

Research Article

Mapping the Landscape of Post-Traumatic Growth Research: A Global Bibliometric and Science Mapping AnalysisYasemin GÜLER^{1*}, Osman SÖNER², Deniz DABAN², Roza DEMİR²¹ Istanbul Sabahattin Zaim University, Research Assistant, Faculty of Health Sciences, Department of Social Work, Istanbul, Türkiye² Istanbul Sabahattin Zaim University, Assistant Professor, Faculty of Education, Department of Guidance and Psychological Counseling, Istanbul, Türkiye**Makale Bilgisi****Keywords:***post-traumatic growth, bibliometric analysis, publication trends, co-citation network, international collaboration***Anahtar kelimeler:***travma sonrası büyüme, bibliyometrik analiz, yayın eğilimleri, ortak atıf ağı, uluslararası iş birliği restoration***Abstract**

Post-traumatic growth (PTG) is an important concept that explains the positive psychological transformations individuals experience after serious traumatic experiences. Despite the recent increase in scientific interest in this field, the structural and thematic development of the PTG literature has not been systematically examined. This study analyzes PTG-focused scientific publications from 1980 to 2025 using bibliometric methods to reveal publication productivity, intellectual structure, international collaborations, and thematic trends in the field. The data were obtained from the Web of Science database and analyzed using science-mapping techniques in RStudio. The findings show that publication production increased significantly after 2004, with citation counts peaking between 2015 and 2022. Co-citation analyses reveal that founding figures such as Tedeschi and Calhoun occupy a central position in the field. At the same time, thematic maps show that concepts such as "post-traumatic stress" and "meta-analysis" indicate methodological diversity. Additionally, countries such as the US, China, and the UK are seen as leaders in terms of publications and collaboration, while regions such as Africa and South America are underrepresented. This study provides a comprehensive overview of the evolution of PTSD research from historical and thematic perspectives, offering an important roadmap for future research.

Öz

Travma sonrası büyüme (TSB), bireylerin ciddi travmatik deneyimlerden sonra yaşadıkları olumlu psikolojik dönüşümleri açıklayan önemli bir kavramdır. Bu alana olan bilimsel ilginin son zamanlarda artmasına rağmen, TSB literatürünün yapısal ve tematik gelişimi sistematik olarak incelenmemiştir. Bu çalışma, TSB odaklı bilimsel yayınları 1980 ile 2025 yılları arasında bibliyometrik yöntemler kullanarak analiz etmeyi ve alandaki yayın verimliliğini, entelektüel yapıyı, uluslararası işbirliklerini ve tematik eğilimleri ortaya çıkarmayı amaçlamaktadır. Veriler Web of Science veritabanından elde edilmiş ve RStudio'da bilimsel haritalama teknikleri kullanılarak analiz edilmiştir. Bulgular, yayının üretiminin 2004'ten sonra önemli ölçüde arttığını ve atıf sayılarının 2015 ile 2022 yılları arasında zirveye ulaştığını göstermektedir. Ortak atıf analizleri, Tedeschi ve Calhoun gibi kurucu isimlerin alanda merkezi bir konumda olduğunu ortaya koymaktadır. Aynı zamanda, tematik haritalar, "travma sonrası stres" ve "meta-analiz" gibi kavramların metodolojik çeşitliliği gösterdiğini ortaya koymaktadır. Ayrıca, ABD, Çin ve İngiltere gibi ülkeler yayınlar ve iş birliği açısından lider olarak görülürken Afrika ve Güney Amerika gibi bölgeler yeterince temsil edilmemektedir. Bu çalışma, travma sonrası stres bozukluğu araştırmalarının tarihsel ve tematik perspektiflerden evrimine kapsamlı bir genel bakış sunarak gelecekteki araştırmalar için önemli bir yol haritası sağlamaktadır.

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DOI: 10.31682/ayna.1803255

Submission Date: 14.10.2025; Acceptance Date: 14.04.2026

ISSN: 2148-4376

Introduction

Life is sometimes interrupted by events that deeply shake a person's existence, leaving them feeling that nothing will ever be the same again. Such moments reshape the past and all perceptions of the future. Trauma refers to extraordinary events or situations that threaten an individual's sense of wholeness and can lead to harmful physical or psychological consequences (Van der Kolk, 2022). According to the American Psychiatric Association's DSM 5 (APA, 2013) definition, trauma refers to exposure to life-threatening situations such as actual or potential death, serious injury, or sexual assault. This can occur when an individual directly experiences a traumatic event, witnesses someone else experiencing it, learns that a close relative has experienced trauma, or is repeatedly and persistently exposed to the details of the event. Trauma often leads to negative outcomes such as intense anxiety, depression, and adjustment difficulties. However, in some individuals, such challenging life experiences can also result in positive psychological changes known as “Posttraumatic Growth” (PTG) as they cope with difficulties (Tedeschi & Calhoun, 2004).

The concept of Post-Traumatic Growth was first introduced to the literature by Tedeschi and Calhoun in 1995, and a measurement tool was developed in 1996 to assess this phenomenon (Tedeschi & Calhoun, 1995, 1996). However, the idea that traumatic experiences may have the potential for personal transformation has existed in various beliefs and philosophical systems for much longer. Indeed, understandings that emphasize the transformative power of suffering are also found in Islam, Christianity, Hinduism, and Buddhism (Tedeschi & Calhoun, 1995). The founders of humanistic psychology, Maslow (1970) and Rogers (1971), and existential psychologists Frankl (1963) and Yalom (1980) have suggested that growth can occur after trauma by emphasizing the meanings that can be found in stressful life events and traumas (Tedeschi et al., 2018). Additionally, different definitions have been proposed to describe this phenomenon beyond post-traumatic stress disorder (PTSD). Some of these include positive psychological changes (Yalom and Lieberman, 1991), stress-related growth (Park et al., 1996), and meaning-seeking (Bower et al., 1998). Before the term “post-traumatic growth” entered the literature, various other concepts were used in its place. Examples of these concepts include perceived benefits (McMillen et al., 1997), the transformation of trauma (Tedeschi & Calhoun, 1995), stress-related growth (Park et al., 1996), and positive psychological changes (Yalom & Lieberman, 1991). Tedeschi and Calhoun (2004) noted that they preferred to use the concept of post-traumatic growth because it better captured the essence of positive change. While post-traumatic events can lead to negative effects such as anxiety, depression, and maladaptive problem-solving (Tedeschi, 1998), they can also lead to positive effects.

Traumatic events can cause negative effects such as anxiety, depression, and maladaptive problem-solving in individuals (Tedeschi, 1998). Still, in some cases, they can also

lead to positive outcomes (İzgüden & Erdem, 2020). Individuals who can recover relatively quickly from the effects of trauma, derive meaningful insights from their experiences, and use these insights as a turning point in their lives may develop a stronger sense of self at the end of the process (Çam & Uğuz, 2023; Tedeschi, 1998). These positive changes that emerge while coping with difficult life conditions are called “post-traumatic growth” (Ramos & Leal, 2013). This concept is defined not only as protection from the negative effects of coping with traumatic events, but also as new perspectives, values, and life experiences that develop after such experiences (Tedeschi & Calhoun, 2004). Indeed, while some individuals experience post-traumatic depression, anxiety disorder or PTSD, others may experience positive transformations such as finding new meaning in life, redefining priorities, strengthening social relationships, and increasing psychological resilience (Shakespeare-Finch et al., 2003). Such developmental processes contribute to increased ability to express oneself, greater capacity to understand others, and a greater willingness to help others as they become more aware of their vulnerabilities (Weiss, 2004).

These changes associated with post-traumatic growth are explained by five sub-dimensions: “personal strength,” “appreciation of life,” “new opportunities,” “relationships with others,” and “spiritual change” (Tedeschi & Calhoun, 1996). Personal strength is associated with increased confidence in coping with future challenges and a sense of feeling stronger after a traumatic experience (Lindstrom et al., 2013). Appreciation of life refers to an individual's realization that life can change quickly after negative experiences, viewing survival as a gift, and a deeper understanding of the value of everything they have (Ramos & Leal, 2013; Tedeschi et al., 2022). New opportunities include discovering new paths after a challenging experience, daring to change, and focusing on living in the moment rather than negativity (Schroevers & Teo, 2008; Tedeschi & Calhoun, 2004). Relationships with others involve an individual's increased openness and search for support from loved ones after trauma, leading to closer bonds and greater empathy (Calhoun et al., 2000; Tedeschi & Calhoun, 1996; Tedeschi & Calhoun, 2004). Spiritual change refers to an increase in an individual's belief in a higher spiritual power in the face of adversity or, even without strong religious ties, undergoing spiritual transformation through existential questioning (Lindstrom et al., 2013; Tedeschi & Calhoun, 2004). At this point, a multidimensional examination of the factors determining an individual's trajectory after trauma is necessary to clarify why some individuals move toward pathology while others move toward growth. The relevant literature indicates that individuals with positive personality traits (Tedeschi & Calhoun, 1996), high resilience (Salim et al., 2015), optimism, self-aggrandizement, a sense of emotional acceleration (Agaibi & Wilson, 2005; Tedeschi & Calhoun, 2004), strong emotional sensitivity, the ability to care for others in a healthy way, and the capacity to initiate (Özçetin & Hiçdurmaz, 2017), and a high perceived level of social support (Özcan & Arslan, 2020) have a higher potential for post-traumatic

growth. Conversely, factors such as neuroticism and high levels of complicated grief after trauma (Engelkemeyer & Marwit, 2008) can be considered factors that hinder post-traumatic growth and increase the risk of developing post-traumatic stress disorder (Linley & Joseph, 2004).

Research on post-traumatic growth has shown that individuals can experience meaningful psychological growth after various traumatic experiences. For example, in a longitudinal study of cancer patients and their spouses, participants were reported to have experienced significant levels of PTG, and a negative correlation was found between age and post-traumatic support levels (Manne et al., 2004). Shakespeare-Finch and Barrington (2012) emphasize that supporting others after trauma contributes to the post-traumatic support process. Personality traits and coping mechanisms are also noted as influential factors in PTG (King & Hicks, 2009). In a meta-analysis by Prati and Pietrantonio (2009) encompassing 103 studies, optimism, social support, and coping strategies were reported to have significant effects on PTG. In studies conducted with parents of children diagnosed with cancer, hope, social support, and spirituality were found to be positively associated with post-traumatic growth. Moreover, educational level and knowledge about the disease were shown to create significant differences in PTG (Güvenir, 2019). Similarly, research focusing on mothers of children with cancer indicated that hope and self-efficacy were positively related to PTG, with hope emerging as a significant predictor of PTG (Behzadi et al., 2018). Studies conducted in the context of natural disasters have yielded comparable findings. Following the Wenchuan Earthquake, coping strategies were found to mediate the relationship between social support and PTG (He et al., 2013). Another study with earthquake survivors reported a positive relationship between post-traumatic stress disorder (PTSD) symptoms and PTG and found that women exhibited higher levels of both PTSD and PTG compared to men (Jin et al., 2014). Likewise, research conducted with adolescents who experienced the Ya'an Earthquake demonstrated that social support positively predicted PTG and negatively predicted PTSD. At the same time, hope was identified as a strong predictor of PTG (Zhou et al., 2018). Overall, these findings suggest that social support, personal resources such as hope and self-efficacy, and effective coping strategies play a critical role in the PTG process across different types of traumatic experiences.

