networks, including co-authorship, co-citation, and keyword co-occurrence maps. R-Biblioshiny was used for descriptive statistical analysis, publication trend analysis, and thematic mapping, while Microsoft Excel supported data cleaning and frequency calculations.

Together, these tools enabled a comprehensive examination of the structural characteristics, collaborative patterns, and thematic evolution of sociological.

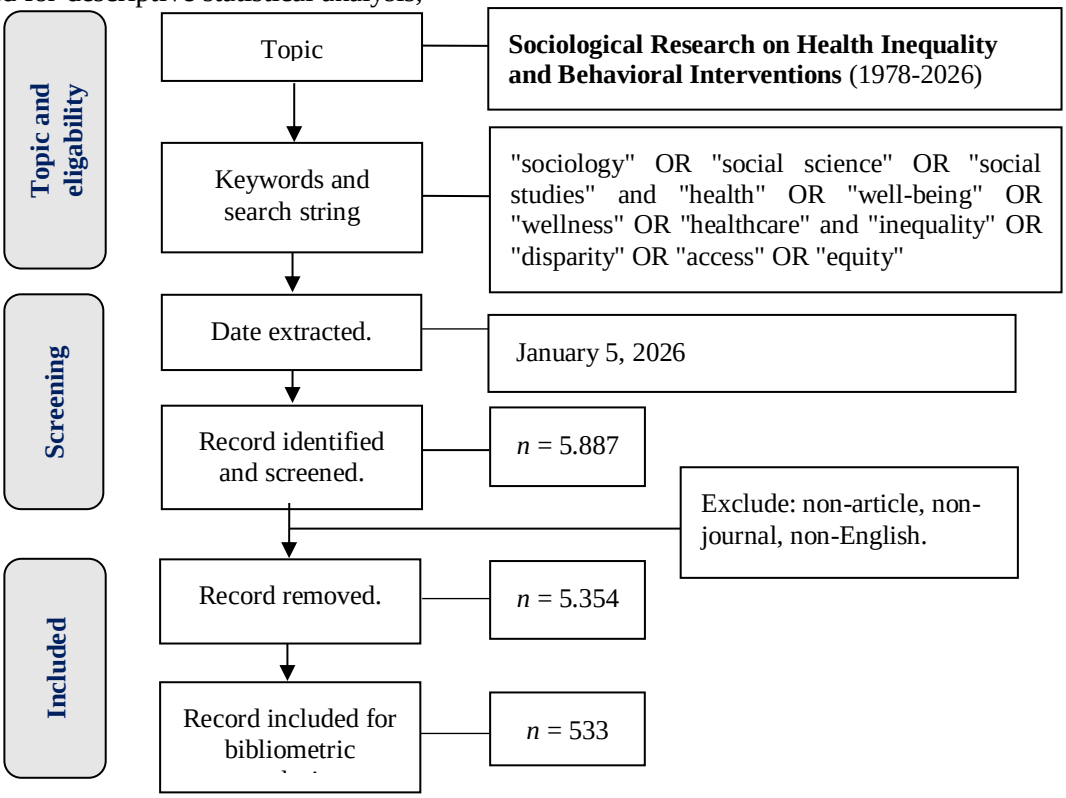

Figure 1. Data processing and search strategy

3. RESULTS

3.1. Descriptive analysis

Publications from 1978 to 2025 comprised a total of 533 documents published across 338 sources. These publications involved 2,213 authors, with no single-authored documents identified, indicating a highly collaborative research field. On average, each document was written by 8.41 co-authors, while the rate of international co-authorship reached 18.39%, reflecting a moderate level of cross-national collaboration. The field experienced an annual growth rate of 8.05%, demonstrating a steady and sustained increase in scholarly interest over nearly five decades. The dataset included 4,583 references and 1,507 author keywords, highlighting extensive engagement with existing literature and a diverse range of research themes. The average document age was 10.9 years, and each document received an average of 46.47 citations, suggesting that the literature is relatively well-established and has achieved strong academic visibility and impact.

