

Narrative Policy Framework in The Academic Field: A Bibliometric Examination

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The Narrative Policy Framework (NPF) has emerged as an indispensable instrument in public policy research, influencing the design, development, and implementation of diverse policies across multiple domains. Despite its growing application and influence, a thorough analysis and comprehension of its scholarly evolution and inter-disciplinary impact remain elusive. This study addressed this deficiency by conducting a comprehensive bibliometric analysis of the NPF literature. We extracted and analyzed 178 documents from the Scopus database using the Bibliometrix R utility. The results demonstrate a substantial increase in NPF research over the years, as evidenced by the growing number of affiliations and collaborations between researchers and institutions. In addition, the co-occurrence network analysis uncovered a number of research themes and clusters, providing valuable insights into the NPF research focus. Additionally, the study traced the thematic evolution of the research domain over time, revealing significant shifts and trends in research topics. Our findings suggest that the scholarly landscape of NPF research is diverse, complex, and dynamic, spanning multiple academic disciplines and policy domains. In addition to enhancing our comprehension of the NPF research ecosystem, the results of this study provide valuable insights for future research directions and policy applications.

A. INTRODUCTION

The Narrative Policy Framework (NPF) is a political science and public administration framework that emphasizes the use of narratives in public policymaking (Hildbrand et al., 2020; Huda, 2019; Stephan, 2020). The NPF illustrates how stakeholders use narratives to influence the policymaking process and how these narratives impact public perceptions of policy issues (Jones & Radaelli, 2015; Weible & Schlager, 2014). Given that narrative plays a critical role in shaping people's perceptions and understanding of political and social issues, NPF's focus on narrative provides a unique perspective in public policy research (Huda, 2019; Mishra, 2020). Despite the fact that the NPF provides essential insights, this study must still address a few obstacles. One is the absence of a comprehensive comprehension of how the NPF is utilized and developed in various research contexts (Jones & Radaelli, 2015; Weible & Schlager, 2014). Despite previous research, there is place for additional investigation into how NPF is used in different contexts and how its usage has evolved over time.

In this context, bibliometric research becomes crucial. Bibliometric analysis enables us to comprehend how NPF has been studied and its application has evolved. By identifying trends,

patterns, and relationships between various elements in the relevant literature, bibliometric analysis yields a broader and more systematic understanding of a research field (Donthu et al., 2021). This study aimed to determine how NPF has been utilized in previous research and how its application has evolved over time. The primary research query is "How has the Narrative Policy Framework been utilized and developed in previous studies?"

This study's significance lies in its contribution to a greater understanding of NPF and its application in research. This study's findings can assist other researchers interested in NPF in understanding how this theory has been applied and in applying it in their work. The novelty of this study is that it provides a more comprehensive picture relating to NPF research. In addition, the findings of this study can provide policymakers with insights into how narrative is utilized in the policymaking process and how they can implement this strategy in their work.

B. METHOD

This study employs a bibliometric analysis design, a research methodology that permits the evaluation of knowledge via statistical analysis of articles and other types of literature (Donthu et al., 2021). This study's primary objective is to identify patterns and tendencies in research on the Narrative Policy Framework (NPF). The research procedure begins with the retrieval of data from the Scopus database, which is renowned for its comprehensive and dependable coverage of multiple disciplines. The search using the keyword "narrative policy framework" returned 178 documents matching the criteria. The selection of these documents was based on their applicability to the research topic and their presence in the Scopus database, which was chosen for its reliability and breadth of coverage.

Following data acquisition, data analysis and visualization commence. To accomplish this, we utilize the Bibliometrix utility in the R statistical environment. Bibliometrics is a robust and adaptable instrument that offers a variety of functions for bibliometric analysis and metrics science, such as bibliographic data processing, collaboration analysis, keyword analysis, and data visualization (Aria & Cuccurullo, 2017). In this analysis, we employ these capabilities to investigate and comprehend patterns and trends in NPF research. We identify patterns of collaboration between authors and institutions, analyze the keywords used in this study, and depict the evolution of topics over time. Then, we mapped the thematic development of NPF research over time and constructed a co-occurrence keyword network to identify significant concepts and their relationships. This data visualization enables us to comprehend and present our research findings with greater clarity and lucidity.

C. RESEARCH FINDING AND DISCUSSION

Main Information

The bibliometric analysis focuses on the collection and interpretation of data from scientific publications with the profile of data shown in Table 1. In this study, we examined the period from 2010 to 2023 and consulted a total of 80 sources, including journals and novels, yielding 178 documents.

