



Bereavement on children and adolescents: A bibliometric study

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ABSTRACT

Grief is an emotional response to the loss of someone or something significant. While most research on grief and bereavement, including bibliometric studies, has focused on adult populations or individuals with life-threatening conditions, studies involving pediatric populations remain limited. This study employed bibliometric methods to examine publication patterns on grief in children and adolescents. After conducting filtered Scopus searches, 1,436 articles were identified. The analysis and visualization were performed using R Base, R Studio, and VOSviewer. The United States is at the forefront of global research on grief in children and adolescents. Arizona State University has made the greatest number of scholarly contributions, while Kaplow JB is the most productive author. The 2000 study conducted by Wolfe J on children's end-of-life experiences, which could suggest anticipatory grief, holds the highest number of citations. The majority of studies have focused on the topics of causes of bereavement, the loss of human life, the symptoms that are associated with it, bereavement interventions, related factors, and psychological aspects. Researchers could employ the theme gaps to direct future research.

1. Introduction

Within the field of palliative care, the discussions cover not just primary palliative care and end-of-life care but also encompass the domain of bereavement care. Bereavement care includes education and support for grief before death, psychosocial and spiritual care that focuses on the family during the dying process, services to help and maintain the family and community members after death, and assisting individuals to transition to community-based support and long-term professional psychosocial care (Lichtenthal et al., 2024). Bereavement care is essential because bereaved individuals are susceptible to

developing more severe consequences, such as grief disorders, due to their potential vulnerability. The grief scale can be assessed using a variety of instruments, such as the Inventory of Complicated Grief (ICG) or Prolonged Grief Disorders-13-Revised (PG-13-R) (Kustanti et al., 2024). The prevalence of grief disorder after a loss in the general population was 9.8 % (Lundorff et al., 2017), whereas the prevalence of pre-loss grief symptoms was 24.8 % (Kustanti et al., 2022). Children and adolescents may experience bereavement in shorter episodes than adults. Still, bereaved individuals may experience "maladaptive grief" linked to impaired functioning, with estimates ranging from 10 % in population-based studies to 18 % in therapeutically referred youth

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(Kaplow et al., 2018; Melhem et al., 2011; Robin & Omar, 2014). Untreated pathological grief not only leads to psychological problems but also raises the likelihood of developing various issues such as smoking, drugs, and alcohol consumption (Pitman et al., 2020).

Even though bereavement care is an essential component of healthcare, it is often disregarded (Cooley, 1992). Healthcare services are given greater importance in areas where patients are still living. Following the patient's death, it appears that the bond between the family and the healthcare service has ceased. However, the literature on grief has expanded as a result of the investigation of loss and grief, mainly when grief disorder is included in the Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition – Text Revision (DSM-5-TR) and Prolonged Grief Disorder is included in the International Classification of Diseases – 11 (ICD-11). It demonstrates that recognition of bereavement care is growing. Three bibliometric studies have also concurred that the literature pertaining to grief and bereavement care is progressively escalating (Fernandes et al., 2016; Koukopoulos & Neimeyer, 2024; Li et al., 2023). Fernandes et al. (2016) investigated the scholarly output accessible in online publications focusing on palliative care and grief. Their study determined that grief is an experience directly associated with the patient and their family in the context of palliative care. Another bibliometric study primarily focuses on analysing and evaluating scientific research on prolonged grief disorder. The remarkable growth of the literature on grief disorder after 2017 is particularly noteworthy in their analysis (Koukopoulos & Neimeyer, 2024). Concurrently, a bibliometric study by Li et al. (2023) examined advancements in grief intervention study and identified that topics such as mortality, grief, and health, as well as emergent issues like COVID-19, grief among workers and disfranchised grief, had gained significant attention in recent years.

Despite the growing investigations on grief and bereavement care, it is not clear precisely the trend on the topic of childhood bereavement. Children may respond to grief differently depending on their developmental stage (Alvis et al., 2023). Grief in children and adolescents is non-linear and often involves regression (Revet et al., 2020). Meanwhile, due to their developmental immaturity, young children may experience difficulty in embracing the fact of death, and their response to this challenge can either be beneficial or detrimental (McNiell & Gabbay, 2017). The different phases of development must be considered to comprehend and accurately describe grief expressions in children and adolescents (Revet et al., 2020).

The issue of youngsters experiencing grief is significant, as it often leads to the development of psychopathology, particularly depression, which may lead to emotional vulnerability in the future (Osterweis et al., 1984a). Grief among children and adolescents can profoundly affect their emotional, psychological, and physical well-being, leading to intense sadness, behavioural changes, and physical symptoms like sleep disturbances and somatic complaints. They may experience cognitive impairments and social withdrawal, and unresolved grief can result in long-term mental health issues such as depression and anxiety. Therefore, the literature on childhood bereavement is crucial for the provision of appropriate bereavement care. The literature on childhood bereavement is indispensable for comprehending the distinctive emotional and developmental requirements of grieving children facilitating the development of personalized support strategies (Osterweis et al., 1984a). It also assists professionals in recognizing the long-term effects of loss on children, ensuring that they receive the necessary care to promote rehabilitation and resilience. However, past bibliometric studies did not intentionally concentrate on the topic of grief among children and adolescents (Fernandes et al., 2016; Koukopoulos & Neimeyer, 2024; Li et al., 2023). Consequently, this study aimed to assess and evaluate the advancements in the field of bereavement among children and adolescents by applying established bibliometric methodologies. Through the investigation of the publication trend on bereavement among children and adolescents, it will be possible to prioritise the themes that have not yet been explored in the future.