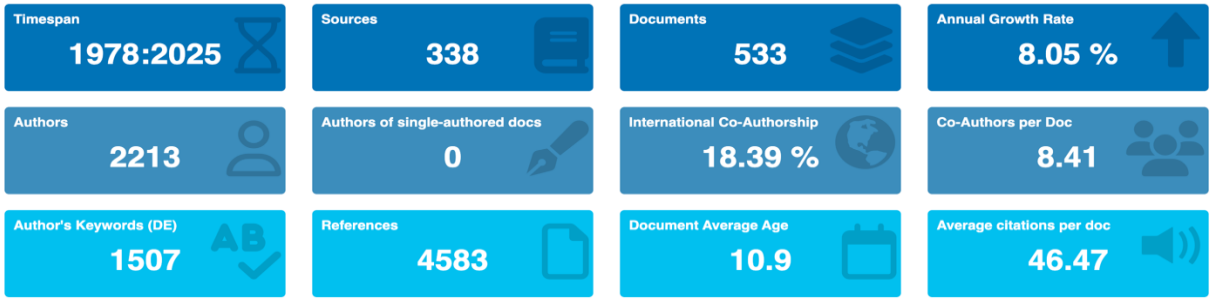

Table 2. Main information about the dataset

The analysis of publications from 1978 to 2025 reveals a clear upward trend in research activity over time. During the early period from 1978 to the late 1990s, publication output was very limited and irregular, with only 0 to 2 articles published per year and several years showing no publications at all. A gradual increase began in the early 2000s, indicating growing scholarly interest in the topic. After 2009, publication activity rose more sharply, with notable growth continuing throughout the 2010s. This trend intensified after 2020, reaching its peak in 2024 with 48 articles, before slightly declining in 2025. Overall, the pattern demonstrates a substantial expansion of sociological research on health inequality and behavioral interventions, reflecting the increasing academic and policy relevance of this field.

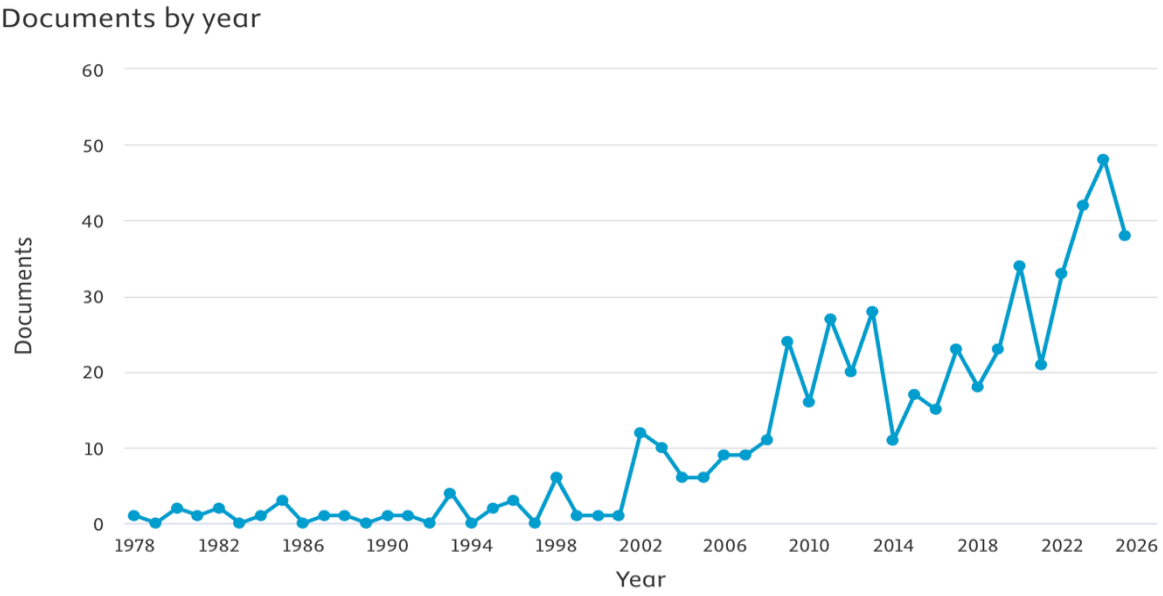

Figure 3. Number of publications per year

3.2. Research trend analysis

Table 2 shows that research on this topic is distributed across multiple subject areas, with Medicine representing the largest share of publications (52.35%), followed closely by Social Sciences (49.16%). This distribution highlights the strong interdisciplinary nature of the field, combining biomedical and sociological perspectives in the study of health inequality and behavioral interventions. Arts and Humanities contribute 12.57%, indicating the presence of critical, ethical, and interpretive approaches, while Psychology accounts for 6.75%, reflecting attention to behavioral and cognitive dimensions. Other subject areas, including Nursing (4.32%), Computer Science (3.19%), and Environmental Science (3.00%), represent smaller but notable proportions. Overall, these findings suggest that although the topic is examined from diverse disciplinary perspectives, the scholarly discourse is primarily anchored in medicine and social sciences, underscoring the integration of clinical, behavioral, and structural approaches in this research domain.

Table 2. Subject area

Subject Area	Total Publications (TP)	Percentage (%)
Subject Area	**TP**	**%**
Medicine	279	52,35%
Social Sciences	262	49,16%
Arts and Humanities	67	12,57%
Psychology	36	6,75%
Nursing	23	4,32%
Computer Science	17	3,19%
Environmental Science	16	3,00%

Table 3 shows that Social Science and Medicine is the leading journal in this field, contributing 44 articles (8.26%), followed by Sociology of Health and Illness with 18 publications (3.38%), highlighting their central roles in sociological

research on health inequality and behavioral interventions. Several interdisciplinary and public health–oriented journals, including BMC Public Health, Journal of Health and Social Behavior, and PLOS One, each published six articles (1.13%), while Critical Public Health, Health Sociology Review, Journal of Epidemiology and Community Health, Journal of Urban Health, and Social Science Quarterly each contributed five articles (0.94%). Overall, these findings indicate that research on this topic is predominantly published in well-established and high-impact journals, particularly within sociology and public health, reflecting the academic significance and visibility of the field.