Throughout this time frame, the annual growth rate of discovered documents was 26.39 percent. This indicates a significant increase in research-related publications during this time period. The average age of the documents included in this analysis was 3.81 years, indicating that the majority of the research covered was recent and potentially pertinent to the topic under consideration. Importantly, the average number of citations per document is 21.2. This indicates the extent to which the reviewed research has been accepted and cited by other researchers in the same discipline. The documents under review contain a total of 10749 citations.

Table 1.
Main Information

| Description | Results |
|--------------------------------|-----------|
| MAIN INFORMATION ABOUT DATA | |
| Timespan | 2010:2023 |
| Sources (Journals, Books, etc) | 80 |
| Documents | 178 |
| Annual Growth Rate % | 26.39 |

| | |
|---------------------------------|-------|
| Document Average Age | 3.81 |
| Average citations per doc | 21.2 |
| References | 10749 |
| DOCUMENT CONTENTS | |
| Keywords Plus (ID) | 394 |
| Author's Keywords (DE) | 545 |
| AUTHORS | |
| Authors | 276 |
| Authors of single-authored docs | 45 |
| AUTHORS COLLABORATION | |
| Single-authored docs | 57 |
| Co-Authors per Doc | 2.44 |
| International co-authorships % | 11.8 |
| DOCUMENT TYPES | |
| Article | 142 |
| Book | 5 |
| book chapter | 13 |
| conference paper | 11 |
| Editorial | 3 |
| Note | 1 |
| Review | 3 |

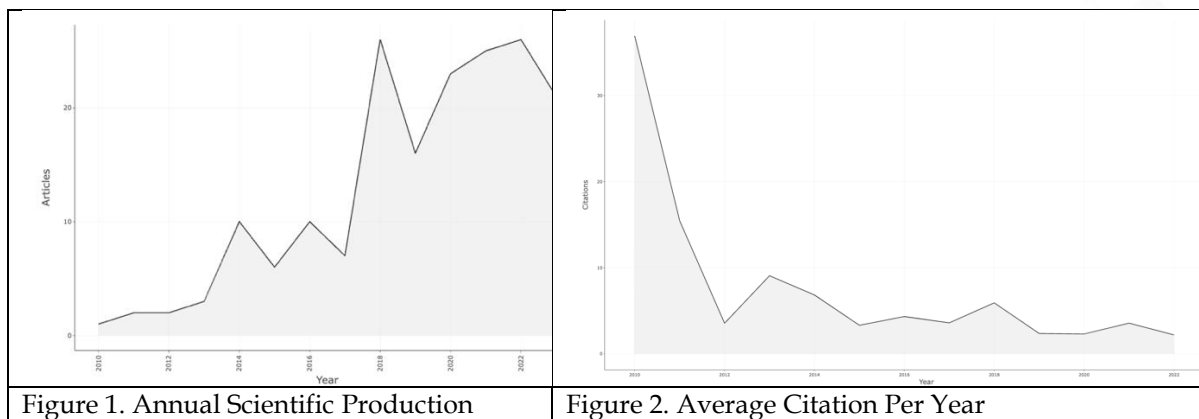
The document's content analysis revealed 394 'Keywords Plus (ID)' and 545 'Author's Keywords (DE)'. It displays the most frequently used keywords and phrases in this research, thereby revealing its primary focal areas. This analysis incorporates the work of 276 authors, 45 of whom are sole authors, in the context of authors. The 57 documents analyzed in this report are unique works. Each document has an average of 2.44 authors, indicating a high level of collaboration in this field of study. However, only 11.8% of these collaborations were international, suggesting that the majority of authors were from the same nation. Articles (142) are the most prevalent document type, followed by book chapters (13), conference papers (11) and reviews (3). There are also five (5) volumes, three (3) editorials, and one (1) note. This suggests that research is predominantly published in the form of articles, which are generally regarded as the most reliable and valid means of disseminating research.

Annual Scientific Production and Average Citation Per Year

Annual scientific production refers to the quantity of articles produced annually in a given research field by scientists. In this context, namely the Bibliometric Analysis of the Narrative Policy Framework, Figure 1 depicts the evolution of annual scientific production from 2010 to 2023. In 2010, only one article was published, but we anticipate a consistent and substantial increase in output over the following several years. In 2011 and 2012, two new articles were published each year. In 2013, three scientific articles were published.

There was a significant increase in scholarly output in 2014, with a total of 10 articles published. In 2015, six new scientific articles were published, but production quickly rebounded in 2016 with another ten articles. In 2017, there were seven fewer articles. Then, in 2018, there was a significant increase in scientific output, with a total of 26 new articles. Despite the decline to 16 articles in 2019, the quantity of publications remains significantly higher than in previous years.