2. Methodology

2.1. Study design

Bibliometrics is a systematic and organized method used by various fields of study to combine and summarize research findings on a specific topic or guiding question (Mejia et al., 2021). This method contributes to developing and enhancing knowledge in the investigated subject. Bibliometric studies follow a comparable methodology to other literature review forms, encompassing four stages: formulating search terms, gathering research outcomes and constructing the dataset, summarizing the findings, and analysing the findings (Altarturi et al., 2020). Fig. 1 illustrates the bibliometric phases adopted from Sánchez-Sánchez et al. (2024) and Altarturi et al. (2020). The reporting standard is the BIBLIO checklist for reporting the bibliometric reviews of the biomedical literature (Montazeri et al., 2023).

2.2. Database and search strategy

Scopus, published by Elsevier, and Web of Science, published by Clarivate Analytics, are the two most widely used databases for retrieving bibliometric data in literature searches (Altarturi et al., 2023). Scopus is the largest abstract and citation database for peer-reviewed literature, providing a global perspective of research in various sectors such as science, technology, medical, social sciences, and arts and humanities (Koukopoulos & Neimeyer, 2024). The database includes more than 20,000 peer-reviewed articles, including publications from Elsevier, Emerald, Informa, Taylor & Francis, Springer, and Interscience (Altarturi et al., 2023). To provide a complete view of the developing field of bereavement among children and adolescents, we selected Scopus as the database for bibliometric analysis. The search of the database was performed on June 13, 2024.

The search technique was designed based on the primary concepts of “child”, “adolescent”, and “bereavement”. Following the completion of a preliminary search, we implemented a search strategy that involved a combination of keywords and Boolean operators as follows: grief* OR grieving OR mourn* OR bereave* OR sorrow* AND child* OR pediatric* OR paediatric* OR adolescen* OR teen* OR schoolage* OR preschool* OR pre-school* OR preschooler* OR toodler* OR infant* OR baby OR babies. Publication dates were not restricted, and the sources were limited to English literature. We did not impose restrictions on the articles according to their research methodologies. In addition to our objective of comprehending overarching topic trends on childhood grief and bereavement, implementing this in bibliometric analysis would be

Phase	Description
Searching	grief* OR grieving OR mourn* OR bereave* OR sorrow* AND child* OR pediatric* OR paediatric* OR adolescen* OR teen* OR schoolage* OR preschool* OR pre-school* OR preschooler* OR toodler* OR infant* OR baby OR babies
Screening	Based on title & abstract following the criteria of Population (children), Concept (grief and bereavement), and Context (loss of human)
Findings	1. Summary information 2. Authors 3. Countries 4. Networks 5. Trend 6. Citation 7. Topics 8. Sources
Analyzing	Visualizations and interpretations

Fig. 1. Bibliometric phases.

challenging, given the screening process is confined to study titles. The Scopus results were exported as a comma-separated values (CSV) file.

2.3. Data collection

The first reviewer conducted the selection process based on the title & abstract following the criteria of population (children), concept (grief and bereavement), and context (loss of human). The second reviewer in the team validated the screening process, and any disagreement among the team members was discussed in the research meeting. After screening, the file was converted back with R Studio into the comma-separated values file for further analysis.

2.4. Data analysis

The data was analysed using R Base version 4.2.2 with R Studio version 4.2.2 (Posit, Massachusetts, USA) (Aria & Cuccurullo, 2017) and VOSviewer software version 1.6.19 (Centre for Science and Technology Studies, Netherlands) (van Eck & Waltman, 2010). The R language environment employed the open-source packages Bibliometrix and Biblioshiny. The Biblioshiny package is a shiny application that offers a web interface for the Bibliometrix package in order to acquire significant bibliometric indicators (Altarturi et al., 2023; Aria & Cuccurullo, 2017). These indicators include summary information, yearly scientific output, the authors with the highest productivity, journals with the most publications, the most often referenced documents, analysis of keywords, the conceptual framework, and analysis of trends in themes. This package is commonly employed in a wide range of scientific disciplines for bibliometric analysis. The VOSviewer software was used to analyse and display the bibliometric mapping (van Eck & Waltman, 2010).

3. Results

3.1. General information

A search was conducted in the Scopus database, yielding a total of 9,640 articles. The screening procedure encompassed the framework of population, concept, and context. Furthermore, 1,262 items were removed due to their publication in a non-English language. Ultimately, 1,436 articles were obtained through screening and subsequently incorporated into the bibliometric study. Despite our efforts to include all terms related to children, such as infants, babies, and toddlers, we were unable to find any articles specifically addressing grief in these populations. The lack of grief and bereavement studies involving infants, babies, and toddlers underscores the difficulties in researching grief among these specific demographics.

The first result from the Biblioshiny is the summary information that provides essential statistics about the analysed literature dataset. In order to fully understand the literature on children and adolescent bereavement, it is crucial to take an inclusive perspective on the subject. The retrieved literature was published between 1960 and 2024 from 539 different journals and authored by 3,132 authors, with 12.3 % of them being single authors. The 1,436 articles included almost 38 thousand references. Table 1 also displays the average number of citations per document, which was 23.87 %. Articles comprise over 90 % of the literature, while conferences comprise approximately 0.9 %. In total, there are 118 review articles and eight short surveys. The literature in the field of children and adolescent's bereavement is of high scholarly value, as evidenced by the substantial discrepancy between the count of articles and the count of other literature categories.

3.2. Pattern of publication

This section examines the yearly increase in the number of articles and citations in the dataset. Fig. 2 depicts the annual progression of publications regarding bereavement among children and adolescents.

Table 1
Summary information.