Social support facilitates the emotional healing process and strengthens individuals' capacity to readjust by preventing them from feeling alone after a traumatic experience (Prati & Pietrantonio, 2009). Personal resources such as hope, optimism, and self-efficacy help individuals cope with the adverse effects of trauma and make sense of the experience (Gallagher et al., 2020). Effective coping strategies reduce current stress and help derive new meanings from the event and develop positive expectations for the future (Prati & Pietrantonio, 2009). Together, these factors strengthen individuals' psychological resilience after traumatic

experiences and foster meaningful, lasting positive change (Li et al., 2022). Therefore, PTG is not merely a condition that arises spontaneously after trauma; it is a dynamic developmental process shaped by the interaction of social environmental support, individual resources, and conscious coping strategies (Azeem & Kiran, 2022). Despite the rapid growth of knowledge in PTG in recent years, bibliometric studies that systematically reveal trends, thematic concentrations, and national and international collaboration networks in existing research remain limited. This study uses bibliometric methods to analyze the PTG literature and identify publication trends, thematic clusters, and collaboration networks. Thus, by clarifying the field's current state, the study aims to provide a strategic perspective on future research directions. Studies on PTG have generally focused on specific samples (e.g., cancer patients, natural disaster victims) and a limited number of variables. However, the lack of studies that comprehensively reveal research trends, thematic foci, and international collaboration networks in the literature underscores an information gap in this field. This study's originality lies in its systematic evaluation of national and international PTG research to map the field's current state and provide a strategic framework for identifying future research directions. The aim is to create a comprehensive knowledge base to guide academics and practitioners in PTG research. In this context, the research questions have been defined as follows:

1. How has the number of publications related to PTG changed over the years?
2. Who are this field's most prolific authors, institutions, and countries?
3. What are the key words and thematic clusters that stand out in the PTG literature?
4. What is the structure of international collaboration networks, and which countries are at the center?
5. Which studies receive the most citations in PTG-related publications?
6. How have the topics examined in PTG research changed over time?
7. Is there a relationship between the number of citations in publications and journal impact factors?

Method

Research Design

This study adopted a bibliometric mapping approach, combining performance analysis and science-mapping techniques, to systematically examine scientific production on post-traumatic growth. Bibliometric mapping was chosen because it allows for a comprehensive evaluation of a research field's structural and conceptual landscape, facilitating the identification of publication trends, influential authors and institutions, collaborative networks, and thematic evolutions over time (Cobo et al., 2011; Zupic & Čater, 2015). This approach is particularly well-suited to large datasets, providing a descriptive overview and a relational mapping of the knowledge domain.

Procedure

Four basic criteria were used to determine which studies to include in the analysis: the publication must focus on post-traumatic growth, be indexed in the Web of Science (WoS) database, have been published between 1980 and 2025, and be classified as an article or review. Although the concept of post-traumatic growth was formally introduced in 1995, the earlier start date was deliberately selected to capture preliminary and conceptually related studies that addressed positive psychological changes following trauma before the formalization of the term. Within this scope, a search was conducted in WoS using the keyword “post-traumatic growth,” and irrelevant results were filtered out, leaving only publications meeting the specified criteria in the dataset. Two main approaches stand out in the preparation of bibliometric datasets (Zupic & Čater, 2015). The first approach involves searching databases using keywords or keyword groups related to the specified topic and selecting studies that meet predefined criteria through detailed screening. This approach is commonly employed in studies focusing on a specific subject area and was adopted in the present study. The second approach involves selecting one or more specific journals and including all studies published in these journals, or studies identified as relevant through manual review, in the analysis. This latter approach, which is preferred for comprehensive evaluations of a particular research area, has been widely applied in recent years in both subject-based and country/region-focused bibliometric studies (Begeny et al., 2018; Fejes & Nylander, 2014; Hallinger, 2020; Kovačević & Hallinger, 2020).

Data Collection Tools and Process

The study aims to examine the bibliometric properties of publications related to the concept of post-traumatic growth. For this purpose, an online search was conducted using the Web of Science database. A search using the keyword “post-traumatic growth” found 4,267 academic studies registered in the Web of Science database. The bibliometric characteristics of the relevant studies (Production of Sources Over Time, Production of Authors Over Time, Common Citation Network, Historiography, Most Relevant Links, Countries of Relevant Authors, Trending Topics, Intercountry Cooperation, Thematic Map, Annual Scientific Production) are examined in detail in another section.

Table 1 presents the main bibliometric indicators for publications on post-traumatic growth from the Web of Science (WoS) database, covering the period 1980-2025. The table includes general descriptive statistics, such as the dataset's time span, the total number of publications, the number of sources, the annual growth rate, document types, average citation metrics, keyword counts, and authorship characteristics.

Table 1.

Main Bibliometric Information

Description	Results	Description	Results
<i>Main information about the data</i>		<i>Document types</i>	
Timespan	1980:2025	Letter	5
Sources (Journals, Books, etc.)	1692	Letter; early access	1
Documents	4267	Meeting abstract	175
Annual growth rate %	13.67	News item	1
Document average age	7.46	Note	3
Average citations per doc	24.17	Proceedings paper	30
References	162607	Reprint	1
<i>Document contents</i>		Retraction	1
Keywords plus (ID)	7671	Review	418
Author's keywords (DE)	8838	Review: book chapter	4
<i>Authors</i>		Review: early access	6
Authors	18431	Review:retracted publication	1
Authors of single-authored docs	272	Article; data paper	1
<i>Authors collaboration</i>		Article; early access	89
Single-authored docs	315	Article: proceedings paper	33
Co-Authors per Doc	5.62	Article: retracted publication	1
International co-authorships %	19.19	Book	2
<i>Document types</i>		Book review	13
Article	3370	Editorial material	53
Article; book chapter	52	Editorial material; book chapter	7

Data Analysis

Bibliometric analyses were conducted by examining 4,267 studies retrieved from the Web of Science (WoS) database via a topic-based search (title, abstract, and author keywords) using the keyword “post-traumatic growth,” and subsequently filtering them according to the specified inclusion criteria. The data were downloaded in BibTeX format and analyzed using the *bibliometrix* package (Aria & Cuccurullo, 2017) in RStudio. During the analysis, an initial data-cleaning stage was conducted to enhance the accuracy and reliability of the bibliometric results. In this stage, duplicate records resulting from multiple indexations of the same publication were removed, publications that used the term “post-traumatic growth” in unrelated or metaphorical contexts were excluded, and records with incomplete bibliographic information were eliminated. In addition, variations in author and institutional names were standardized through author name disambiguation procedures, and keywords were merged to ensure semantic consistency, with synonymous terms grouped under a single representative keyword. The analyses were conducted using both fundamental bibliometric indicators and network-based relational analyses. The basic analyses examined scientific production by year (Annual Scientific Production), journal productivity over time (Sources’ Production over Time), the most productive authors, and citation performance (Authors’ Production and Citation Analysis). In relational analyses, co-authorship, co-citation, and co-word networks were constructed to examine collaboration patterns, intellectual structures, and conceptual relationships within the field. Trend Topics analysis was performed using keyword frequency over time to identify the most frequently used concepts by year and the periods when new ideas were introduced into the literature. Furthermore, thematic map analysis was conducted using centrality and density measures of keyword clusters to classify research themes into four categories: core themes, driving themes, niche themes, and declining themes, according to their level of development and relevance within the field. Historical citation network analysis (historiography) was employed to identify influential studies and authors that have represented turning points in the evolution of post-traumatic growth research. All analyses were performed using the *bibliometrix* package functions, including *biblio analysis*, *network plot*, *thematic map*, *trend topics*, *hist. network*, and *conceptual structure*.

Results

This study presents a bibliometric analysis of the concept of post-traumatic growth. The analysis is presented by classifying the findings by publication year and journal, author and citation distribution, the higher education institutions and countries producing publications on the subject, and the most frequently used concepts and their distribution.

Distribution of Studies by Year and Journal of Publication

The graph below shows the change in the annual number of scientific publications in the field of post-traumatic growth.

Figure 1.

Annual Scientific Production

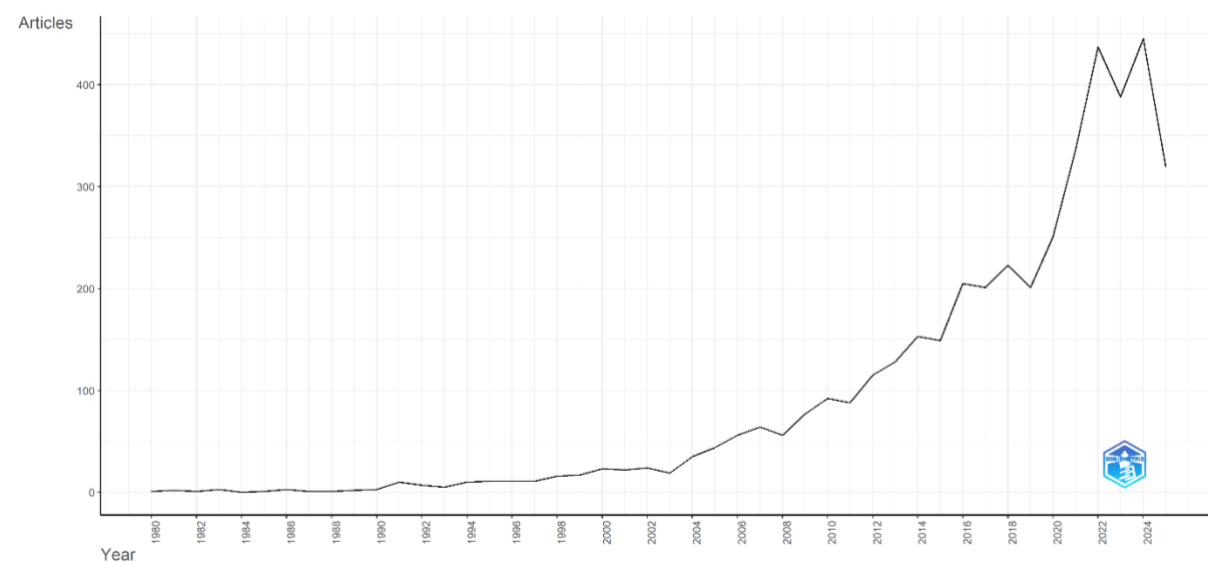


Figure 1 shows the scientific output of research on the concept of post-traumatic growth between 1980 and 2024.