Table 3. Top 10 journal sources title

No.	Source Title and Scopus Rank	TP	%	*h*	*g*
1	Social Science and Medicine	44	8,26%	29	17
2	Sociology of Health and Illness	18	3,38%	15	17
3	BMC Public Health	6	1,13%	6	15
4	Journal of Health and Social Behavior	6	1,13%	6	9
5	Plos One	6	1,13%	5	9
6	Critical Public Health	5	0,94%	5	7
7	Health Sociology Review	5	0,94%	5	6
8	Journal of Epidemiology and Community Health	5	0,94%	5	5
9	Journal of Urban Health	5	0,94%	4	5
10	Social Science Quarterly	5	0,94%	4	5

On the other hand, Figure 4 shows that Social Science and Medicine has the highest local impact, with a total of 3,518 citations, making it the most influential journal in this field. It is closely followed by the Journal of Health and Social Behavior, which accumulated 3,212 citations, underscoring its strong intellectual influence in sociological research on health inequality. The American Journal of Public Health ranks third with 2,269 citations, reflecting the substantial contribution of public health perspectives. Other highly cited sources include the Annual Review of Sociology (1,748 citations) and Sociology of Health and Illness (approximately 1,270 citations). Journals such as The Gerontologist (774 citations), Journal of Personality and Social Psychology (680 citations), BMC Medicine (555 citations), Journal of Epidemiology and Community Health (544 citations), and BMC Health Services Research (438 citations) show lower but still notable citation impacts. Overall, these citation patterns indicate that scholarly influence in this domain is concentrated in a limited number of well-established, high-impact journals, particularly those bridging sociology and public health.

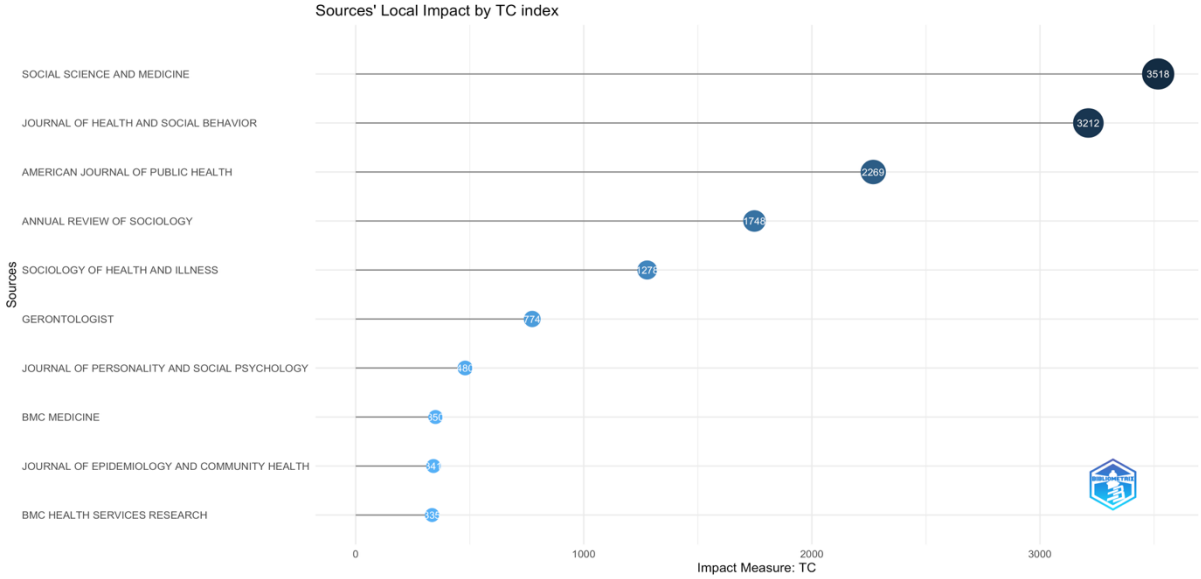

Figure 4. Journal local impact related to the topic

3.3. Most influential countries, affiliates, and productive author

Figure 5 illustrate the contributions of the ten most productive countries in this research field. The United States

dominates the scholarly output with 214 publications (40.15%), indicating its central role in shaping research on health inequality and behavioral interventions. The United Kingdom ranks second with 106 publications (19.89%), followed by Canada with 42 publications (7.88%). Other notable contributors include Australia (28 publications; 5.25%), India (19 publications; 3.56%), Brazil (18 publications; 3.38%), the Netherlands (17 publications; 3.19%), Germany (15 publications; 2.81%), and Italy (15 publications; 2.81%). A small proportion of publications are classified as undefined (30 publications; 5.63%), reflecting records without clear country attribution. Overall, these patterns indicate that research production is heavily concentrated in Western countries, particularly the United States and the United Kingdom, while contributions from emerging and non-Western countries such as India and Brazil suggest a growing global engagement with the field.