Item	Results
Main information	
Timespan	1960–2024
Sources (Journals, Books, etc) (n)	539
Documents (n)	1,436
Annual Growth Rate (%)	6.49
Document average age (mean)	18.5
Average citation per document (mean)	23.87
References (n)	38,586
Authors	
Authors	3,132
Authors of single-authored docs	386
International co-authorship (%)	11
Co-author per document	3.06
Content	
Keywords Plus	2,767
Author's Keywords	1,622
Document types	
Article	1,297
Conference paper	13
Review	118
Short survey	8

The trend of bereavement studies among children and adolescents is on the rise, as evidenced by the annual growth rate of 6.49 % (Table 1). The field experienced a decline in publications in 1997, 2009, and 2016, but the overall trend indicates a consistent upward trajectory (Fig. 2(A)). The substantial growth began during the period from 1977 to 1979. The year with the highest number of publications was 2019, with 70 articles. The year with the fewest annual citations was 1960 when the publication on this subject was first documented, with a count of 0.77 (Fig. 2(B)). The highest point of citation occurred in the year 2000, with an average of 3.88 citations. When the average of publications related to bereavement among children and adolescents was 22.1 per year, the impact of the articles was 1.2 citations per year.

Additionally, this section evaluates the productivity of each country. The analysis delegates each document to the country of its corresponding author, assigning a single document to a single country. By assigning articles to a particular country, we can calculate the metrics of both single-country publications (SCP) and multiple-country publications (MCP) (Altarturi et al., 2023). The multiple-country publications ratio was determined by dividing the MCP by the total number of published papers per country. Utilizing the MCP ratio using these metrics offers a more thorough understanding of the collaboration ratios among the countries.

The United States is the most productive country regarding the number of corresponding authors in 359 articles, as indicated by the analysis. The most productive countries are further presented in Table 2, which also places the United Kingdom (95 articles) and Sweden (56 articles) among the top three countries with the maximum number of productive articles on this particular topic. Among the top 10 countries, Denmark, Sweden, and France have the highest MCP ratio, with 61.9, 37.5, and 21.4, respectively.

3.3. Authors and sources

Several measures are used to quantify writers' scientific output and influence, including the number of articles published, the number of citations received, the h-index, the g-index, and the degree of article fractionalization. Even though some experts argue that the number of publications does not reflect an author's influence on a particular field, we found that Kaplow was the most productive author on this topic, having published 28 articles. Following closely behind are Kreibergs with 25 articles, Dyregrov and Layne with 22 articles each, and Brent with 21 articles. Additionally, every article authored or co-authored by an individual receives a score for each item of literature it cites. The

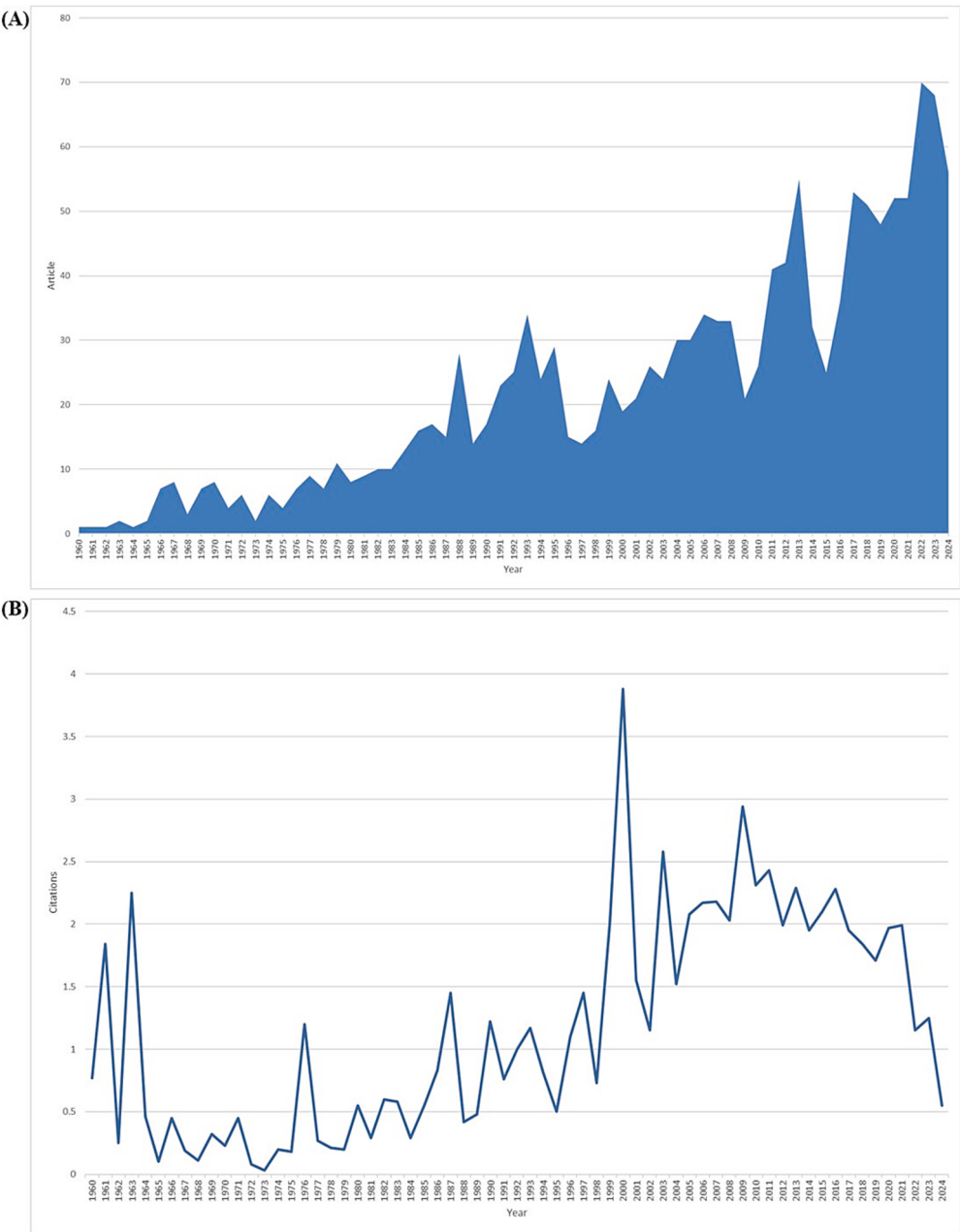


Fig. 2. (A) Annual publications. (B) Average citations.