Building on this general production trend, Figure 2 focuses on the productivity of individual sources over time, highlighting which journals have contributed most to the dissemination of research on post-traumatic growth.

Figure. 2

Sources' Production over Time

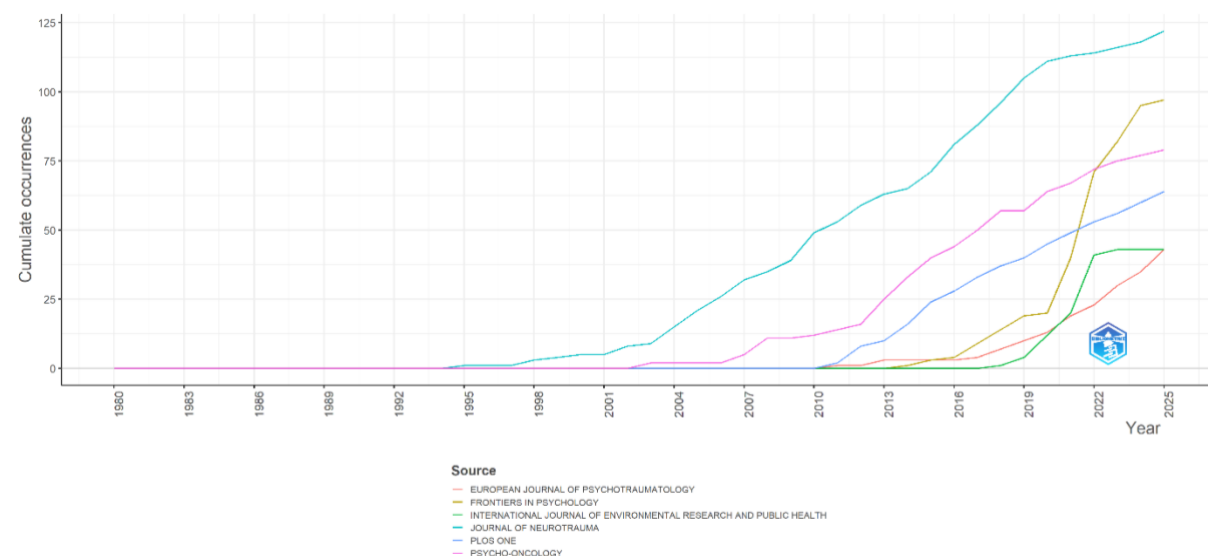


Figure 2 shows the productivity of sources over time. According to this, the Journal of Neurotrauma began publishing studies in this field in 1995. In 2025, the journal published approximately 125 studies on post-traumatic growth, making it the most productive journal on this topic. Although it published its first article on post-traumatic growth in 2013, Frontiers in Psychology is the second most productive journal in this field. Psycho-Oncology, PLoS One, International Journal of Environmental Research and Public Health, and European Journal of Psychotraumatology are among these journals.

Authors Working on the Research Topic and Citation Distribution

Analyses showing the annual publication and citation performance of the most prolific authors in the field of post-traumatic growth are presented in Figure 3.

Figure 3.

Authors' Production over Time

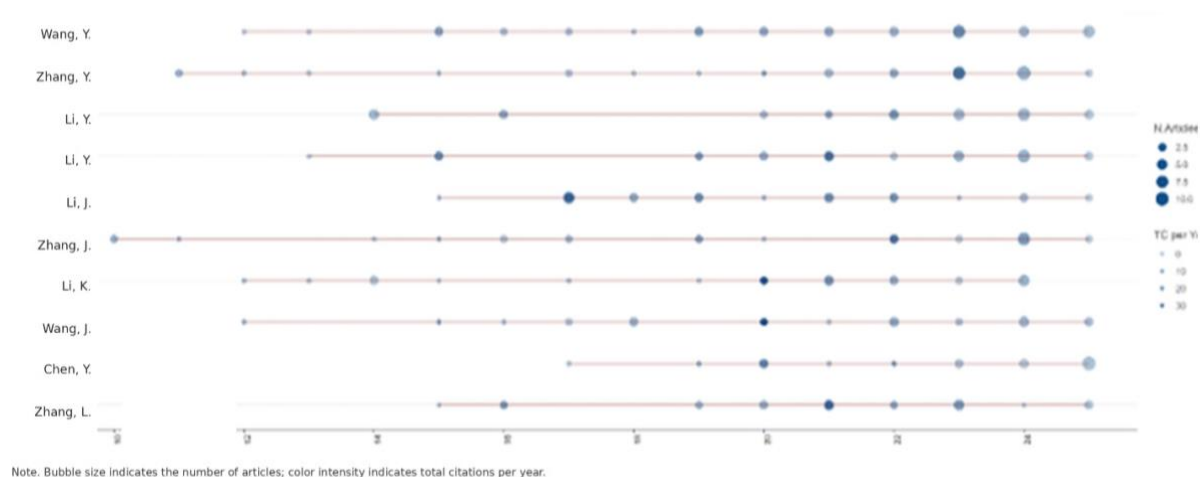


Figure 3 illustrates the annual publication and citation patterns of the most productive authors in the post-traumatic growth literature. Publication activity was relatively limited during the early years covered by the analysis, with most authors producing only a small number of articles annually. A noticeable increase occurred after 2015, particularly in the publication trajectories associated with Wang, Zhang, and Li. Citation performance was most pronounced between 2020 and 2022, when several authors simultaneously demonstrated greater publication activity and higher citation intensity. Wang and Zhang reached particularly prominent levels during this period, while Li and Zhang also displayed sustained contributions to the literature. Although publication and citation activity remained comparatively high in 2023 and 2024, the patterns shown in the figure suggest some variation across authors rather than a uniform decline. Overall, the findings indicate that both author productivity and citation visibility became more concentrated during the most recent period examined.

Building on the identification of leading contributors, Figure 4 visualizes the co-citation network, illustrating how frequently cited authors cluster together and revealing the intellectual structure underlying PTG research.

Figure 4.

Co-citation Network

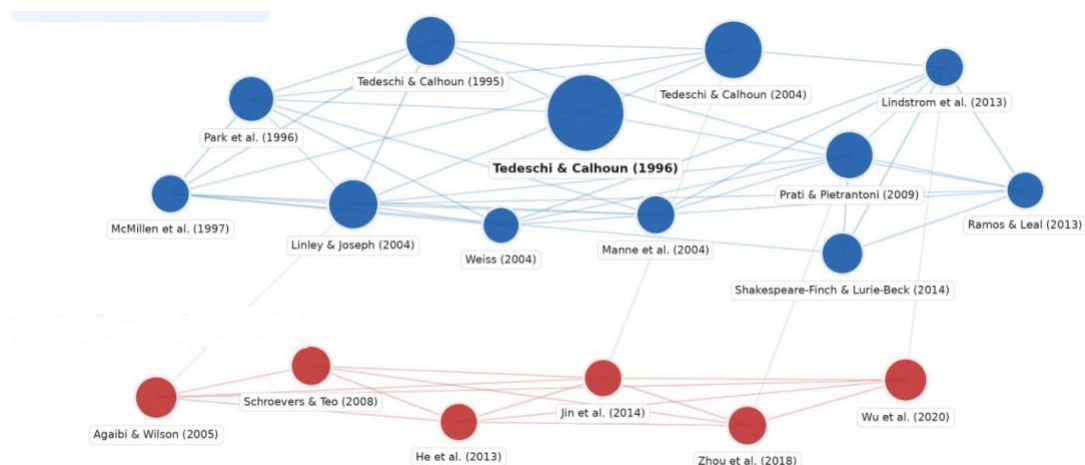


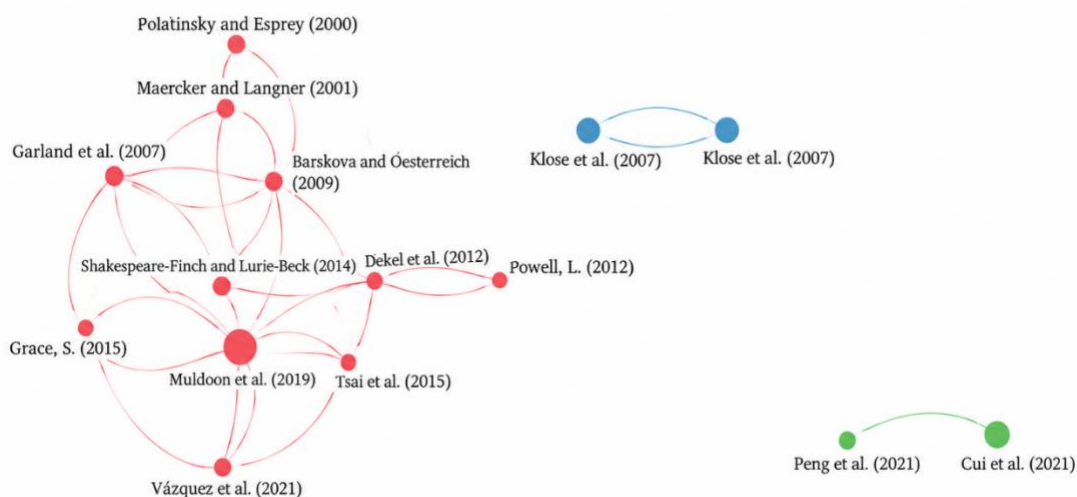
Figure 4 shows the standard citation network structure of the literature examined in the study. The circles in the figure represent the most cited authors; the size of the circles represents the total number of citations received by the author, and the colors represent different citation clusters. The lines between the nodes indicate the frequency with which two authors are cited in the same studies. Two main clusters stand out in the network structure. The blue cluster is dominant in the field and contains closely connected authors. Tedeschi (1996), located at the center of this cluster, is a core reference that has received many citations and has established strong connections with other studies within the cluster. It is understood that the blue cluster generally comprises sources that shape the main theoretical framework of the research and are frequently referenced from a methodological perspective. In contrast, the red cluster is smaller. While this cluster has strong internal connections, it shows limited interaction with the blue cluster. This suggests that the red cluster represents literature focused on a secondary or complementary subtopic of the study.

Building on the co-citation patterns shown in Figure 4, Figure 5 presents the historiograph, mapping the chronological development of influential authors and publications in post-traumatic growth research, and illustrating how foundational works have shaped subsequent studies.

Figure 5 presents the historical citation network of the studies included in the analysis. Each node represents a cited publication, while the connections between nodes indicate citation relationships among the publications. Node size reflects the relative prominence of

each publication within the network, and different colors represent distinct clusters of interconnected studies.