In 2020, scholarly production increased to 23 articles, and in 2021, it will reach a total of 25 articles. In 2022, 26 scholarly articles were published, the same number as in 2018. 21 articles have been published thus far in 2023, although the year is not yet over. Since 2010, it is evident that there has been a consistent upward trend in scholarly output in this field. Despite some fluctuations from year to year, the trend is generally positive, indicating that the Narrative Policy Framework remains an essential and dynamic area of study.



The average number of citations per year provides insight into the extent to which the academic community uses and values research results. Figure 2 illustrates, within the context of the Bibliometric Analysis of the Narrative Policy Framework, how the average annual citation has changed from 2010 to 2023.

In 2010, only one article was published, but the number of citations received was very high: 480, with an annual average of 36.92 citations worth citing over 13 years. In 2011, two new articles were published; each received an average of 185.5 citations, which equates to an annual average of 15.46 citations over a 12-year period. In 2012, two additional articles with an average of 39 citations per article were published, which is equivalent to an average of 3.55 citations per year over the previous 11 years. The average number of citations per article increased to 90.67 in 2013, but with the increase in the number of articles to three, the average annual citations decreased to 9.07.

In 2014, ten new articles were published, averaging 61.5 citations per article and 6.83 per year. In the subsequent years, the average number of citations per article continued to decline, reaching a low point in 2022 and 2023 with 2.19 and 1.43 citations per article, respectively. While there has been a decline in the average number of citations per article and per year, this can primarily be attributed to the fact that newer articles have had less time to accumulate citations. In actuality, the majority of research requires time to be assimilated and utilized by the research community; consequently, the number of citations typically rises over time. The high number of citations, particularly for older studies, indicates that research conducted within the Narrative Policy Framework has acquired significant recognition within the scientific community.

Most Relevant Sources

In Table 2, the most pertinent sources have a significant impact on the narrative and comprehension of the research. Here are the most influential sources, as determined by the number of articles included in this study. With a total of 28 articles, 'Policy Studies Journal' dominates this analysis as the source with the most articles. This demonstrates that the 'Policy Studies Journal' is a significant player in research pertaining to the Narrative Policy Framework, as it produces and publishes a substantial quantity of relevant research. This analysis contains 17 articles from the 'Politics and Policy' section. Thus, 'Politics and Policy' is also a valuable source of information for this field of study.

Table 2.
Most Relevant Sources

| Sources | Articles |
|----------------------------------|----------|
| POLICY STUDIES JOURNAL | 28 |
| POLITICS AND POLICY | 17 |
| EUROPEAN POLICY ANALYSIS | 10 |
| CRITICAL POLICY STUDIES | 9 |
| REVIEW OF POLICY RESEARCH | 9 |
| POLICY SCIENCES | 8 |
| PUBLIC POLICY AND ADMINISTRATION | 6 |

| | |
|--|---|
| THE SCIENCE OF STORIES: APPLICATIONS OF THE NARRATIVE POLICY FRAMEWORK IN PUBLIC POLICY ANALYSIS | 6 |
| SUSTAINABILITY (SWITZERLAND) | 3 |
| THEORIES OF THE POLICY PROCESS, FOURTH EDITION | 3 |

The publications 'European Policy Analysis' and 'Critical Policy Studies' and 'Review of Policy Research' have published ten and nine articles, respectively. The journal 'Policy Sciences' has produced eight articles, while 'Public Policy and Administration' and 'The Science of Stories: Applications of the Narrative Policy Framework for Public Policy Analysis' have each produced six. Lastly, 'Sustainability (Switzerland)' and 'Theories of the Policy Process, Fourth Edition' each published three articles in this analysis. Overall, this demonstrates that a wide range of sources contribute to the Narrative Policy Framework's research. Each of these sources provides a distinct perspective and research concentration, all of which contribute to a broader understanding of the Narrative Policy Framework in the context of public policy.

Source Local Impact

The local source impact analysis provides a more comprehensive depiction of how each source contributes to research in the Narrative Policy Framework (Table 3). The journal with the greatest impact was 'Policy Studies Journal,' with an h-index of 16, a g-index of 28, and an m-index of 1,143. Since 2010, this resource has received a total of 1488 citations and has published 28 articles. The H-index indicates that at least 16 of this resource's articles have each received at least 16 citations. The g-index and m-index measure the productivity and increased influence of these sources in the research on the Narrative Policy Framework.