Table 2
Corresponding authors by country.

Country	NP	SCP	MCP	MCP ratio
USA	359	322	37	10.3
United Kingdom	95	82	13	13.7
Sweden	56	35	21	37.5
Australia	42	37	5	11.9
Norway	25	20	5	20.0
Canada	22	19	3	13.6
Netherlands	22	19	3	13.6
Denmark	21	8	13	61.9
Israel	17	16	1	5.9
France	14	11	3	21.4

Abbreviations: NP: Number of Publication, SCP: Single Country Publications, MCP: Multiple Country Publications, USA: United States of America.

process of fractionalization in articles distributes the contributions of co-authors. Each author or co-author of an article is assigned a score equal to the reciprocal of the total number of authors. Dyregrov has the highest article fractionalization score of 6.5, while Kaplow follows closely with a score of 6.21.

This section also evaluates the citation metric, the aggregate number of citations a document has received since its publication. Out of all the authors, the articles authored by Wolfe, Lehman, Monroe, Nader, and Cluver were the most highly cited globally. Each of these publications garnered over 300 citations. The ten most frequently cited documents on a global scale were written and published before 2010. This data may suggest a change in subjects' priority within the field of childhood bereavement. The article authored by [Wolfe et al. \(2000\)](#), which was published in 2000, has acquired nearly a thousand citations ([Fig. 3\(A\)](#)). The articles related to bereavement among children and adolescents are primarily published in the journal of Death Studies. More than 100 articles were published in Death Studies, followed by the journals of

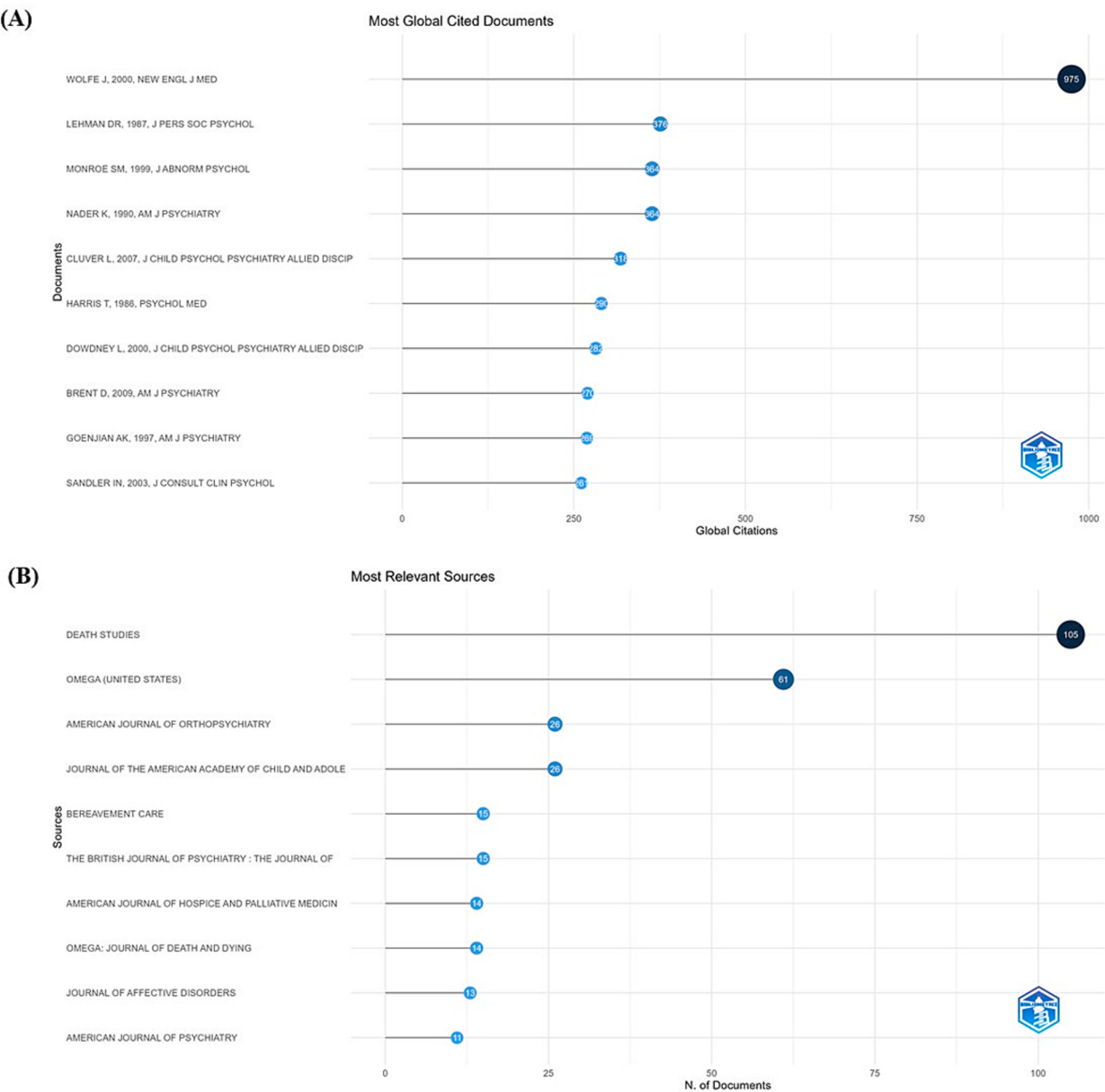


Fig. 3. (A) The most cited documents. (B) The most relevant sources.