Figure 5.
Historiograph



The network comprises three clusters. The red cluster is the largest and traces a line of research extending from early studies of trauma-related growth and perceived benefits to more recent investigations of clinical adaptation and post-traumatic growth. Within this cluster, Polatinsky and Esprey (2000), Maercker and Langner (2001), Garland et al. (2007), Barskova and Oesterreich (2009), Dekel et al. (2012), Shakespeare-Finch and Lurie-Beck (2014), Tsai et al. (2015), Muldoon et al. (2019), and Vázquez et al. (2021) occupy different positions in the historical development of the literature. The blue cluster contains Klose et al. (2007) and remains isolated from the principal post-traumatic growth network. Because this publication concerns growth hormone deficiency rather than post-traumatic growth, its isolated position may reflect bibliographic retrieval noise rather than a distinct methodological orientation within the field. The green cluster comprises the studies of Peng et al. (2021) and Cui et al. (2021), both of which examined post-traumatic growth among frontline nurses during the COVID-19 pandemic. This cluster therefore represents a recent context-specific extension of post-traumatic growth research.

Distribution of Affiliations and Countries Producing Publications on the Researched Topic

Figure 6 presents analyses of the most relevant sources by publication volume and the journals contributing the most documents to post-traumatic growth research.

Figure 6.

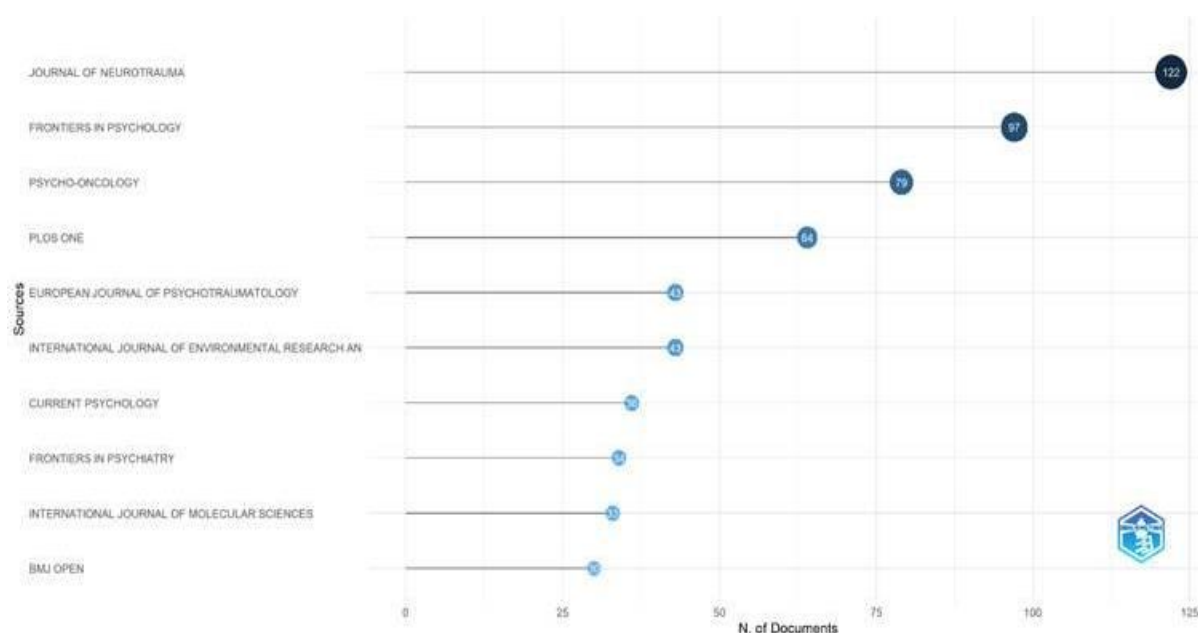
Most Relevant Affiliations

Figure 6 shows the productivity of different sources. The highest productivity is in the Journal of Neurotrauma with 122 studies. Frontiers in Psychology has 97 publications; Psycho-oncology has 79; PLoS One has 54; the European Journal of Psychotraumatology and the International Journal of Environmental Research have 43 each; Current Psychology has 36; Frontiers in Psychiatry has 34; the International Journal of Molecular Sciences has 33; and BMJ Open has 30.

Figure 7.

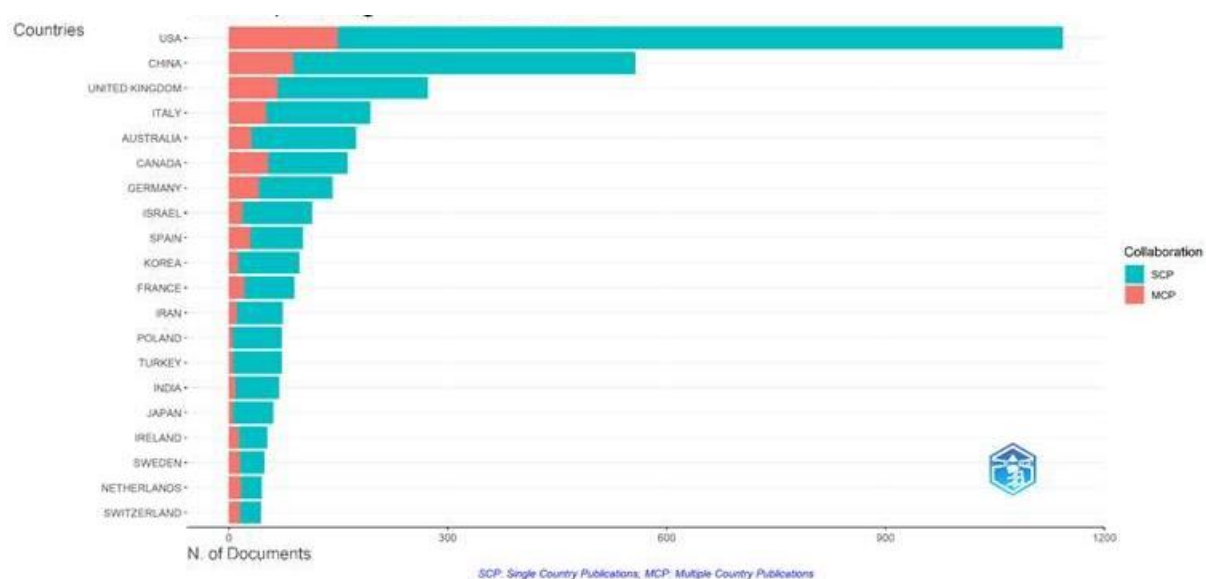
Corresponding Authors' Countries

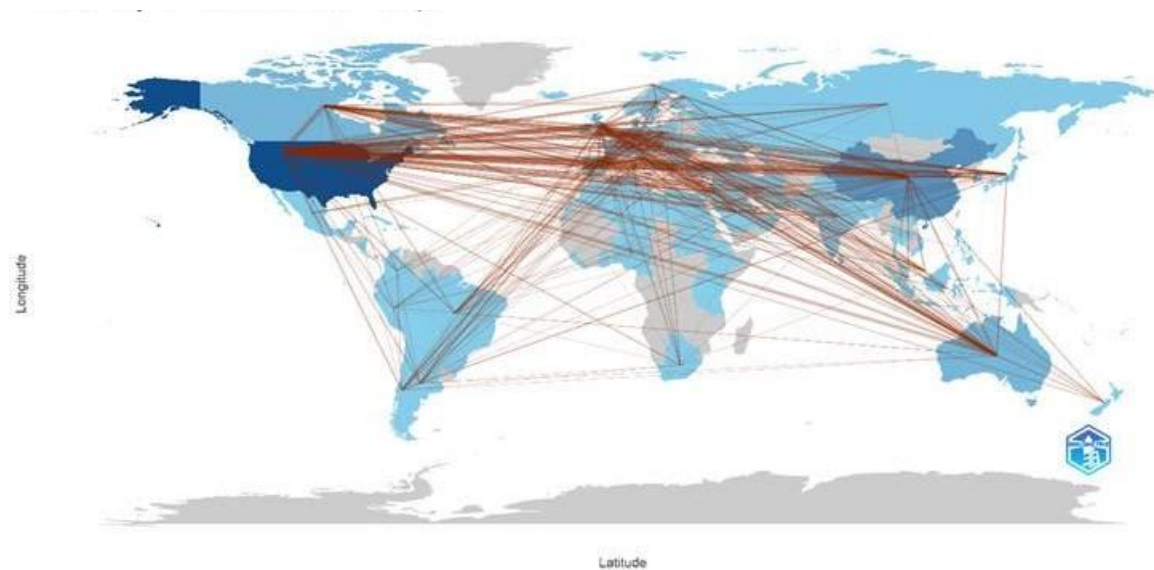
Figure 7 presents the distribution of countries of corresponding authors, distinguishing between single- and multiple-country publications to illustrate patterns of international collaboration in post-traumatic growth research.

Figure 7 shows the countries of the authors and whether they are single- or multiple-country publications. Red areas indicate various publications, while blue areas represent single-country publications. According to this, the USA is the leader in both categories. China and the United Kingdom follow the USA. Looking at the table as a whole, it can be seen that single-country publications outnumber multiple publications.

Figure 8 illustrates the country collaboration map, visualizing the network of international partnerships in post-traumatic growth research and highlighting the most active connections between nations.

Figure 8.

Countries Collaboration



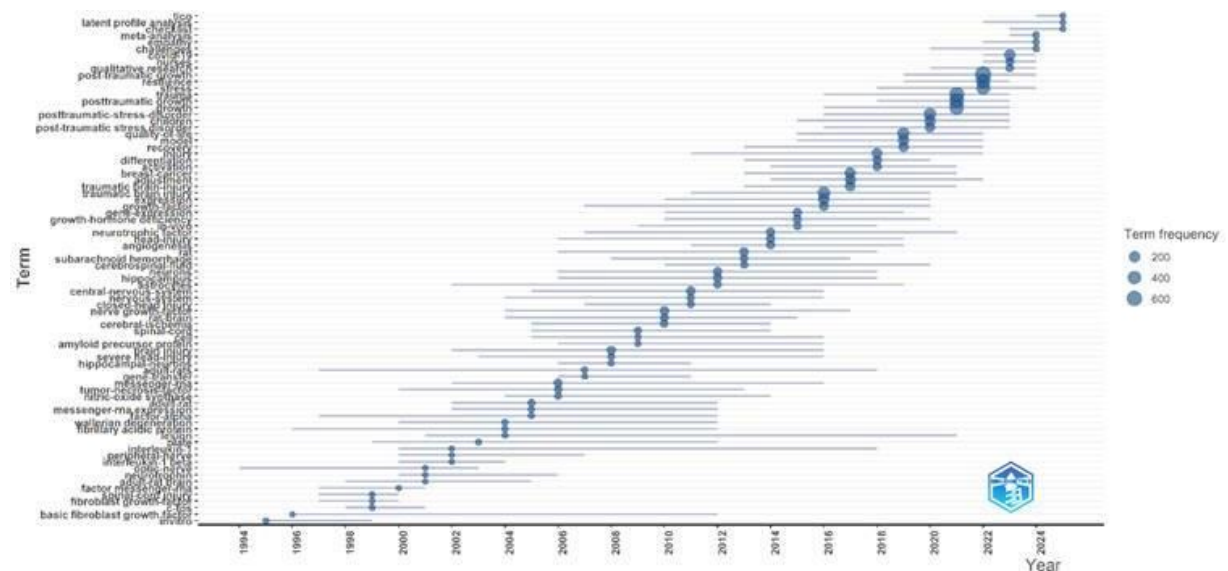
The Country Collaboration Map in Figure 8 visualizes scientific collaborations between countries based on the publications examined. The map highlights particularly intense collaborations between the United States, Western European countries (the United Kingdom, Germany, and France), and Asia-Pacific countries such as China, Japan, and Australia. These countries' high research capacity positions them at the center of international scientific collaboration. In contrast, African and South American countries are represented on the map with more limited connections, with only South Africa and Brazil standing out regionally. Overall, the map shows that scientific collaborations are unevenly distributed globally.