Table 3.
Source Local Impact

| Element | h_index | g_index | m_index | TC | NP | PY_start |
|--|---------|---------|---------|------|----|----------|
| POLICY STUDIES JOURNAL | 16 | 28 | 1.143 | 1488 | 28 | 2010 |
| EUROPEAN POLICY ANALYSIS | 7 | 8 | 2.333 | 83 | 10 | 2021 |
| POLITICS AND POLICY | 6 | 16 | 0.462 | 266 | 17 | 2011 |
| THE SCIENCE OF STORIES: APPLICATIONS OF THE NARRATIVE POLICY FRAMEWORK IN PUBLIC POLICY ANALYSIS | 6 | 6 | 0.600 | 376 | 6 | 2014 |
| CRITICAL POLICY STUDIES | 5 | 9 | 0.556 | 118 | 9 | 2015 |
| REVIEW OF POLICY RESEARCH | 5 | 9 | 0.625 | 107 | 9 | 2016 |
| PUBLIC POLICY AND ADMINISTRATION | 4 | 6 | 0.500 | 101 | 6 | 2016 |
| POLICY SCIENCES | 3 | 6 | 0.333 | 42 | 8 | 2015 |
| THEORIES OF THE POLICY PROCESS, FOURTH EDITION | 3 | 3 | 0.500 | 154 | 3 | 2018 |
| ENVIRONMENTAL POLITICS | 2 | 2 | 0.182 | 65 | 2 | 2013 |

Despite beginning in 2021, the 'European Policy Analysis' has had a significant impact with an impressive h-index of 7, g-index of 8, and m-index of 2.333. This resource has received 83 citations with only 10 articles published. With an h-index of 6, g-index of 16, and m-index of 0.462, 'Politics and Policy' also had a significant impact. This resource has been cited 266 times with 17 articles published since 2011.

Despite having only six articles, 'The Science of Stories: Applications of the Narrative Policy Framework in Public Policy Analysis' demonstrates a significant impact with 376 citations, an h-index, a g-index of 6, and an m-index of 0.600. The number of citations for 'Critical Policy Studies', 'Review of Policy Research', and 'Public Policy and Administration' ranges from 101 to 118, and the h-index is between 4 and 5. The journals 'Policy Sciences', 'Theories of the Policy Process, Fourth Edition,' and 'Environmental Politics' have a reduced impact, with an h-index between 2 and 3, but continue to make significant contributions to research in the Narrative Policy Framework. This demonstrates that diverse sources contributed in unique and significant ways to the impact and development of the Narrative Policy Framework. While some sources are more influential than others, each contributes to a broader understanding and knowledge of the field.

Most Relevant Authors

Table 4 identifies authors as significant actors who influence and advance research fields. Here are the most relevant authors based on the volume and proportion of articles they have written.

Table 4.
Most Relevant Authors

| Authors | Articles | Articles Fractionalized |
|----------------|----------|-------------------------|
| JONES MD | 24 | 10.20 |
| MCBETH MK | 23 | 7.48 |
| SHANAHAN EA | 15 | 3.84 |
| LYBECKER DL | 7 | 2.20 |
| PETERSON HL | 6 | 3.42 |
| RADAELLI CM | 6 | 2.08 |
| SMITH-WALTER A | 6 | 2.53 |
| SCHLAUFER C | 5 | 1.82 |
| CROW DA | 4 | 1.67 |
| HUDA J | 4 | 3.17 |

MD Jones is the most prolific author, having contributed 24 articles with a fraction of 10.20. This demonstrates that the author has made significant contributions to the research on the Narrative Policy Framework. MK McBeth contributed significantly with 23 articles and a fraction of 7.48 as well. With 15 articles and a percentage of 3.84, EA Shanahan is the third most prolific author. DL Lybecker has published 7 articles with a 2.20 fraction, while HL Peterson, CM Radaelli, and A Smith-Walter have each published 6 articles with fractions ranging from 2.08 to 3.42.

Meanwhile, C Schlauper, DA Crow, and J Huda have each published between 4 and 5 articles, with a proportion ranging from 1.67 to 3.17. Overall, these authors have significantly shaped and advanced the Narrative Policy Framework as a discipline of study. Through their work, they have expanded their knowledge of the field and contributed new perspectives and findings that contribute to a greater understanding of the Narrative Policy Framework.

Author Local Impact

As shown in Table 5, an analysis of the local impact of authors in the Narrative Policy Framework offers a deeper understanding of how each author has contributed to research in this field. Collectively, the contributions of numerous authors to the development and impact of the Narrative Policy Framework are singular and significant. Although some authors have had a larger impact than others, each has contributed significantly to expanding the field's knowledge and understanding.