Omega, the American Journal of Orthopsychiatry, and the Journal of the American Academy of Child and Adolescent (Fig. 3(B)).

3.4. Subject area

The topics addressed in the publications are particularly pertinent for investigation, as the objective of this bibliometric study was to ascertain the publication trend on childhood bereavement. Therefore, it is essential to analyze the content of the literature items based on the author’s keywords and abstracts. Examining these abstracts provides valuable insights into research trends and identifies gaps in the area of childhood bereavement. It is imperative to comprehensively comprehend the trend subjects to assess the feasibility of conducting future studies in this field. Because the majority of globally referenced documents were composed before 2010, they may indicate the subjects that have been altered in this field. In light of this, we conducted a detailed examination of the themes starting in 2010.

The most current topics identified from this analysis were related to the COVID-19 pandemic, presented in 23 documents in the period of

2019–2023 (Fig. 4). The most pertinent discussions connected to childhood grief revolved around subjects such as parental death (144 documents), mental health (119), and coping behaviour (118 documents). In the interim, the most frequently used keywords for bereavement and grief were bereavement (1,151) and grief (1,102). The documents contained additional keywords that were less frequently used, including bereaved, sorrow, and mourning. Toddler, infant, and baby were also included in the search strategies; however, their absence from the search results suggests that fewer studies specifically addressed these terms. Insight into the selection of keywords for future research may be gained from these findings. Additional research will be necessary in the categories of psychological adjustment, bereavement support, cognitive behavioural therapy, anxiety disorder, and child abuse, as the number of articles related to these topics was less than 30.

The bibliographic coupling is demonstrated using VOSviewer. Bibliographic coupling establishes connections between documents, sources, authors, organizations, and countries. Bibliographic coupling happens when two separate works refer to a typical third work in their respective bibliographies (Kleminski et al., 2020). The strength of the

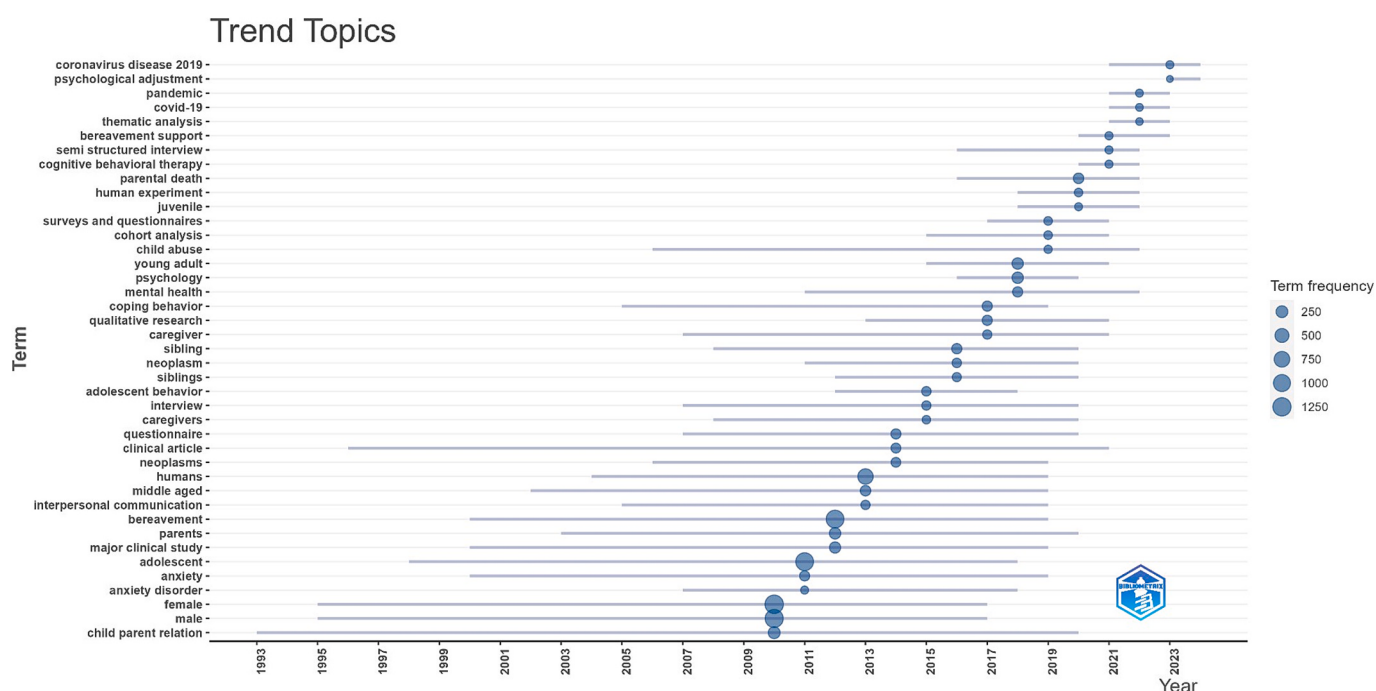


Fig. 4. Trend topics.

coupling increases as the number of shared works increases (Moral-Munoz et al., 2019). A network node represents a specific entity, such as a journal, author, country, institution, keyword, or article (Donthu et al., 2021). Fig. 6 utilized keyword entities to illustrate the network and exhibit the co-occurrence analysis of all keywords inside the childhood bereavement domain.