The Most Frequently Used Concepts Related to the Subject Under Investigation and Their Distribution

Figure 9 presents analyses of trending topics in post-traumatic growth research and the emergence and frequency of the most frequently used terms in the literature over time.

Figure 9.

Trend Topics



The Trend Topics graph in Figure 9 visualizes the evolution and frequency of key terms that have emerged in the literature over the years. Upon examining the graph, it is evident that research topics have diversified, particularly after 2010, and that specific terms (e.g., “posttraumatic stress,” “meta-analysis,” “latent profile analysis”) have emerged prominently. It is noteworthy that new terms have entered the literature more frequently in recent years and have become more prevalent. This reflects the field's dynamic nature and the temporal evolution of research trends, while also indicating which topics attract greater scientific interest.

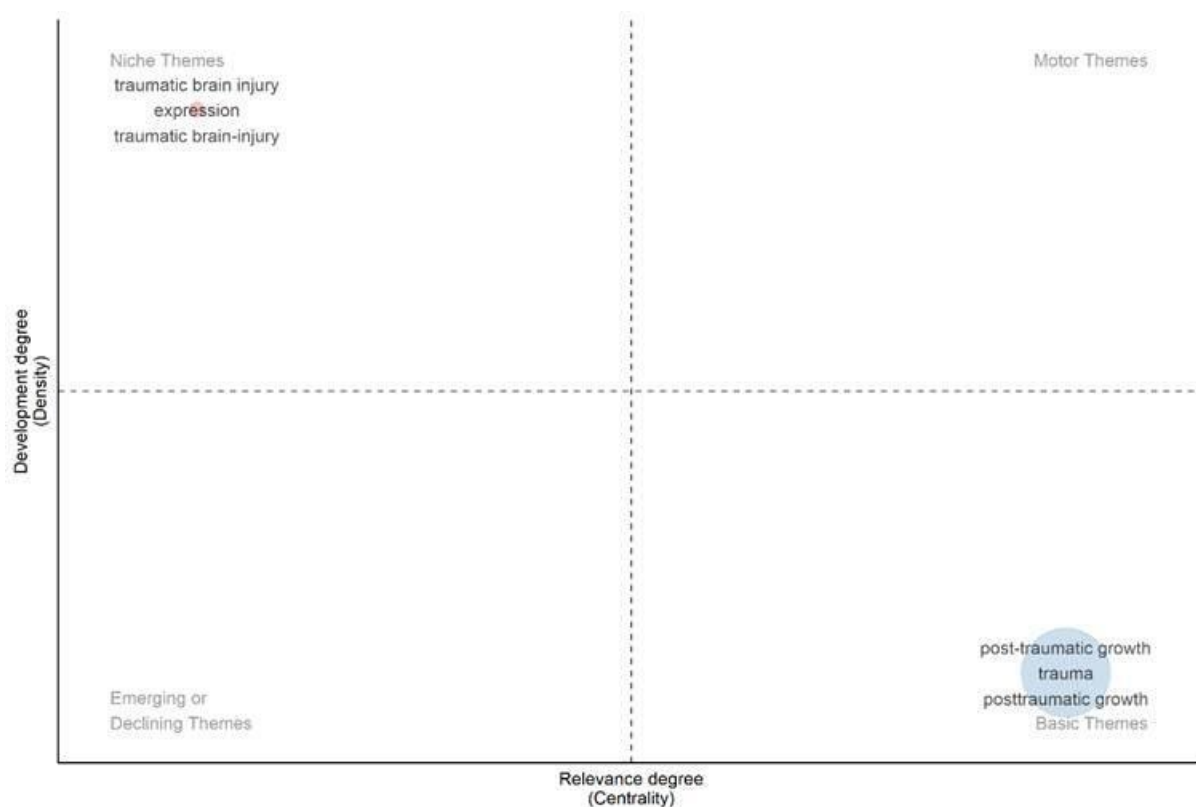
Figure 10 presents a thematic map categorizing key concepts in post-traumatic growth research by degree of development and centrality within the field.

The thematic map in Figure 10 shows that the key concepts analyzed are divided into four thematic clusters based on their level of development and degree of importance within the field. The “Basic Themes” category in the lower-right section of the map includes concepts such as “post-traumatic growth,” “trauma,” and “post-traumatic growth,” which are highly related to the field but remain underdeveloped. The “Niche Themes” cluster in the upper left corner includes themes such as “traumatic brain injury” and “expression,” indicating that these concepts are well developed but have low centrality in the general field. There are no themes in the “Motor Themes” and “Emerging or Declining Themes” areas. This distribution reveals

that the research field is still taking shape around fundamental topics and that some niche topics, despite their high level of development, have limited presence in the general field.

Figure 10.

Thematic Map



Discussion

In this study, which systematically examines scientific production on post-traumatic growth, analyses were performed using the RStudio system. Using a bibliometric mapping approach that combines science-mapping techniques, the quantitative structure, global distribution, and thematic trends of the post-traumatic growth literature from 1980 to 2025 were comprehensively examined. When examining publication trends in the post-traumatic growth literature, 2004 emerges as a critical turning point: this year marked both the peak in publication volume and the field's maturation. The increase in publications observed after 2004 can be attributed to Tedeschi and Calhoun's (2004) theoretical conceptualization of Post-Traumatic Growth (PTG). This work provided researchers with a standardized conceptual framework and a psychometrically valid measurement scale, thereby facilitating empirical investigation. Whereas earlier trauma research predominantly emphasized negative outcomes,

this study contributed to a shift in academic focus toward positive psychological changes associated with traumatic experiences beginning in the mid-2000s. The 2000s, marked by heightened global stressors such as the September 11 attacks and the 2004 Indian Ocean tsunami, underscored the need for more systematic empirical examinations of psychological adaptation and growth following trauma.

The sharp increase between 2019 and 2020 points to a significant turning point tied to the COVID-19 pandemic. The pandemic provided researchers with a natural environment to examine human responses to prolonged isolation, health concerns, and mass mourning. The channeling of broad academic resources and funding into pandemic-related research, coupled with a shift to digital data collection methods, accelerated peer review of pandemic-related studies and significantly improved publication processes, paving the way for a record number of publications on post-traumatic growth during the recovery period. The increase in PTG research conducted during the COVID-19 pandemic has revealed not only the quantitative impact of a global health crisis but also the culturally shaped responses of different societies to trauma. It has been argued that, particularly in East Asian societies, collectivist values, an emphasis on social responsibility, and meaning-focused coping strategies provide a supportive framework for growth processes following traumatic experiences (Heine & Hamamura, 2007; Wu et al., 2020). This provides a socio-cultural basis for the rapid proliferation of China-centered studies in the post-pandemic PTG literature and contributes to the renewed debate over the universality of Western-centered individualistic growth models.

A bibliometric analysis conducted by Kou and colleagues (2021) indicates that studies published between 2015 and 2020 were concentrated, with sub-themes such as oncology and psychological adjustment emerging. This trend parallels the general increase in trauma-related literature (Chang et al., 2024). In their literature review on severe trauma, Chang and colleagues (2024) identified a rapid increase in publications between 2018 and 2021, with global collaborations supporting this increase. In this context, the contributions of sources such as the *Journal of Neurotrauma* to the field since 1995, and the rapid rise of journals such as *Frontiers in Psychology* in recent years, indicate a shift in the literature and an interdisciplinary opening (Yang et al., 2023). Furthermore, the productivity of journals such as *Psycho-Oncology*, *PLOS One*, and *International Journal of Environmental Research and Public Health* (IJERPH) in this field indicates that post-traumatic growth is gaining increasing attention not only in clinical psychology but also in fields such as public health and oncology (Gao et al., 2024). These findings reveal that publication dynamics in the literature are directly related to social, scientific, and traumatic events during specific periods and that multidimensional factors influence the field's development.

In this context, the United States, China, and the United Kingdom stand out as leading contributors to the post-traumatic growth literature, not only for their academic productivity

but also for their socio-political, cultural, and scientific infrastructure. The US and the UK have long shaped the field's theoretical and methodological orientations through their deep-rooted research traditions in clinical psychology, psychiatry, and public health, their robust funding mechanisms, and their hosting of high-impact journals (Bonanno, 2004; Tedeschi & Calhoun, 2004). In contrast, China's rise to a central position in the PTG literature, particularly over the last fifteen years, can be explained by the country's emphasis on quantitative publication incentives in its science policies, high exposure to large-scale traumatic events, and increasing academic interest in culturally specific approaches to psychological adjustment processes (Sheikh, 2008; Wu et al., 2019).

Co-citation and histographic analyses in the field of post-traumatic growth reveal not only productivity trends but also intellectual structures and orientations. The co-citation network shows that densely connected clusters, centered on founding authors such as Tedeschi, have shaped the theoretical foundation of PTG (Chen et al., 2023; Tedeschi & Calhoun, 2004). The historical graph highlights the early influence of authors such as Polatinsky, Maercker, and Garland on PTG's development, indicating that PTG relates not only to individual post-traumatic change but also to studies of collective psychological resilience. In this regard, Muñoz-Muñoz and Mirón-Valdivieso's (2017) co-citation and collaboration network analyses demonstrate that strong intellectual clusters play a decisive role in shaping scientific fields; applied to PTG research, this finding supports the view that the field is structured around multiple interrelated sub-themes. Moreover, consistent with recent co-citation analyses, emerging research clusters associated with authors such as Peng et al. (2021) and Cui et al. (2021) point to the development of new thematic directions within PTG research (Bhadoriya & Dixit, 2024). Overall, these analyses enable a comprehensive understanding of the field's quantitative expansion and qualitative orientations, as well as the scientific community's organizational structure.