Table 5.
Author Local Impact

| Element | h_index | g_index | m_index | TC | NP | PY_start |
|----------------|---------|---------|---------|------|----|----------|
| JONES MD | 15 | 24 | 1.071 | 1885 | 24 | 2010 |
| MCBETH MK | 15 | 23 | 1.071 | 1797 | 23 | 2010 |
| SHANAHAN EA | 11 | 15 | 0.846 | 1144 | 15 | 2011 |
| LYBECKER DL | 6 | 7 | 0.545 | 170 | 7 | 2013 |
| PETERSON HL | 5 | 6 | 0.500 | 117 | 6 | 2014 |
| RADAELLI CM | 5 | 6 | 0.455 | 264 | 6 | 2013 |
| SCHLAUFER C | 4 | 5 | 0.667 | 90 | 5 | 2018 |
| SMITH-WALTER A | 4 | 6 | 0.400 | 90 | 6 | 2014 |
| BREWER AM | 3 | 3 | 0.500 | 24 | 3 | 2018 |
| CROW D | 3 | 3 | 0.500 | 91 | 3 | 2018 |

MD Jones and MK McBeth have the greatest local impact, with an h-index of 15, a g-index of 24 and an m-index of 1.071, respectively. This indicates that at least 15 articles from each author have been cited 15 times or more. Jones has 1885 citations from 24 articles, while McBeth has 1797 citations from 23 articles, indicating a substantial level of influence in this field. The h-index, g-index, and m-index for Shanahan's EA were 11, 15, and 0.846, respectively. Shanahan has 15 published articles and 1144 citations. With h-indexes of 6 and 5, g-indexes of 7 and 6, and m-indexes of 0.545 and 0.455, and 170 and 264 citations of 7 and 6 articles, respectively, DL Lybecker and CM Radaelli had a moderate impact. HL Peterson, C Schlauper, and A Smith-Walter also demonstrated a moderate impact with an h-index between 4 and 5 and a range of 90 to 117 citations. AM Brewer and D. Crow each had an h-index of 3 and a g-index of 3, and the number of citations ranged from 24 to 91.

Most Relevant Affiliations

According to Table 6, affiliated institutions played a significant role in supporting and facilitating the authors' research. The institutions that have published the greatest number of articles in this field are listed below. Idaho State University and Montana State University are the most prolific institutions for Narrative Policy Framework research, with 29 and 28 published articles, respectively. This indicates that these two institutions are significant research hubs for the Narrative Policy Framework. With twenty articles published in this discipline, Oregon State University has also made notable contributions. This demonstrates that the institute is also a major participant in this research field.

Table 6.
Most Relevant Affiliations

| Affiliation | Articles |
|-------------------------------|----------|
| IDAHO STATE UNIVERSITY | 29 |
| MONTANA STATE UNIVERSITY | 28 |
| OREGON STATE UNIVERSITY | 20 |
| UNIVERSITY OF COLORADO DENVER | 9 |
| UNIVERSITY OF EXETER | 7 |
| UNIVERSITY OF BERN | 6 |
| MONASH UNIVERSITY | 4 |
| UNIVERSITY OF CALIFORNIA | 4 |
| UNIVERSITY OF COLORADO | 4 |
| UNIVERSITY OF LOUISVILLE | 4 |

The University of Colorado Denver has published nine articles, while the University of Exeter has published seven. While the University of Bern has published six articles, its contributions to this discipline are substantial. Monash University, University of California, University of Colorado, and University of Louisville have each published four articles, indicating their participation in Narrative Policy Framework research. These institutions have contributed significantly to the development of the Narrative Policy Framework's research. They have each supported and facilitated research that

enhances understanding of the Narrative Policy Framework by expanding the field's knowledge and providing new perspectives and findings.

Trend Topics

The changing trending topics in the Narrative Policy Framework reflect a transition in research and policy approaches (Figure 3). In the period between 2010 and 2023, the frequency with which certain topics appear in scholarly publications indicates their growing importance. The prominence of 'United States' in 20 publications, with a climax between 2017 and 2020, demonstrates the importance of the American policy context in this study. The terms 'policy analysis' and 'policy formulation' appear 15 times each and will receive the most attention between 2018 and 2022. This emphasizes the significance of policy analysis and formulation within the Narrative Policy Framework.