The minimum requirement for inclusion was set at 20 occurrences per keyword, and 178 keywords met this criterion. The co-occurrence network of keywords is shown in Fig. 5, in which larger nodes indicate more co-occurrence links with other terms in the whole network and the links connecting nodes of different. The research reveals the presence of six distinct clusters, with the most commonly occurring terms being child, adolescent, bereavement, and grief. The topics that were utilized most frequently include death, psychological adaptability, depression, and psychology. From the six distinct clusters, we categorized the keywords used into groups of themes. Six groupings of themes emerged from our subsequent categorization of the subjects extracted from the abstract: causes of bereavement, loss of human, associated symptoms, bereavement interventions, related factors, and psychological aspects.

Future research on the aspects that have been studied and additional notions that require more study will be guided by Fig. 6. Diseases, abuse, divorce, life-changing events, disasters, homicides, and trauma are among the causes. The associated symptoms, which include grief, anxiety, anger, fear, and depression, are mainly psychological in nature. In this bibliometric analysis, the therapies under investigation are cognitive therapy, counselling, psychotherapy, self-help, support, art therapy, family therapy, and peer groups. Bereavement support has been established for bereavement disorders in the adult population (Kustanti et al., 2021). Meanwhile, several variables have been linked to bereavement in children and adolescents, including religion, education, and health services. Child psychology themes include behaviour, attitude, and self-concept, among others.

4. Discussion

Grief and bereavement are essential human experiences that occur in response to the death of a significant other, involving a complex

interplay of affective, cognitive, behavioural, and physiological reactions. Grief refers to the acute emotional and psychological response to loss, whereas bereavement denotes the broader psychosocial process of adjusting to life without the deceased. Symptoms of grief include profound sadness, anger, guilt, yearning, cognitive disorientation, and behavioural withdrawal, often accompanied by somatic symptoms such as sleep disturbances, appetite changes, fatigue, and physical complaints. Bereavement can increase the risk of adverse health outcomes, including immune dysfunction, cardiovascular disease, and elevated mortality, particularly among vulnerable individuals (Glorioso et al., 2020). In paediatric populations, grief responses differ significantly from those of adults due to developmental, cognitive, and emotional differences. Children and adolescents often exhibit non-linear and fluctuating grief patterns, including periods of intense emotional expression alternating with apparent emotional numbness, regression, or avoidance. Their grief responses are shaped by factors such as age, developmental stage, understanding of death, attachment relationships, cultural beliefs, and environmental contexts (Kentor & Kaplow, 2020). Longitudinal studies have demonstrated heterogeneous trajectories of grief in children and adolescents, including resilient, recovery, and chronic or prolonged grief pathways. Some children may experience prolonged or maladaptive grief, characterized by enduring emotional pain, intense longing, and functional impairment, often associated with a heightened risk for internalizing disorders (Kentor & Kaplow, 2020; Melhem et al., 2011). Despite the developmental importance and potential long-term consequences of childhood grief, empirical research on grief and bereavement in children remains relatively limited compared to adult populations. Most existing studies have focused on adults or caregivers, while paediatric grief has received insufficient scholarly attention. This bibliometric analysis allows for the visualization of research trends, highlights influential contributions, and uncovers thematic gaps to inform future investigations and guide clinical and policy-oriented efforts in paediatric bereavement care.

We analyzed the papers that were included in the Scopus database. The yearly growth rate of 6.49 % suggests a rising interest among researchers in the study of bereavement among children and adolescents, suggesting a growing trend in this field over time. The co-authorship ratio per document is 3.06, indicating that the researchers may have