Publication productivity and international collaboration trends in post-traumatic growth are important in showing how the discipline is structured on a global scale. Bibliometric data indicate that journals such as the *Journal of Neurotrauma*, *Frontiers in Psychology*, and *Psycho-Oncology* lead the field (Abdelwahab et al., 2023; Yang et al., 2023). This situation has also been observed in field journals such as the *International Journal of Mental Health Systems*; Minas and colleagues show that the journal's international publication contribution has increased over six years and that there is a Western-centric production intensity despite the representation of low- and middle-income countries (Minas et al., 2014). Similarly, Andreea Nita's analysis of environmental impact assessments highlights that countries with high productivity also occupy central positions in collaboration networks, while many countries in the Southern Hemisphere are underrepresented (Nita, 2019). This trend is similar in the PTG literature; North America, Western Europe, and Asia-Pacific countries (especially

China, Japan, and Australia) stand out with high publication volumes, while contributions from Africa and South America are limited (Matveeva et al., 2022; Niu & Qiu, 2014). China's increasing central role in PTG research is related not only to the rise in the number of publications but also to the way trauma is experienced on a societal scale. The prevalence of collective traumatic experiences, such as earthquakes, epidemics, and rapid socio-economic transformations, has provided a strong research foundation for empirical studies of psychological adaptation and meaning-making processes (Norris et al., 2002). Furthermore, the institutional encouragement of publishing in internationally indexed journals within the Chinese academic system can be considered an essential structural factor that increases global visibility in the field of PTG (Wu et al., 2019).

Niu and Qiu (2014) have noted that China is increasingly taking on a central role in international collaboration, but this effect is lower in the social sciences. Analyses of post-Soviet countries also show similar results; Matveeva and colleagues (2022) report that these countries have diversified their collaboration strategies and increased their collaboration with the West, but their overall contributions have decreased. These data indicate that inequalities in cooperation persist at both the institutional and geographical levels in PTG research; addressing these inequalities appears critical for the field to achieve a more inclusive and pluralistic structure (Patel et al., 2011).

Analyzing trending topics and thematic clusters in post-traumatic growth research can be critical to understanding the field's evolution and how scientific interests have changed. Bibliometric analyses show that terms such as “meta-analysis,” “latent profile analysis,” and “post-traumatic stress” have come to the fore in the literature, especially after 2010 (Wilson et al., 2022). Kou and colleagues (2021) emphasized that, in their study covering 1996–2020, oncology, social support, and adaptation were rising in PTG research and shaping the research agenda. Similarly, Yang and colleagues' (2023) keyword co-occurrence analysis revealed that PTG studies, particularly those focusing on children and adolescents, have highlighted themes such as post-traumatic emotional responses and social support. Zhu and colleagues (2023) analyzed similar trends in the field of PTSD, noting that new concepts such as neural networks and biomarkers are also finding their place in post-traumatic psychological adaptation processes. Additionally, thematic maps show research content and which ideas are central or peripheral (Callon et al., 1991). Abdelwahab and colleagues (2023) explained how key concepts have changed and how these changes have influenced research directions in their comprehensive analysis of COVID-19 rehabilitation. On the other hand, Gao and colleagues (2024) tracked the evolution of themes in studies on post-traumatic osteoarthritis. They identified new directions, including therapy and molecular mechanisms, from the early stages through the present. When these studies are evaluated together, the dynamic structure of the

literature in the field of PTG, thematic concentrations, and new concepts shape the research ecosystem.

In addition, the trend topic and thematic map analyses of the existing products reveal both the temporal and structural dimensions mentioned in the literature. The trend topics graph shows an increase in the frequency and continuity of key concepts, especially after 2010, indicating an evolution towards a more systematic and methodologically diverse structure in the field. The thematic map supports this change at the structural level. The inclusion of the concepts of "post-traumatic growth" and "trauma" among the core themes shows that these concepts are at the center of the field but are still evolving. In contrast, the positioning of more specific topics as niche themes reveals that the field is broader but also undergoing expansionary research. When these findings are considered together with other bibliometric indicators, they show that the PTG literature is a research field that is both expanding and maturing, with increasing publication volume, level of collaboration, and methodological diversity.

Recommendations

Based on bibliometric findings in the field of post-traumatic growth, it is recommended that future research be structured in a more inclusive, interdisciplinary, and globally collaborative manner. Given the dominance of North America, Western Europe, and Asia-Pacific countries in the literature, supporting PTG research in underrepresented regions such as Africa, the Middle East, and South America will increase scientific diversity and help understand the impact of cultural differences. Furthermore, it is important to test the theoretical approaches emerging from co-citation and thematic analyses with greater methodological diversity, particularly by encouraging qualitative and mixed-methods alongside quantitative studies. On the other hand, central clusters formed by highly productive authors can offer strong opportunities for collaboration for new researchers; therefore, integrating early-career researchers into these networks should be supported. Studies focusing on innovative topics should be encouraged to enrich the "driving themes" and "emerging themes" categories that are lacking in bibliometric mapping. Finally, disseminating open-access publication policies and data-sharing practices will broaden the impact of research outputs and foster a more transparent and accessible scientific environment in the field of PTG.

Conclusion

This study examined scientific output on post-traumatic growth between 1980 and 2025 using bibliometric methods, revealing the field's developmental dynamics. The findings reveal a significant increase in PTG research, particularly after 2004, with publication and citation intensity peaking between 2015 and 2022. This process indicates that the field has entered a maturation phase and that interdisciplinary interaction has increased. Additionally,

co-citation analyses reveal that the theoretical framework pioneered by Tedeschi and Calhoun remains central. Thematic analyses show that concepts such as post-traumatic stress, social support, and adaptation have emerged, and new research clusters have formed in these areas. However, it is noteworthy that global production inequalities persist, particularly in the literature, where low- and middle-income countries are underrepresented. This situation limits cross-cultural generalizability.

Author's Contribution: YG: Data curation, Analysis, Investigation, Writing – original draft, Writing – review & editing. %30. OS: Methodology, Supervision, Writing – review & editing. %30. DD: Literature review, Writing – original draft, Writing – review & editing. %20. RD: Literature review, Writing – original draft, Writing – review & editing. %20

Compliance with Ethical Standards: This study was not subject to institutional review board approval, as this was not required.

Conflict of Interest: The authors declare that there are no conflicts of interest.

Informed Consent: Since there were no participants in the study, an informed consent form was not used.

Financial Disclosure: The authors declared that this study has received no financial support.

References

- Abdelwahab, S. I., Taha, M. M. E., & Aldhahi, M. I. (2023). Comprehensive analysis of research related to rehabilitation and COVID-19, hotspots, mapping, thematic evolution, trending topics, and future directions. *European Journal of Medical Research*, 28(1), 434-451. <https://doi.org/10.1186/s40001-023-01402-1>
- Agaibi, C. E., & Wilson, J. P. (2005). Trauma, PTSD, and resilience: A review of the literature. *Trauma, Violence, & Abuse*, 6(3), 195–216. <https://doi.org/10.1177/1524838005277438>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Association Publishing. <https://doi.org/10.1176/appi.books.9780890425596>
- Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Azeem, A., & Kiran, N. (2022). Post-traumatic stress disorder and post-traumatic growth among police officials: Role of coping, self-efficacy, and hope. *Journal of Islamabad Medical and Dental College*, 11(2), 85–90. <https://doi.org/10.35787/jimdc.v11i2.870>
- Barskova, T., & Oesterreich, R. (2009). Post-traumatic growth in people living with a serious medical condition and its relations to physical and mental health: A systematic review. *Disability and Rehabilitation*, 31(21), 1709–1733. <https://doi.org/10.1080/0963828090273844>
- Begeny, J. C., Levy, R. A., Hida, R., Norwalk, K., Field, S., Suzuki, H., Soriano-Ferrer, M., Scheunemann, A., Guerrant, M., Clinton, A., & Burneo, C. A. (2018). Geographically representative scholarship and internationalization in school and educational psychology: A bibliometric analysis of eight journals from 2002–2016. *Journal of School Psychology*, 70(2018), 44–63. <https://doi.org/10.1016/j.jsp.2018.07.001>
- Behzadi, M., Rassouli, M., Khanali Mojen, L., Pourhoseingholi, M. A., & Alaie Karahroudy, F. (2018). Posttraumatic growth and its dimensions in the mothers of children with cancer. *International Journal of Community Based Nursing and Midwifery*, 6(3), 209–217. <https://doi.org/10.30476/IJCBNM.2018.40828>
- Bhadoriya, N., & Dixit, A. (2024). A bibliometric analysis of talent management: Co-citation and cluster perspectives. *ShodhKosh Journal of Visual and Performing Arts*, 5(4), 552–565. <https://doi.org/10.29121/shodhkosh.v5.i4.2024.2232>
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, 59(1), 20–28. <https://doi.org/10.1037/0003-066X.59.1.20>
- Bower, J. E., Kemeny, M. E., Taylor, S. E., & Fahey, J. L. (1998). Cognitive processing, discovery meaning, CD4 decline, and AIDS-related mortality among bereaved HIV-seropositive me. *Journal of Consulting and Clinical Psychology*, 66(6), 979–986. <https://doi.org/10.1037/0022-006X.66.6.979>
- Calhoun, L. G., Cann, A., Tedeschi, R. G., & McMillan, J. (2000). A correlational test of the relationship between posttraumatic growth, religion, and cognitive processing. *Journal of Traumatic Stress*, 13(3), 521–527. <https://doi.org/10.1023/A:1007745627077>

- Callon, M., Courtial, J.P. & Laville, F.(1991). Co-word analysis as a tool for describing the network of interactions between basic and technological research: The case of polymer chemistry. *Scientometrics*, 22(1), 155–205. <https://doi.org/10.1007/BF02019280>
- Çam, M. O., & Uğuz, Ö. (2023). Organ nakli alıcılarında travma sonrası büyüme. *Gazi Sağlık Bilimleri Dergisi*, 8(1), 43–51. <https://doi.org/10.52881/gsbdergi.1159203>
- Chang, P.-L., Li, R., Wang, Z., Wang, C., & Wang, T. (2024). Bibliometric and visual analysis of severe trauma literature in the past 20 years. *MedComm – Future Medicine*, 3(2), 1–15. <https://doi.org/10.1002/mef2.81>
- Chen, J. L., Zheng, L., Nie, X.-F., & Zhang, Q. (2023). Bibliometric analysis of post-traumatic growth after childbirth. *Journal of Obstetrics and Gynaecology Research*, 49(7), 1770–1777. <https://doi.org/10.1111/jog.15675>
- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). Science mapping software tools: Review, analysis, and cooperative study among tools. *Journal of the American Society for Information Science and Technology*, 62(7), 1382–1402. <https://doi.org/10.1002/asi.21525>
- Cui, P. P., Wang, P. P., Wang, K., Ping, Z. C., Wang, P., & Chen, C. (2021). Post-traumatic growth and influencing factors among frontline nurses fighting against COVID-19. *Occupational and Environmental Medicine*, 78(2), 129–135. <https://doi.org/10.1136/oemed-2020-106645>
- Dekel, S., Ein-Dor, T., & Solomon, Z. (2012). Posttraumatic growth and posttraumatic distress: A longitudinal study. *Psychological Trauma: Theory, Research, Practice, and Policy*, 4(1), 94–101. <https://doi.org/10.1037/a0021865>
- Engelkemeyer, S. M., & Marwit, S. J. (2008). Posttraumatic growth in bereaved parents. *Journal of Traumatic Stress*, 21(3), 344–346. <https://doi.org/10.1002/jts.20338>
- Fejes, A., & Nylander, E. (2014). The Anglophone international(e): A bibliometric analysis of three adult education journals, 2005–2012. *Adult Education Quarterly*, 64(3), 222–239. <https://doi.org/10.1177/0741713614528025>
- Frankl, V. E. (1963). Man's search for meaning: An introduction to logotherapy. *American Journal of Orthopsychiatry*, 33(2), 390.
- Gallagher, M. W., Long, L. J., & Phillips, C. A. (2020). Hope, optimism, self-efficacy, and posttraumatic stress disorder: A meta-analytic review of the protective effects of positive expectancies. *Journal of Clinical Psychology*, 76(3), 329–355. <https://doi.org/10.1002/jclp.22882>
- Gao, S., Zhang, Y., Ge, Y., Lu, H., & Li, M. (2024). Global trends and current research in post-traumatic osteoarthritis: A bibliometric and visualization analysis from 2010 to 2024. *Medicine*, 103(47), 1–16. <https://doi.org/10.1097/md.00000000000040604>
- Garland, S. N., Carlson, L. E., Cook, S., Lansdell, L., & Specia, M. (2007). A nonrandomized comparison of mindfulness-based stress reduction and healing arts programs for facilitating posttraumatic growth and spirituality in cancer outpatients. *Supportive Care in Cancer*, 15(8), 949–961. <https://doi.org/10.1007/s00520-007-0280-5>
- Güvenir, B. (2019). *The effects of hope, social support, and spirituality on posttraumatic growth of parents of children with hematologic-oncologic diseases* [Unpublished master's thesis]. Karadeniz Technical University.