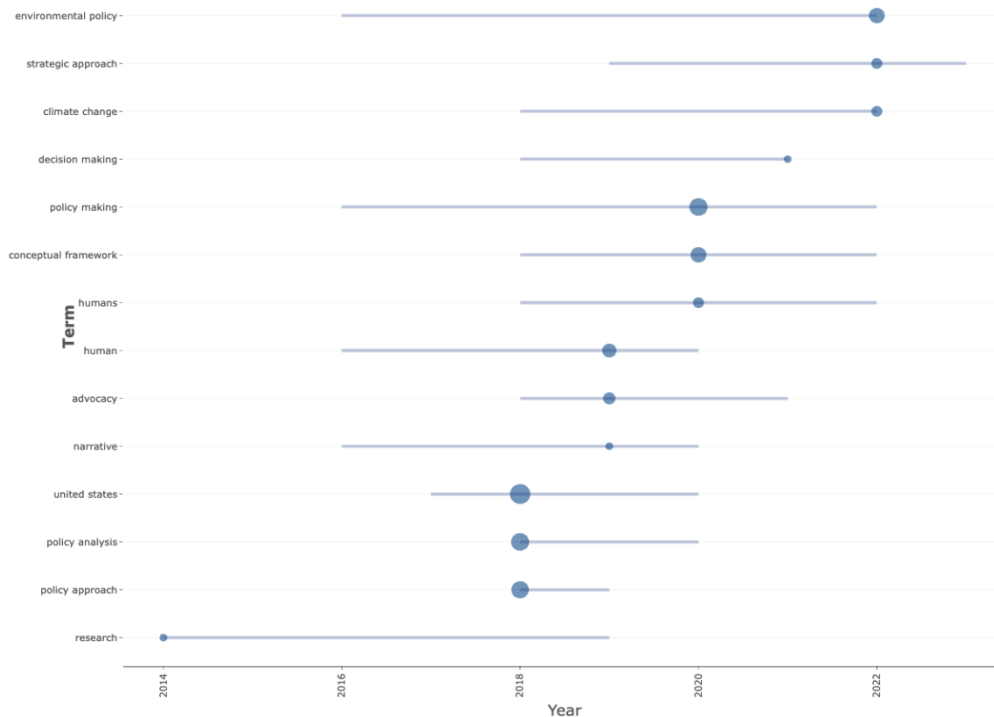


Figure 3. Trend Topics

The terms 'policy approach,' 'human,' and 'advocacy' garnered 14 mentions, 9 mentions, and 7 mentions, respectively. The topic of 'policy approach' reached its zenith between 2018 and 2019, whereas 'human' and 'advocacy' became more prevalent as the period progressed, particularly between 2019 and 2021. The frequency of occurrence of the 'narrative' and 'conceptual framework' themes peaked between 2019 and 2022, indicating a growing interest in defining and deploying conceptual frameworks for policy analysis.

In the meantime, 'decision making,' 'environmental policy,' and 'climate change' began to acquire additional traction towards the end of the period, particularly in 2021 and 2022. This reflects an increased emphasis on environmental concerns and the impact of policy decisions on climate change. In 2022 and 2023, the phrase 'strategic approach' will become increasingly popular as the period's final trend. Collectively, these trends reflect the dynamics of altering interest and emphasis in Narrative Policy Framework research, demonstrating how researchers adapt to shifting contexts and policy challenges.

Co-occurrence Network

The co-occurrence network analysis yielded various nodes grouped into six distinct clusters (Figure 4), with each cluster representing a set of topics that frequently appear together in Narrative Policy Framework research.