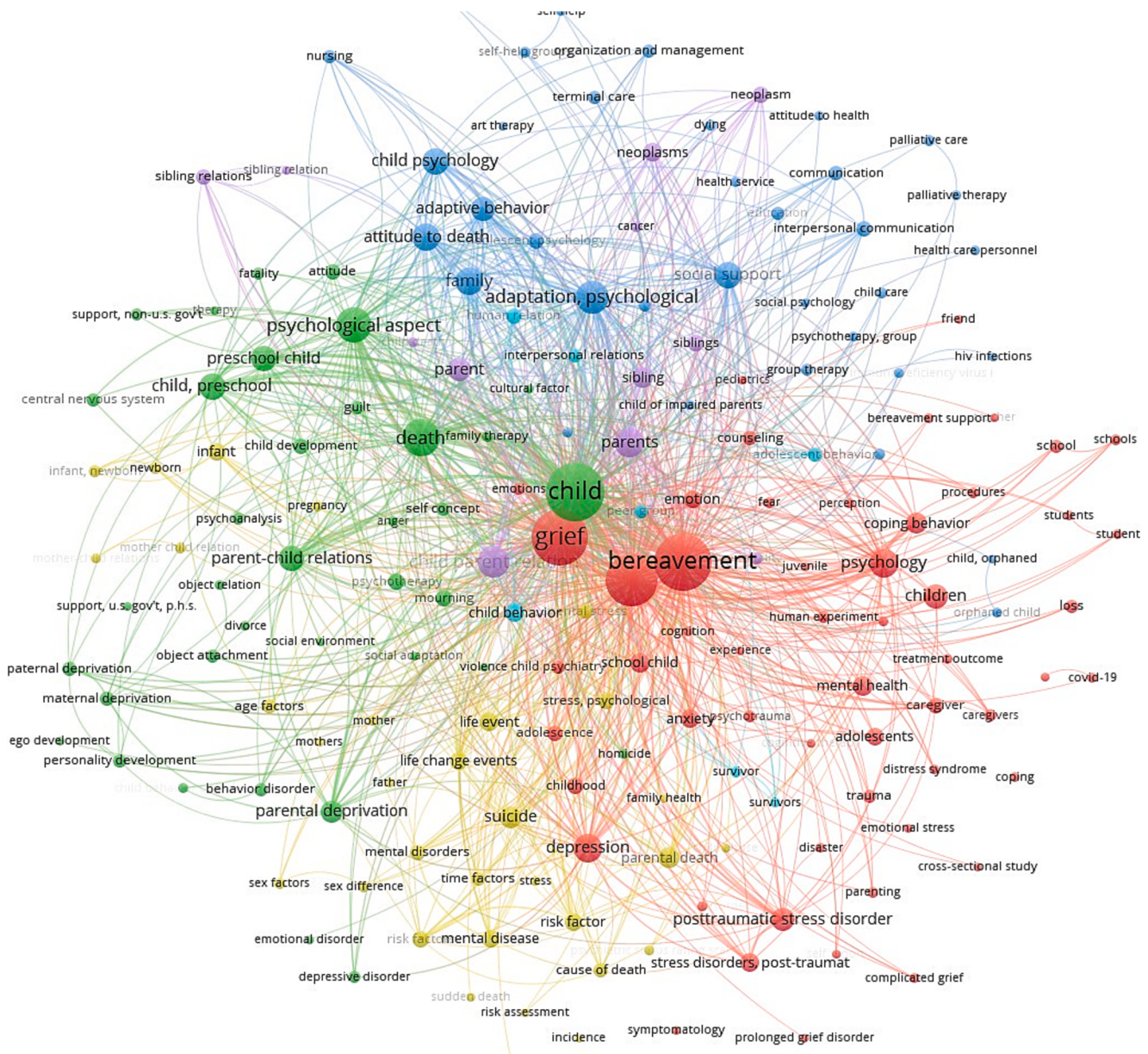


Fig. 5. Co-occurrence network.

either written a significant number of distinct publications or simply appeared to do so by collaborating with others without actually increasing their total production rate. The primary contributors to research on children and adolescents' experience of loss and grief are the United States, the United Kingdom, and Sweden. Subsequently, notable publications on this topic also originate from Australia, Norway, Canada, and the Netherlands. This bibliometric analysis reveals that the United States has a position of dominance among all countries that have contributed to literature in the dataset. Most of the metrics have a significant disparity between the United States and other countries. Institutions have contributed significantly to approximately 2,000 papers in the United States since 1960. The Arizona State University is the most frequently cited connection among these articles, appearing in 139 articles. In addition to articles from America, Europe, and Australia, the analysis also included publications from Israel, South Africa, China, Iran, Japan, India, and Korea. Recent evidence indicates that childhood bereavement has garnered significant attention on a global scale. Future research across Africa and Asia is crucial as the children and adolescents in each culture may exhibit distinct responses to loss and bereavement.

A more profound comprehension of loss and grief in children and adolescents will lead to the development of more appropriate support systems for this particular population (Kustanti et al., 2021).

The journal of Death Studies has been identified as having the highest number of published articles specifically focused on the topic of grieving among children and adolescents. Li et al. (2023) conducted bibliometric studies on grief interventions and found that Death Studies were also included. This journal was included in two other bibliometric studies as one of the top ten journals in the scope of grief and bereavement. Death Studies is a prominent journal in the field of grief and loss, grief treatment, death attitudes, suicide, and death education. Death Studies' commitment to publishing ten times a year may explain its high productivity in providing material on the aforementioned issues. Additional journals that regularly publish articles in this field include Omega, the American Journal of Orthopsychiatry, the Journal of the American Academy of Child and Adolescent Psychiatry, and Bereavement Care. The British Journal of Psychiatry and the American Journal of Hospice and Palliative Medicine also discuss the specific topic examined in this study. Furthermore, notable publications in this field

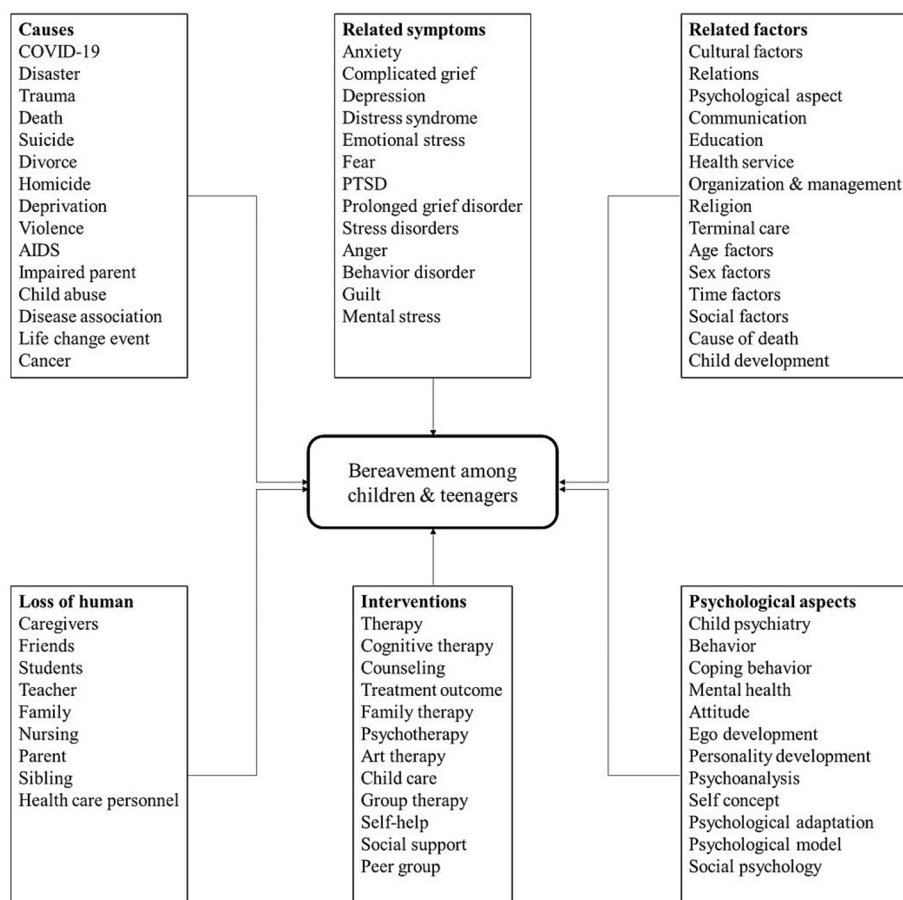


Fig. 6. Themes.

include the Omega (Journal of Death and Dying) and the Journal of Affective Disorders, which provide articles pertaining to the subject matter under investigation. Notably, each of the other publications considered in the analysis published an article.