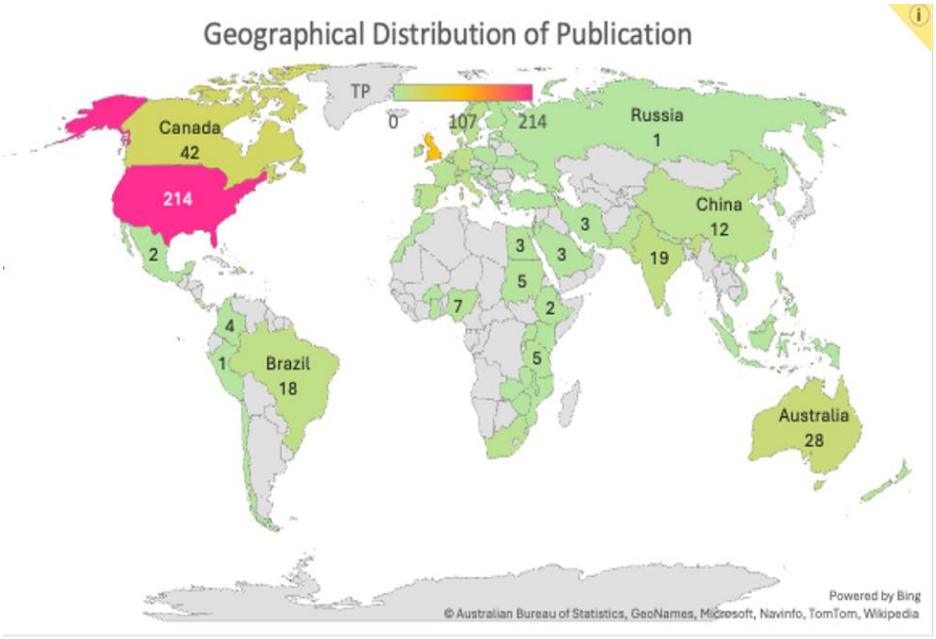

Figure 5. Top Countries

Table 5 presents the leading institutions contributing to research in this field and highlights key academic centers with strong potential for collaboration. The University of Toronto and the University of Michigan, Ann Arbor are the most productive institutions, each contributing 12 publications (2.25%), followed by the London School of Hygiene & Tropical Medicine with 11 publications (2.06%). University College London ranks next with 10 publications (1.88%), while the University of Pennsylvania, The University of British Columbia, and the University of California, San Francisco each produced 9 publications (1.69%). Other prominent contributors include The University of Manchester, Johns Hopkins Bloomberg School of Public Health, and Durham University, each with 8 publications (1.50%). Overall, these findings indicate that the most influential research is concentrated within leading universities in the United States, the United Kingdom, and Canada, underscoring the dominant role of Western academic institutions in shaping the intellectual landscape of this research domain.

Table 5. The top 10 institutions contributed to the publications.

Institution	TP	%	Country
University of Toronto	12	2,25%	Canada
University of Michigan, Ann Arbor	12	2,25%	USA
London School of Hygiene & Tropical Medicine	11	2,06%	UK
University College London	10	1,88%	UK
University of Pennsylvania	9	1,69%	USA
The University of British Columbia	9	1,69%	Canada
University of California, San Francisco	9	1,69%	USA
The University of Manchester	8	1,50%	UK
Johns Hopkins Bloomberg School of Public Health	8	1,50%	USA
Durham University	8	1,50%	UK

Table 6 lists the ten most productive authors in this research field. Mokdad, A.H. and Pérez-Stable, E.J. are the leading contributors, each publishing 8 articles (1.50%), with 208 and 188 total citations, respectively, indicating strong scholarly influence. They are followed by Daoud, F., Dwyer-Lindgren, L., and Kelly, Y.O., each with 7 publications (1.31%), with Kelly, Y.O. standing out for receiving the highest number of citations (310 TC), reflecting a particularly high academic impact. Other prominent contributors include Bambra, C., Baumann, M.M., Compton, K., Hay, S.I., and Kendrick, P., each publishing 6 articles (1.13%). Overall, these results indicate that leading contributions come from a relatively small group of highly productive and influential scholars, highlighting the importance of established research networks in shaping the development of this field.