- Hallinger, P. (2020). Science mapping the knowledge base on educational leadership and management from the emerging regions of Asia, Africa, and Latin America, 1965–2018. *Educational Management Administration & Leadership*, 48(2), 209–230. <https://doi.org/10.1177/1741143218822772>
- He, L., Xu, J., & Wu, Z. (2013). Coping strategies as a mediator of posttraumatic growth among adult survivors of the Wenchuan earthquake. *PLOS ONE*, 8(12), 1–7. <https://doi.org/10.1371/journal.pone.0084164>
- Heine, S. J., & Hamamura, T. (2007). In search of East Asian self-enhancement. *Personality and Social Psychology Review*, 11(1), 4–27. <https://doi.org/10.1177/1088868306294587>
- İzgüden, D., & Erdem, R. (2020). The transformative role of trauma: Positive changes. *Ankara Sağlık Bilimleri Dergisi*, 9(2), 191–200. <https://doi.org/10.46971/ausbid.796425>
- Jin, Y., Xu, J., & Liu, D. (2014). The relationship between post-traumatic stress disorder and post-traumatic growth: Gender differences in PTG and PTSD subgroups. *Social Psychiatry and Psychiatric Epidemiology*, 49(12), 1903–1910. <https://doi.org/10.1007/s00127-014-0865-5>
- King, L. A., & Hicks, J. A. (2009). Detecting and constructing meaning in life events. *The Journal of Positive Psychology*, 4(5), 317–330. <https://doi.org/10.1080/17439760902992316>
- Klose, M., Jonsson, P., Abs, R., Erfurth, E. M., Huebner, A., Koltowska-Häggström, M., Monson, J. P., & Bengtsson, B. A. (2007). Low self-esteem and decreased quality of life in adults with growth hormone deficiency: The influence of adult growth hormone replacement therapy. *Hormone Research*, 68(5), 210–218. <https://doi.org/10.1159/000104174>
- Kou, W.-J., Wang, X., Li, Y., Ren, X.-H., Sun, J.-R., Lei, S.-Y., Liao, C.-Y., & Wang, M.-X. (2021). Research trends of posttraumatic growth from 1996 to 2020: A bibliometric analysis based on Web of Science and CiteSpace. *Journal of Affective Disorders Reports*, 4(4), 1–15. <https://doi.org/10.1016/j.jadr.2020.100052>
- Kovačević, J., & Hallinger, P. (2020). Finding Europe's niche: Science mapping the knowledge base on educational leadership and management in Europe, 1960–2018. *School Effectiveness and School Improvement*, 31(3), 405–425. <https://doi.org/10.1080/09243453.2019.1692875>
- Li, N., Cheng, H., & Lv, L. (2022). The relationship between posttraumatic growth, self-efficacy, and social support in burn patients: A cross-sectional study. *Burns*, 48(8), 1817–1825. <https://doi.org/10.1016/j.burns.2022.08.009>
- Lindstrom, C. M., Cann, A., Calhoun, L. G., & Tedeschi, R. G. (2013). The relationship of core belief challenge, rumination, disclosure, and sociocultural elements to posttraumatic growth. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5(1), 50–55. <https://doi.org/10.1037/a0022030>
- Linley, P. A., & Joseph, S. (2004). Positive change following trauma and adversity: A review. *Journal of Traumatic Stress*, 17(1), 11–21. <https://doi.org/10.1023/b:jots.0000014671.27856.7e>
- Maercker, A., & Langner, R. (2001). Persönliche Reifung (personal growth) durch Belastungen und Traumata. *Diagnostica*, 47(3), 153–162. <https://doi.org/10.1026/0012-1924.47.3.153>
- Manne, S., Ostroff, J., Winkel, G., Goldstein, L., Fox, K., & Grana, G. (2004). Posttraumatic growth after breast cancer: Patient, partner, and couple perspectives. *Psychosomatic Medicine*, 66(3), 442–454. <https://doi.org/10.1097/01.psy.0000127689.38525.7d>

Maslow, A. H. (1970). *Motivation and personality* (2nd ed.). Harper & Row.

Matveeva, N., Sterligov, I., & Lovakov, A. (2022). International scientific collaboration of post-Soviet countries: A bibliometric analysis. *Scientometrics*, 127(3), 1583–1607. <https://doi.org/10.1007/s11192-022-04274-0>

McMillen, J. C., Smith, E. M., & Fisher, R. H. (1997). Perceived benefit and mental health after three types of disaster. *Journal of Consulting and Clinical Psychology*, 65(5), 733–739. <https://doi.org/10.1037/0022-006X.65.5.733>

Minas, H., Wright, A. M., & Zwi, A. B. (2014). The International Journal of Mental Health Systems: A bibliometric review. *International Journal of Mental Health Systems*, 8(1), 1–9. <https://doi.org/10.1186/1752-4458-8-1>

Muldoon, O. T., Haslam, S. A., Haslam, C., Cruwys, T., Kearns, M., & Jetten, J. (2019). The social psychology of responses to trauma: Social identity pathways associated with divergent traumatic responses. *European Review of Social Psychology*, 30(1), 311–348. <https://doi.org/10.1080/10463283.2020.1711628>

Muñoz-Muñoz, A. M., & Mirón-Valdivieso, M. D. (2017). Analysis of collaboration and co-citation networks between researchers studying violence involving women. *Information Research: An International Electronic Journal*, 22(2), 1–15.

Nita, A. (2019). Empowering impact assessments, knowledge, and international cooperation through scientific collaboration. *Environmental Impact Assessment Review*, 77(7), 113–122. <https://doi.org/10.1016/j.eiar.2019.04.005>

Niu, H., & Qiu, J. (2014). Network structure, distribution and the growth of Chinese international scientific collaboration. *Research Evaluation*, 23(3), 219–231. <https://doi.org/10.1093/reseval/rvu010>

Norris, F. H., Friedman, M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60.000 disaster victims speak: Part I. An empirical review of the empirical literature, 1981–2001. *Psychiatry*, 65(3), 207–239. <https://doi.org/10.1521/psyc.65.3.207.20173>

Özcan, N. A., & Arslan, R. (2020). Travma sonrası stres ile travma sonrası büyüme arasındaki ilişkide sosyal desteğin ve maneviyatın aracı rolü. *Elektronik Sosyal Bilimler Dergisi*, 19(73), 299–314. <https://doi.org/10.17755/esosder.548142>

Özçetin, Y. S. Ü., & Hiçdurmaz, D. (2017). Kanser deneyiminde travma sonrası büyüme ve psikolojik sağlamlık. *Psikiyatri Gündel Yaklaşımlar*, 9(4), 388–397. <https://doi.org/10.18863/pgy.290285>

Park, C. L., Cohen, L. H., & Murch, R. L. (1996). Assessment and prediction of stress-related growth. *Journal of Personality*, 64(1), 71–105. <https://doi.org/10.1111/j.1467-6494.1996.tb00815.x>

Patel, V., Chowdhary, N., Rahman, A., & Verdeli, H. (2011). Improving access to psychological treatments: Lessons from developing countries. *Behaviour Research and Therapy*, 49(9), 523–528. <https://doi.org/10.1016/j.brat.2017.09.003>

Peng, X., Zhao, H.-Z., Yang, Y., Rao, Z.-L., Hu, D.-Y., & He, Q. (2021). Post-traumatic growth level and its influencing factors among frontline nurses during the COVID-19 pandemic. *Frontiers in Psychiatry*, 12, 632360. <https://doi.org/10.3389/fpsy.2021.632360>

- Polatinsky, S., & Esprey, Y. (2000). An assessment of gender differences in the perception of benefit resulting from the loss of a child. *Journal of Traumatic Stress*, 13(4), 709–718. <https://doi.org/10.1023/A:1007870419116>
- Prati, G., & Pietrantonio, L. (2009). Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis. *Journal of Loss and Trauma*, 14(5), 364–388. <https://doi.org/10.1080/15325020902724271>
- Ramos, C., & Leal, I. (2013). Posttraumatic growth in the aftermath of trauma: A literature review about related factors and application contexts. *Psychology, Community & Health*, 2(1), 43–54. <https://doi.org/10.5964/pch.v2i1.39>
- Rogers, C. R. (1971). *On becoming a person: A therapist's view of psychotherapy* (2nd ed.). Houghton Mifflin.
- Salim, J., Wadey, R., & Diss, C. (2015). Examining the relationship between hardiness and perceived stress-related growth in a sport injury context. *Psychology of Sport and Exercise*, 19(2015), 10–17. <https://doi.org/10.1016/j.psychsport.2014.12.004>
- Schroevers, M. J., & Teo, I. (2008). The report of posttraumatic growth in Malaysian cancer patients: Relationships with psychological distress and coping strategies. *Psycho-Oncology*, 17(12), 1239–1246. <https://doi.org/10.1002/pon.1366>
- Shakespeare-Finch, J., & Barrington, A. J. (2012). Behavioural changes add validity to the construct of posttraumatic growth. *Journal of Traumatic Stress*, 25(4), 433–439. <https://doi.org/10.1002/jts.21730>
- Shakespeare-Finch, J., & Lurie-Beck, J. (2014). A meta-analytic clarification of the relationship between posttraumatic growth and symptoms of posttraumatic distress disorder. *Journal of Anxiety Disorders*, 28(2), 223–229. <https://doi.org/10.1016/j.janxdis.2013.10.005>
- Shakespeare-Finch, J., Gow, K. M., & Smith, S. G. (2003). Personality, coping and posttraumatic growth in emergency ambulance personnel. *Traumatology*, 9(2), 58–71. <https://doi.org/10.1177/153476560300900202>
- Sheikh, A. I. (2008). Posttraumatic growth in the context of culture, religion, and spirituality. In L. G. Tedeschi, C. L. Park, & L. G. Calhoun (Eds.), *Posttraumatic growth: Positive changes in the aftermath of crisis* (pp. 165–186). Lawrence Erlbaum Associates.
- Tedeschi, R. G. (1998). Posttraumatic growth: Positive changes in the aftermath of crisis. In R. G. Tedeschi, C. L. Park, & L. G. Calhoun (Eds.), *Posttraumatic growth: Positive changes in the aftermath of crisis* (pp. 1–23). Lawrence Erlbaum Associates.
- Tedeschi, R. G., & Calhoun, L. G. (1995). *Trauma and transformation: Growing in the aftermath of suffering* (1st ed.). Sage.
- Tedeschi, R. G., & Calhoun, L. G. (1996). The post-traumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9(3), 455–471. <https://doi.org/10.1007/bf02103658>
- Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1–18. https://doi.org/10.1207/s15327965pli1501_01