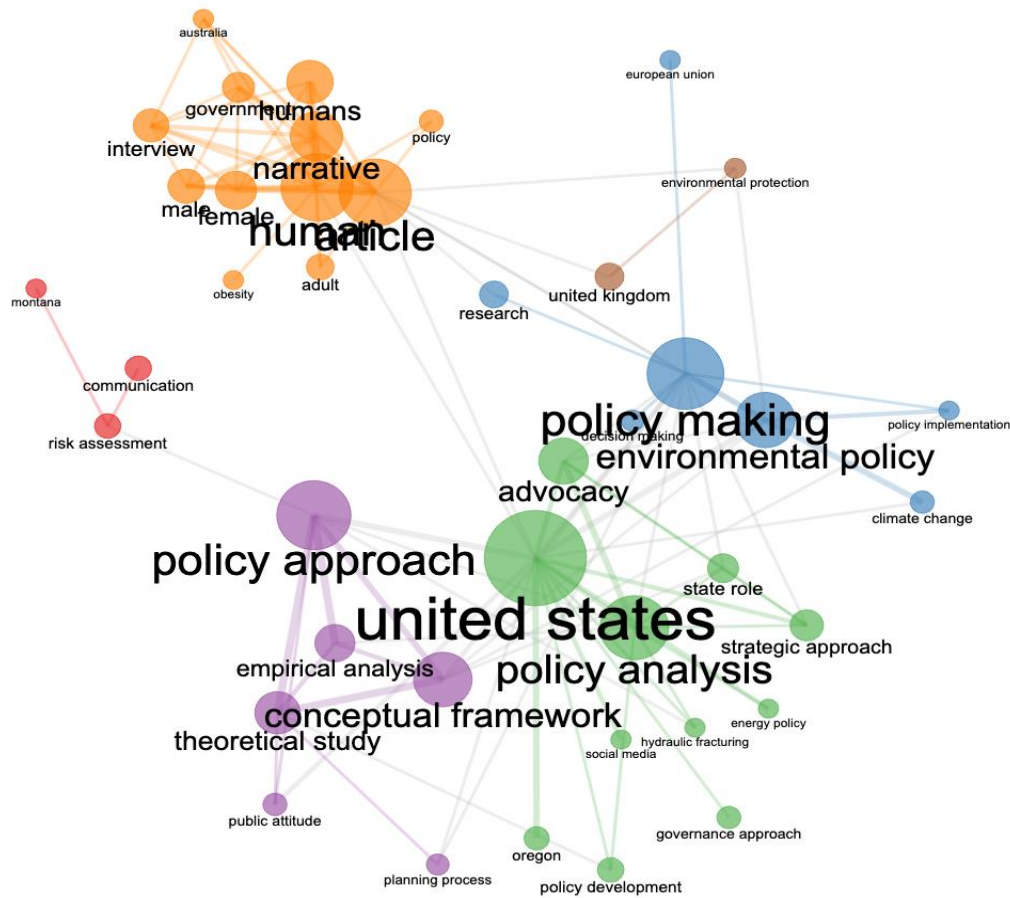


Figure 4. Co-occurrence Network

The first cluster, denoted by the terms 'risk assessment' and 'communication,' appears to emphasize the evaluative and communicative aspects of the policy framework (Crow et al., 2017; McBeth et al., 2014; Schubert, 2015). Developing and implementing effective policies requires consideration of risk factors and communication. The second cluster, with 'policy making' and 'environmental policy' as its principal nodes, represents a concentration on the policy-making process, especially in relation to environmental issues (Brivati, 2014; Howlett & Rayner, 2006; Mainenti, 2020; Peterson & Jones, 2016). This cluster also includes "climate change," emphasizing its environmental focus (Ba et al., 2022; Lawton & Rudd, 2014; McBeth et al., 2022; Peterson, 2023; Uldanov et al., 2021).

The third cluster consists of 'United States,' 'policy analysis,' and 'advocacy,' denoting a particular geographical context and concentrating on policy analysis and advocacy efforts in the Narrative Policy Framework research (Gupta et al., 2018; Pierce et al., 2022). The fourth cluster, which comprises the 'policy approach' and the 'conceptual framework', demonstrates concern for theoretical and conceptual aspects of policy development and implementation (Jones et al., 2014; McBeth et al., 2012; Smith-Walter & Jones, 2020; Weiss, 2020).

The fifth cluster consists of the terms 'human,' 'article,' and 'humans,' indicating that this study focused primarily on article analysis and involved extensive human research (Brivati, 2014; Veselková, 2017). The sixth cluster, with 'United Kingdom' and 'environmental protection' as its primary nodes, demonstrates the study's additional emphasis on geographic and environmental context (Lawton & Rudd, 2016; Painter, 2013). This co-occurrence network analysis illustrates how various topics and concepts interact and influence one another in Narrative Policy Framework research, resulting in a variety of interconnected research themes.

Thematic Evolution

The thematic evolution of research on the Narrative Policy Framework demonstrates shifts and developments in approach and concentration over time (Figure 5). Several themes shifted considerably from one period to the next, demonstrating an adaptation to new developments and concerns in the field.

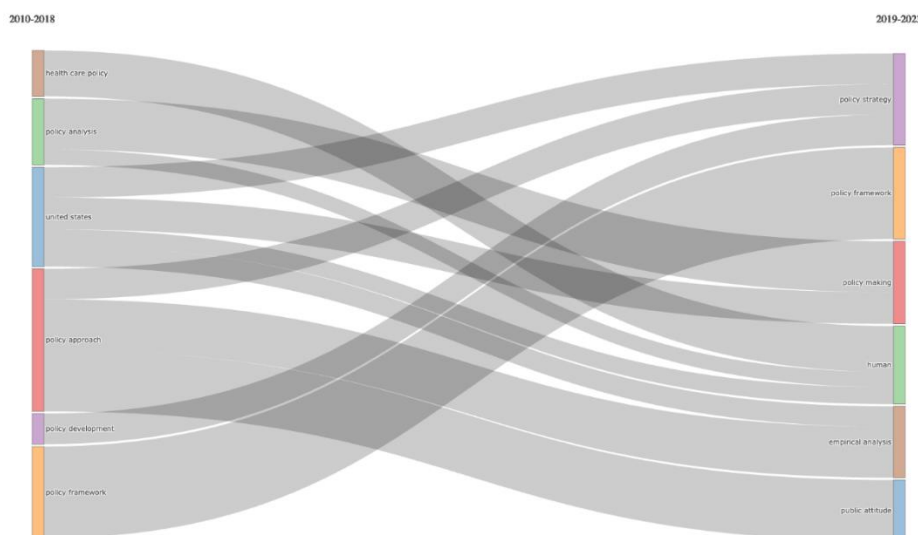


Figure 5. Thematic Evolution

For instance, 'health care policy' became the primary focus from 2010 to 2018 and then 'human' from 2019 to 2023. This may reflect a transition in policy research from health-sector-specific to human-centered policy development and implementation. In addition, the emphasis on 'policy analysis,' 'social media,' and 'strategic approach' has shifted from 'policy analysis' in 2010–2018 to 'policy making' in 2019–2023. This demonstrates a greater emphasis on the policymaking process, social media, and a strategic approach to policy analysis.