Table 6. Most Productive Authors

Author Name	TP	%	TC	h-indeks	g-indeks
Mokdad, A.H.	8	1,50%	208	6	8
Pérez-Stable, E.J.	8	1,50%	188	6	8
Daoud, F.	7	1,31%	96	5	6
Dwyer-Lindgren, L.	7	1,31%	113	5	6
Kelly, Y.O.	7	1,31%	310	6	6
Bambra, C.	6	1,13%	142	5	6
Baumann, M.M.	6	1,13%	218	4	4
Compton, K.	6	1,13%	92	3	4
Hay, S.I.	6	1,13%	69	4	4
Kendrick, P.	6	1,13%	47	4	4

3.4. Citation analysis

Based on Table 7, the most influential publications in this field demonstrate a strong focus on sociological and behavioral explanations of health inequality. The study by Hatzenbuehler (2013) in the *American Journal of Public Health* is the most cited work, receiving 2,081 citations, underscoring its importance in explaining how stigma and social stressors affect population health. This is followed by Phelan et al. (2010) in the *Journal of Health and Social Behavior* with 1,956 citations, which reinforces the *fundamental cause theory* as a key framework for understanding persistent health disparities. Another highly cited contribution is Pampel et al. (2010) in the *Annual Review of Sociology* (1,383 citations), offering a comprehensive synthesis of health-related behaviors from a sociological perspective. Influential life-course and inequality-focused analyses are also evident in the works of Ferraro et al. (2009) (774 citations) and Williams et al. (2010) (638 citations), while studies by Gottfredson (2004), Dovidio et al. (2008), House et al. (2002), and Björk et al. (2012) further enrich the field by integrating psychological, behavioral, and structural dimensions. Collectively, these highly cited studies illustrate the theoretical depth, interdisciplinary reach, and sustained scholarly impact of research on health inequality and behavioral interventions.

Table 7. The top ten most cited documents

Paper	DOI	C	TC per Year	Normalized TC
Hatzenbuehler, 2013, Am J Public Health	10.2105/AJPH.2012.301069	081	148,64	19,35
Phelan, 2010, J Health Soc Behav	10.1177/0022146510383498	956	115,06	6,99
Pampel, 2010, Annu Rev Sociol	10.1146/annurev.soc.012809.102529	383	81,35	4,94
Ferraro, 2009,	10.1093/geront/gnp034		43,00	13,07

Gerontologist		74		
Williams, 2010, J Health Soc Behav	10.1177/0022146510383838	38	37,53	2,28
Gottfredson, 2004, J Pers Soc Psychol	10.1037/0022-3514.86.1.174	80	20,87	3,34
Dovidio, 2008, Soc Sci Med	10.1016/j.socscimed.2008.03.019	76	19,79	2,69
House, 2002, J Health Soc Behav	10.2307/3090192	71	14,84	3,75
Björk, 2012, Bmc Med	10.1186/1741-7015-10-73	50	23,33	5,60

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

3.5. Keyword analysis

The keyword analysis reveals that research in this field is predominantly human-centered and sociologically oriented, as indicated by the high frequency of terms such as “Human/Humans,” “Female,” “Male,” “Adult,” “Aged,” and “Middle Aged.” This suggests that the literature largely focuses on population groups and demographic dimensions of health inequality. The strong presence of “Sociology,” “Socioeconomic Factors,” and “Socioeconomics” highlights the central role of social structure and economic conditions in explaining health disparities. At the same time, frequent keywords related to public health systems and policy, including “Public Health,” “Health Disparity,” “Health Status Disparities,” “Health Services Accessibility,” “Health Care Access,” “Health Care Policy,” and “Health Care Delivery,” indicate a strong emphasis on institutional and policy-level determinants of inequality. The appearance of “Major Clinical Study” reflects the integration of empirical and clinical evidence within social science research, while the prominence of “United States” points to a geographical concentration of studies in high-income Western contexts. Overall, these patterns suggest that the literature converges around the interaction between social inequalities, demographic characteristics, and health system access, reinforcing the interdisciplinary nature of sociological research on health inequality and behavioral interventions.

Table 8. 20 Top Keywords

Keywords	TP	%	Keywords	TP	%
Human	326	61,16%	Socioeconomics	87	16,32%
Article	288	54,03%	Public Health	83	15,57%
Humans	261	48,97%	Health Status Disparities	79	14,82%
Sociology	188	35,27%	Health Services Accessibility	72	13,51%
Female	158	29,64%	Health Care Policy	62	11,63%
Male	140	26,27%	Health Care Delivery	60	11,26%
Adult	125	23,45%	Health Care Access	59	11,07%
Health Disparity	113	21,20%	Aged	56	10,51%
Socioeconomic Factors	93	17,45%	Major Clinical Study	55	10,32%
United States	88	16,51%	Middle Aged	52	9,76%