- Tedeschi, R. G., Shakespeare-Finch, J., Taku, K., & Calhoun, L. G. (2018). *Posttraumatic growth: Theory, research, and applications* (1st ed.). Routledge.
- Tsai, J., Sippel, L. M., Mota, N., Southwick, S. M., & Pietrzak, R. H. (2016). Longitudinal course of posttraumatic growth among U.S. military veterans: Results from the National Health and Resilience in Veterans Study. *Depression and Anxiety*, 33(1), 9–18. <https://doi.org/10.1002/da.22371>
- Van der Kolk, B. (2022). *The body keeps the score: Brain, mind, and body in healing trauma* (2nd ed.). Penguin Books.
- Vázquez, C., Valiente, C., García, F. E., Contreras, A., Peinado, V., Trucharte, A., & Bentall, R. P. (2021). Post-traumatic growth and stress-related responses during the COVID-19 pandemic in a national representative sample: The role of positive core beliefs about the world and others. *Journal of Happiness Studies*, 22, 2915–2935. <https://doi.org/10.1007/s10902-020-00352-3>
- Weiss, T. (2004). Correlates of posttraumatic growth in married breast cancer survivors. *Journal of Social and Clinical Psychology*, 23(5), 733–746. <https://doi.org/10.1521/jscp.23.5.733.50750>
- Wilson, J., Smith, A., & Brown, L. (2022). Bibliometric analysis of post-traumatic growth research: Trends and thematic evolution. *Journal of Trauma and Stress Studies*, 35(4), 215–230. <https://doi.org/10.1002/jts.228>
- Wu, X., Kaminga, A. C., Dai, W., Deng, J., Wang, Z., Pan, X., & Liu, A. (2020). The prevalence of moderate-to-high posttraumatic growth: A systematic review and meta-analysis. *Journal of Affective Disorders*, 243(2019), 408–415. <https://doi.org/10.1016/j.jad.2018.09.023>
- Wu, X., Zhang, Y., Lin, C., & Zang, W. (2019). The effect of disaster exposure on PTSD symptoms: A meta-analysis. *Psychological Trauma: Theory, Research, Practice, and Policy*, 11(6), 653–661. <https://doi.org/10.1037/tra0000400>
- Yalom, I. D. (1980). *Existential psychotherapy* (1st ed.). Basic Books.
- Yalom, I. D., & Lieberman, M. A. (1991). Bereavement and heightened existential awareness. *Psychiatry*, 54(4), 334–345. <https://doi.org/10.1080/00332747.1991.11024563>
- Yang, K.-H., Lu, J., Duan, L., Tang, H., Bao, Z., & Liu, Y. (2023). Research hotspots and theme trends in post-traumatic growth: A co-word analysis based on keywords. *International Journal of Nursing Sciences*, 10(2), 154–162. <https://doi.org/10.1016/j.ijnss.2023.03.001>
- Zhou, X., Wu, X., & Zhen, R. (2018). Self-esteem and hope mediate the relations between social support and post-traumatic stress disorder and growth in adolescents following the Ya'an earthquake. *Anxiety, Stress, & Coping*, 31(1), 32–45. <https://doi.org/10.1080/10615806.2017.1374376>
- Zhu, W., Li, Y., Ma, X., Yang, H., Wang, Z., Shi, R., Shi, W., & Cong, B. (2023). Bibliometric analysis of post-traumatic stress disorder in forensic medicine: Research trends, hot spots, and prospects. *Frontiers in Psychology*, 13, 1–19. <https://doi.org/10.3389/fpsyg.2022.1074999>
- Zupic, I., & Cater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods*, 18(3), 429–472. <https://doi.org/10.1177/1094428114562629>

Travma Sonrası Büyüme Araştırmalarının Manzarasının Haritalanması: Küresel Bir Bibliyometrik ve Bilimsel Haritalama Analizi

Özet

Bu çalışma, travma sonrası büyüme literatüründe 1980–2025 arasında kaydedilen bilimsel üretimi bibliyometrik perspektifle inceleyerek alanın gelişimsel dinamiklerini ortaya koymayı hedeflemektedir. Travma sonrası büyüme, olumsuz deneyimlerin ardından bireyin yaşamını yeniden değerlendirmesi ve olumlu değişimler yaşaması olarak tanımlanmaktadır (Tedeschi ve Calhoun, 2004). Travma sonrası büyüme alanındaki bilimsel literatürün yapısal, tematik ve metodolojik gelişiminin sistematik biçimde analiz edilmediği görülmüştür. Bu araştırma, bahsedilen boşluğun doldurulması amacıyla 45 yıllık bir dönemi kapsayan bir bilim haritalama çalışması olarak tasarlanmış ve tamamlanmıştır.

Çalışma verileri Web of Science veritabanından elde edilmiştir. Veriler yayın üretkenliği, uluslararası iş birlikleri, yazarların eş atıf ağları ve tematik eğilimler kapsamında R Studio programında bilimsel haritalama yöntemleri kullanılarak analiz edilmiştir. Bulgulara göre 2004 yılı travma sonrası büyüme literatürü açısından bir dönüm noktası olmuştur. Bu yıldan sonra ilgili literatürdeki araştırma sayılarında gözle görülür bir artış yaşanmıştır. 2015-2022 döneminde yayın sayısı ve buna bağlı olarak atıf yoğunluğu zirve noktasına ulaşmıştır. Burada travma sonrası büyüme literatürünün disiplinlerarası etkileşimde önemli rol oynayan bir kavram olduğu ve alanda olgunlaşma evresine girildiği görülmektedir.

Eş atıf analiz bulgularına göre Tedeschi ve Calhoun'un (1996) geliştirdikleri kuramsal çerçevenin hâlihazırda alanın omurgasını şekillendirmeye devam ettiği görülmüştür. Çalışma bulguları ile elde edilen tematik haritalar incelendiğinde “travma sonrası stres”, “sosyal destek”, “uyum”, “meta-analiz” ve “psikolojik dayanıklılık” gibi kavramların öne çıktığı görülmektedir. Bu kavramlar travma sonrası büyümenin klinik yanının haricinde toplumsal bağlamda da büyümekte olan bir araştırma yelpazesine sahip olduğunu göstermektedir.

Ülke bazlı analizler, yayın üretimi ve iş birliği açısından ABD, Çin ve Birleşik Krallık'ın öncü konumda olduğunu gösterse de Afrika, Orta Doğu ve Güney Amerika gibi bölgelerin literatürde yeterince temsil edilmemesi dikkat çekmektedir. Bu bulgu travma sonrası büyüme literatüründe küresel üretim eşitsizliklerinin sürdüğünü ve bulguların kültürlerarası genellenebilirliğini sınırladığını göstermektedir. Yüksek gelirli ülkelerde yürütülen araştırmaların ağırlıklı olarak nicel yöntemlere dayandığı, düşük ve orta gelirli ülkelerde ise metodolojik çeşitliliğin kısıtlı kaldığı tespit edilmiştir.

Araştırmanın sonuçlarına göre travma sonrası büyüme literatüründe yapılacak yeni çalışmalar için bir dizi önemli öneri sunulmaktadır. İlk olarak, alanın daha kapsayıcı, disiplinlerarası ve küresel iş birliğine dayalı bir araştırma yapısına yönelmesi gerekmektedir. Kuzey Amerika, Batı Avrupa ve Asya-Pasifik ülkelerinin literatürdeki baskınlığı göz önünde

bulundurulduğunda, temsil edilme oranı düşük olan Afrika, Orta Doğu, Güney Amerika gibi bölgelerde yürütülecek travma sonrası büyüme araştırmalarının desteklenmesi, bilimsel çeşitliliği artırarak kültürel farklılıkların etkilerini anlamaya olanak sağlayacaktır.

Eş-atıf ve tematik analizlerde bulunan sonuçlara göre kuramsal yaklaşımların daha geniş metodolojik çeşitlilikle test edilmesi önemli görülmektedir. Nitel ve karma yöntemlerin teşvik edilmesi, travma sonrası büyümenin kültürel, toplumsal ve bireysel boyutlarını derinlemesine anlamayı kolaylaştıracaktır. Ayrıca yüksek üretkenliğe sahip merkezî yazar kümeleri, yeni araştırmacılar için güçlü iş birliği fırsatları konumundadır.

Çalışmanın bir diğer önerisi, yenilikçi ve henüz gelişmekte olan temalara odaklanılmasıdır. Elde edilen sonuçlara göre “güdüleyici temalar” ve “yeni ortaya çıkan temalar” kategorilerinde eksiklikler bulunmaktadır. Bu boşluğun travma sonrası büyümenin toplumsal cinsiyet, dijitalleşme, afet sonrası dayanıklılık ve kültürel travma gibi çağdaş konularla ilişkilendirilmesiyle giderilebileceği düşünülmektedir. Açık erişim yayıncılığının ve veri paylaşımının yaygınlaştırılması, ilgili literatürdeki araştırma çıktılarının görünürlüğünü ve etkisini artıracak ve daha şeffaf, erişilebilir ve etkileşimli bir bilimsel ortamın oluşmasına katkı sunacaktır.

Sonuç olarak, bu çalışma travma sonrası büyüme literatürünün tarihsel gelişimini, tematik dönüşümünü ve küresel araştırma dinamiklerini bütüncül biçimde ortaya koymaktadır. Bulgular, alanın olgunlaşma sürecine girdiğini, ancak coğrafi ve metodolojik çeşitliliğin artırılmasına ihtiyaç duyulduğunu göstermektedir. Bu yönüyle araştırma, travma sonrası büyüme çalışmalarının gelecekteki yönelimlerine ışık tutan kapsamlı bir yol haritası niteliğindedir.