The concentration of the 'policy approach' will shift from 2010 to 2018 to 'empirical analysis' and 'policy making' from 2019 to 2023. During this time, 'conceptual framework' and 'policy strategy' also gained importance. It is fascinating to observe the consistent evolution of the 'policy framework' from 2010–2018 to 2019–2023. This indicates that the policy framework remains the primary focus of this research despite the evolution of other issues and methods. This thematic evolution demonstrates that the research of the Narrative Policy Framework is dynamic and adaptable to shifting contexts and priorities in the field of public policy. Efforts to address new questions and challenges in the discipline have caused shifts in emphasis and methodology over time.

Discussion

Through bibliometric analysis, this study aimed to disclose and comprehend the research journey of the Narrative Policy Framework (NPF). The objective is to evaluate the pattern of NPFs' emergence in research over time and to investigate the interactions between the various research elements that have contributed to the growth of this discipline.

First, the collaboration analysis reveals that Idaho State University and Montana State University predominate in the field of NPF research. While this may reflect the institution's particular expertise or dedication to this framework, there is a need for a deeper examination of how NPF research is interpreted and communicated through this relatively narrow lens. Dominant institutions in a field can generate biases in the evolving academic discourse, which, in this case, can impact the comprehension and acceptance of NPF (Blair & McCormack, 2016; Gottlieb et al., 2018; Gupta et al., 2018).

Second, the keyword analysis reveals that "United States," "Policy Analysis," and "Policy Making" predominate in the NPF research. This reflects the prevalence of AS-based research in the current investigation. This interpretation is dubious, given that policy narratives are not restricted by geographical boundaries (Pierce et al., 2014, 2022). In addition, the dominance of the United States may muffle the voices and perspectives of researchers and practitioners from other contexts who could make significant contributions to NPF research (Gray & Jones, 2016; Jones & Radaelli, 2016; Shanahan et al., 2011; Veselková, 2017).

Thirdly, thematic evolution analysis demonstrates a shift in emphasis from "health care policy" and "policy analysis" to "human" and "policy making." While this reflects the field's adaptation to shifting contexts and priorities, it is essential to question whether NPF research captures the evolving nuances and complexities of health policy and to what extent this focus reflects contemporary realities (Clemons et al., 2012; Cullerton et al., 2022; Derkyi-Kwarteng et al., 2021; Wallace et al., 2020).

While the bibliometric analysis has allowed us to investigate and comprehend the evolution of NPF research as a whole, it has limitations. Bibliometric analysis tends to rely on data available in research databases and is susceptible to selection and availability biases. In addition, this study did not take into account research that did not explicitly use the NPF but may have relevance to this field. Therefore, additional research is required to comprehend better and investigate the diversity and complexity of NPF research.

D. CONCLUSION AND RECOMMENDATION

This bibliometric analysis of the Narrative Policy Framework has provided a comprehensive summary of the research in this field. Changes in research topics, thematic emphasis, and methodological orientation reflect the development and evolution of research in this field. As evidenced by the local impact measures of the most relevant authors and affiliations, this study also demonstrates the significant role of multiple authors and institutions in proposing and developing the Narrative Policy Framework.

This analysis demonstrates how the Narrative Policy Framework has evolved and changed over time, with an increasing emphasis on empirical and strategic approaches to policy formulation and analysis. These findings demonstrate the need to comprehend shifting contexts and priorities in public policy research and how this research can assist in addressing new questions and obstacles in this field.

As with any bibliometric analysis, the limitations of this study are numerous. First, this analysis is contingent on available data and is susceptible to publication and reporting bias. Second, while this analysis encompasses a considerable amount of time, future research could focus on a longer period or use a comparative approach to comprehend the Narrative Policy Framework's developments and trends in a broader context. Future research should seek to expand the scope of this analysis, perhaps by incorporating additional sources and languages, in order to comprehend the evolving global Narrative Policy Framework. In addition, future research could focus on qualitative research that investigates in depth how and why certain changes in the Narrative Policy Framework impact public policy practice.

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