Source: Scopus database

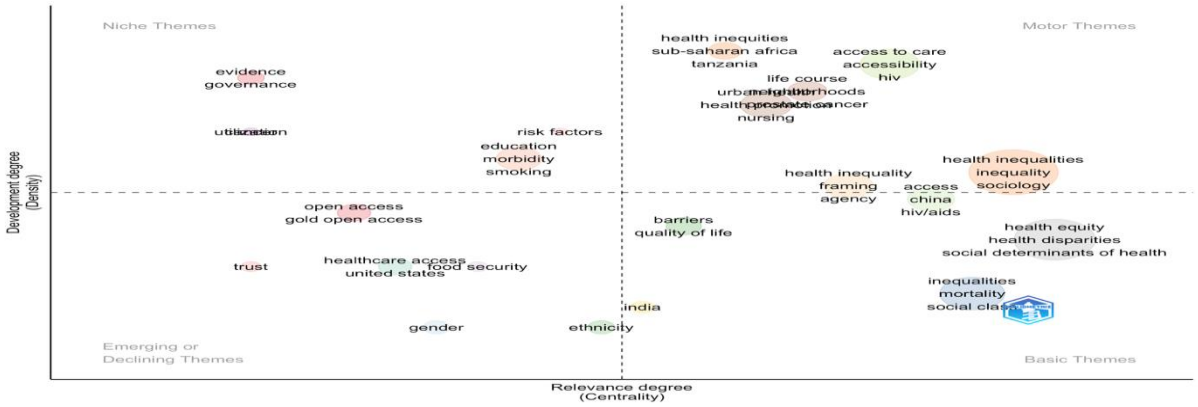

Figure 6. Thematic Maps

The figure presents a thematic map that illustrates the conceptual structure of the research field based on relevance (centrality) and degree of development (density). Themes located in the Basic Themes quadrant (bottom right), such as *health equity*, *health disparities*, *social determinants of health*, *inequalities*, *mortality*, and *social class*, represent core topics that are highly central but relatively general, serving as the foundational concepts of health inequality research. The Motor Themes quadrant (top right) contains themes that are both highly developed and highly relevant, including *health inequalities*, *inequality*, *sociology*, *access to care*, *accessibility*, *life course*, and *HIV*. These themes act as key drivers of the field, linking sociological perspectives with health systems, policy concerns, and specific population contexts.
The Niche Themes quadrant (top left), which includes topics such as *evidence*, *governance*, and *urbanization*, represents specialized areas that are well developed internally but less connected to the core structure of the field. In contrast, the Emerging or Declining Themes quadrant (bottom left), featuring themes such as *gender*, *ethnicity*, *trust*, and *open access*, indicates topics that are either still emerging or receiving decreasing scholarly attention, yet hold potential for future research development. Overall, the thematic map shows that the literature is anchored in structural and social inequality frameworks, while progressively expanding toward access-related, policy-oriented, and integrated sociological approaches to health inequality.

DISCUSSION

Sociological Framing of Inequality

The second theme highlights how health inequality is framed through sociological theoretical perspectives, with a strong emphasis on the relationship between structure and agency. Much of the literature in the dataset draws on *fundamental cause theory* to explain why medical progress and health interventions often fail to reduce and may even widen health gaps between social groups. According to this perspective, groups with greater social and economic resources are consistently better positioned to benefit from health innovations, allowing inequalities to persist over time[2]. In addition to material factors, studies within this cluster stress the importance of social processes such as stigma, discrimination, and social exclusion in shaping health outcomes. Hatzenbuehler (2013) shows that structural stigma functions as a social mechanism linking unequal social status to a wide range of mental and physical health problems[14,15]. As a result, sociological framing broadens the understanding of health inequality beyond economic deprivation alone, incorporating symbolic and relational dimensions as crucial determinants of population health.

Access to Health Care and Policy

Access to healthcare emerges as a central institutional mechanism through which health inequalities are produced, maintained, or mitigated. The dataset reveals that disparities in access are not limited to the availability of services but encompass affordability, geographic proximity, administrative complexity, cultural competence, and trust in institutions. Keywords such as *health services accessibility* and *health care policy* reflect growing scholarly concern with how health systems themselves function as stratifying institutions [16-18]. Importantly, the literature highlights that universal coverage does not guarantee equity. Policies designed around formal equality often fail to address differential capacities to navigate complex healthcare systems. Groups with higher levels of education, health literacy, and social capital are more likely to benefit from expanded services, while marginalized populations continue to face barriers[19,20]. Comparative studies in the dataset further show that welfare state regimes differ significantly in their ability to reduce access-related inequalities. This theme therefore emphasizes the need for equity-oriented policy design that explicitly targets structural barriers and tailors interventions to the needs of socially disadvantaged groups.

Life Course and Population Groups

The life course perspective represents a crucial analytical lens for understanding how health inequalities emerge, accumulate, and persist over time. Research in the dataset consistently demonstrates that early-life conditions such as childhood poverty, educational disadvantage, and exposure to discrimination have long-lasting effects on adult health outcomes[5,6]. Health inequality is thus conceptualized not as a snapshot but as a dynamic trajectory shaped by historical, social, and institutional contexts across different stages of life. This theme also foregrounds differences across population groups, particularly along lines of gender, race, ethnicity, and age. Studies show that women, ethnic minorities, migrants, and older adults often experience overlapping forms of disadvantage that intensify health risks. An intersectional approach within the dataset reveals that these identities do not operate independently but interact to produce unique patterns of vulnerability[21]. By integrating temporal and population-based analyses, this theme deepens understanding of how inequality is embodied over time and across social categories.

Behavioral Risks and Contextual Health Issues

The final theme integrates individual health behaviors with their broader social, economic, and environmental contexts. Rather than treating behaviors such as smoking, diet, and physical activity as matters of personal choice, the literature emphasizes how these behaviors are shaped by education, occupational conditions, neighborhood environments, and cultural norms[7,22]. Structural constraints limit the range of feasible choices available to individuals, making behavior-based interventions inherently unequal when social context is ignored. Moreover, studies in the dataset link behavioral risks to specific health outcomes such as HIV, cardiovascular disease, cancer, and mental health disorders, demonstrating that behavioral interventions are most effective when embedded within supportive structural conditions[23,24]. Research on stigma, policy environments, and community-level resources shows that behavioral change cannot be sustained without addressing underlying inequalities. This theme therefore argues for integrated intervention strategies that combine behavioral, structural, and policy-level approaches to achieve lasting reductions in health inequality[25,26].

CONCLUSION

This study provides a comprehensive overview of the development and intellectual structure of sociological research on health inequality and behavioral interventions within the social science literature. Through a systematic bibliometric analysis, the findings demonstrate a substantial growth in scholarly output over the past two decades, particularly in the last ten years, indicating increasing academic and policy attention to health inequality as a persistent social issue. The literature is largely dominated by structural and sociological perspectives, emphasizing health disparities, social determinants of health, socioeconomic inequality, and unequal access to healthcare services across population groups. The analysis reveals that while behavioral interventions are frequently discussed, they are predominantly framed within broader structural and policy contexts. Most studies highlight that individual health behaviors such as smoking, physical inactivity, or healthcare utilization are deeply shaped by socioeconomic conditions, institutional arrangements, and policy environments. As a result, interventions focusing solely on individual behavior change are often insufficient to reduce health inequalities without accompanying structural reforms. This reinforces the central sociological argument that health inequality is rooted in enduring social structures rather than personal choices alone.In addition, the study identifies notable geographical and thematic disparities within the literature. Research output is heavily concentrated in high-income Western countries, particularly the United States, the United Kingdom, and Canada, while studies from low- and middle-income regions remain underrepresented. Furthermore, although issues of gender, race, and socioeconomic status are widely addressed, intersectional and life-course approaches are still unevenly integrated. Therefore, future research should prioritize more inclusive, context-sensitive, and comparative studies that bridge behavioral interventions with structural determinants of health. Overall, this study contributes to a deeper understanding of global research trends and provides a valuable foundation for developing more equitable and effective health policies aimed at reducing persistent health inequalities.

DECLARATIONS

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. All costs associated with this study were fully borne by the author.

Acknowledgements

The author would like to express sincere gratitude to all researchers whose scholarly works formed the foundation of this bibliometric analysis. Special thanks are extended to academic colleagues and institutions for their intellectual support and constructive feedback throughout the research process. The author also appreciates the contributions of peer reviewers and collaborators whose insights helped refine the analysis and improve the overall quality of this study.

Competing Interests: The authors have no competing interests to declare.

Informed Consent: Not applicable.

REFERENCES

[1] P. Vineis *et al.*, 'The biology of inequalities in health: The LIFEPATH project', *Longitudinal Life Course Stud.*, vol. 8, no. 4, pp. 417–439, 2017, doi: 10.14301/llcs.v8i4.448.

[2] J. C. Phelan, B. G. Link, and P. Tehranifar, 'Social Conditions as Fundamental Causes of Health Inequalities: Theory, Evidence, and Policy Implications', *J. Health Soc. Behav.*, vol. 51, no. 1_suppl, pp. S28–S40, 2010, doi: 10.1177/0022146510383498.

[3] M. K. Williams *et al.*, 'Demystifying Tele-Counseling: Meeting Student Needs Through Ethical Decision-Making and Collaborative Consultation', *J. Spl. Edu. Tech.*, vol. 39, no. 3, pp. 419–433, 2024, doi: 10.1177/01626434231198227.

[4] B. G. Link, J. C. Phelan, R. Miech, and E. L. Westin, 'The resources that matter: Fundamental social causes of health disparities and the challenge of intelligence', *J. Health Soc. Behav.*, vol. 49, no. 1, pp. 72–91, 2008, doi: 10.1177/002214650804900106.

[5] K. F. Ferraro and T. P. Shippee, 'Aging and cumulative inequality: How does inequality get under the skin?', *Gerontologist*, vol. 49, no. 3, pp. 333–343, 2009, doi: 10.1093/geront/gnp034.

[6] O. Yona-Drori and S. Ben-Shlomo, 'Addiction to binge eating among women in psychologically abusive relationships: The moderating role of defense mechanisms', *Health Care Woman Int.*, vol. 42, no. 10, pp. 1183–1198, 2021, doi: 10.1080/07399332.2020.1764565.

[7] F. C. Pampel, P. M. Krueger, and J. T. Denney, 'Socioeconomic disparities in health behaviors', *Annu. Rev. Sociol.*, vol. 36, pp. 349–370, 2010, doi: 10.1146/annurev.soc.012809.102529.

[8] J. S. House, 'Understanding social factors and inequalities in health: 20th century progress and 21st century prospects', *J. Health Soc. Behav.*, vol. 43, no. 2, pp. 125–142, 2002, doi: 10.2307/3090192.

[9] C. J. Lore, 'Student mental health and funding constraints: A delicate balance', *J. Am. Coll. Health Assoc.*, vol. 46, no. 1, pp. 43–46, 1997, doi: 10.1080/07448489709595586.

[10] C. Bambra, 'Health inequalities and welfare state regimes: Theoretical insights on a public health "puzzle"', *J. Epidemiol. Community Health*, vol. 65, no. 9, pp. 740–745, 2011, doi: 10.1136/jech.2011.136333.

[11] D. S. Blumenthal, '"Best science" for the reduction of disparities in cancer', *Ethni. Dis.*, vol. 13, no. 3 SUPPL. 3, pp. S3–S3, 2003.

[12] 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.

[13] L. O. Alimusa, R. T. Ratnasari, I. Osman, A. Hendratmi, F. F. Hasib, and S. Syaifullah, 'Revisiting the literature of halal and Islamic marketing: a bibliometric review and future directions', *Journal of Islamic Accounting and Business Research*, Oct. 2025, doi: 10.1108/JIABR-03-2025-0144.

[14] M. L. Hatzenbuehler, J. C. Phelan, and B. G. Link, 'Stigma as a fundamental cause of population health inequalities', *Am. J. Public Health*, vol. 103, no. 5, pp. 813–821, 2013, doi: 10.2105/AJPH.2012.301069.

[15] V. K. Blake and M. L. Hatzenbuehler, 'Legal Remedies to Address Stigma-Based Health Inequalities in the United States: Challenges and Opportunities', *Milbank Q.*, vol. 97, no. 2, pp. 480–504, 2019, doi: 10.1111/1468-0009.12391.

[16] V. S. Adelita and M. K. Romadhona, 'Medical Services Through Online Media In Health Law Perspective', *Malays. J. Med. Health Sci.*, vol. 19, pp. 25–33, 2023.

[17] A. D. Baugh and R. F. Baugh, 'How Financial Aid Policy Shortchanges American Healthcare', *Teach. Learn. Med.*, vol. 34, no. 3, pp. 322–328, 2022, doi: 10.1080/10401334.2021.1977135.

[18] J. White, 'Budget-makers and health care systems', *Health Policy*, vol. 112, no. 3, pp. 163–171, 2013, doi: 10.1016/j.healthpol.2013.07.024.

[19] E. L. Curtin *et al.*, 'The Peer Education Project to improve mental health literacy in secondary school students in England: a qualitative realist evaluation', *Lancet*, vol. 400, p. S34, 2022, doi: 10.1016/S0140-6736(22)02244-9.

[20] J. M. Wangdahl, K. Dahlberg, M. Jaensson, and U. Nilsson, 'Psychometric validation of Swedish and Arabic versions of two health literacy questionnaires, eHEALS and HLS-EU-Q16, for use in a Swedish context: A study protocol', *BMJ Open*, vol. 9, no. 9, 2019, doi: 10.1136/bmjopen-2019-029668.

[21] L. B. Mintz, K. M. Bartels, and C. A. Rideout, 'Training in Counseling Ethnic Minorities and Race-Based Availability of Graduate School Resources', *Prof. Psychol. Res. Pract.*, vol. 26, no. 3, pp. 316–321, 1995, doi: 10.1037/0735-7028.26.3.316.

[22] R. Barnett, J. Pearce, and G. Moon, 'Community inequality and smoking cessation in New Zealand, 1981-2006', *Soc. Sci. Med.*, vol. 68, no. 5, pp. 876–884, 2009, doi: 10.1016/j.socscimed.2008.12.012.

[23] D. Hawkins, K. Thomas, and P. Landsbergis, 'Occupational inequalities in mortality from cardiovascular disease, 2020–2021', *Am. J. Ind. Med.*, vol. 67, no. 10, pp. 910–919, 2024, doi:

10.1002/ajim.23643.
[24] M. Hamdan, M. Badrasawi, S. Zidan, R. Thawabteh, R. Mohtaseb, and K. A. Arqoub, 'Night eating syndrome is associated with mental health issues among palestinian undergraduate students-cross sectional study', *J. Eating Disord.*, vol. 11, no. 1, 2023, doi: 10.1186/s40337-022-00727-2.
[25] M. Gorsky, '"To regulate and confirm inequality"? A regional history of geriatric hospitals under the English National Health Service, c.1948-c.1975', *Ageing Soc.*, vol. 33, no. 4, pp. 598–625, 2013, doi: 10.1017/S0144686X12000098.
[26] V. Zakirova, 'Gender inequality in Russia: The perspective of participatory gender budgeting', *Reprod. Health Matters*, vol. 22, no. 44, pp. 202–212, 2014, doi: 10.1016/S0968-8080(14)44806-7.