Wolfe, Lehman, Monroe, Nader, and Cluver are considered the foremost authors in childhood bereavement. Wolfe's paper pertains to the symptoms and distress experienced by children with cancer towards the end of their lives. While not directly associated with bereavement, the presence of fear, sadness, and a decline in well-being may be indicative of anticipatory grieving symptoms. Holly Prigerson in the USA and Paul Boelen in the Netherlands have been recognised as the leading authors or researchers in prolonged grief disorder (Koukopoulos & Neimeyer, 2024). The authors identified the bibliometric study conducted by Koukopoulos and Neimeyer (2024) only included Boelen in this bibliometric study, which implies that others may have focused more on the generic concept of grief and bereavement or adult bereavement. In contrast, Boelen shared some articles related to grief and bereavement among children or adolescents. Interestingly, the ten most globally cited documents were authored and published before 2010. This data may indicate the shift in priority subjects within childhood bereavement. For this reason, categorising the topics will lead researchers in children's and adolescents' bereavement to map their future studies.

Keywords are the fundamental elements of an article. Keyword analysis enables the condensation of study subjects in a particular domain and the investigation of the prevailing patterns and cutting-edge research areas (Ma et al., 2021). The bibliometric analysis demonstrates that the field of bereavement among children and adolescents study focuses extensively on subjects such as child, adolescent, bereavement, and grief, as shown from the keyword co-occurrence density map. The

initial year of publication regarding bereavement among children and adolescents primarily focused on psychoanalytic interpretation and personality. The topics shifted to encompass a broader range of themes, including the investigation of the causes of loss and its connection to the experience of bereavement, a wider research of outcomes beyond grieving, encompassing additional psychological consequences following a loss, as well as the examination of different interventions. The subsequent categorization of the subjects derived from the analysis resulted in six groupings of themes. These themes include causes of bereavement, loss of human, associated symptoms, bereavement interventions, related factors, and psychological elements.

4.1. Strengths and limitations

Although the majority of literature and bibliometric studies have concentrated on the overarching concept of grief and bereavement, this is the first attempt to investigate the publication trend in bereavement among children and adolescents. We also utilized the Scopus database, which is renowned for its ability to retrieve most articles in this discipline. Nevertheless, numerous additional articles may be published in other databases. In future research, this bias could be eliminated by combining multiple databases, including Scopus, PubMed, Web of Science, and Google Scholar. Additionally, we restricted the articles published in English, which may have resulted in the exclusion of pertinent studies published in other languages or databases. Moreover, we employed the search term that included children. Nonetheless, children were not exclusively those under the age of 18. This phenomenon was similarly observed in sibling relationships, among students, and within young persons. These terminologies may intensify bias in the screening process, despite our efforts to mitigate this by incorporating two

reviewers.

5. Conclusion

In summary, our bibliometric analysis indicates that the academic community has paid global attention to the consistent growth of research on bereavement among children and adolescents. Most bereavement research among children and adolescents is conducted in the United States, which is the leading country in this field. Kaplow JB is the most prolific author in this discipline, and Arizona State University has made the most significant academic contributions. Most of the articles were published in *Death Studies*. Wolfe J's 2000 paper on the end-of-life experiences of children is the most frequently cited article on this subject, and it may serve as an indicator of anticipatory grief. The majority of research has concentrated on the causes of bereavement, the loss of a human life, the symptoms that are associated with it, bereavement interventions, related factors, and psychological aspects. The themes' gaps will provide researchers with additional insights to guide future research in this discipline.

This bibliometric analysis offers significant insights into the research domain of grief and bereavement among children and adolescents, emphasizing its ramifications for paediatric healthcare. The results highlight the necessity of incorporating loss and grief education into healthcare training, resolving research deficiencies to provide targeted interventions, and promoting interdisciplinary collaboration among healthcare professionals, educators, and families. Applying these findings can improve bereavement support for children, guaranteeing they have thorough emotional and psychological attention.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.childyouth.2025.108324>.

Data availability

No data was used for the research described in the article.

References

- Altarturi, H. H. M., Nor, A. R. M., Jaafar, N. I., & Anuar, N. B. (2023). A bibliometric and content analysis of technological advancement applications in agricultural e-commerce. *Electronic Commerce Research*. <https://doi.org/10.1007/s10660-023-09670-z>
- Altarturi, H. H. M., Saadoon, M., & Anuar, N. B. (2020). Cyber parental control: A bibliometric study. *Children and Youth Services Review*, 116, Article 105134. <https://doi.org/10.1016/j.childyouth.2020.105134>
- Alvis, L., Zhang, N., Sandler, I. N., & Kaplow, J. B. (2023). Developmental Manifestations of Grief in Children and Adolescents: Caregivers as Key Grief Facilitators. *J Child Adolesc Trauma*, 16(2), 447–457. <https://doi.org/10.1007/s40653-021-00435-0>
- 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>
- Cooley, M. E. (1992). Bereavement care. A role for nurses. *Cancer Nurs*, 15(2), 125–129. Doi: PMID: 1617618.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- Fernandes, M. A., Costa, S. F. G. d., Morais, G. S. d. N., Duarte, M. C. S., Zaccara, A. A. L., & Batista, P. S. d. S. (2016). Palliative care and grief: a bibliometric study. *Escola Anna Nery*, 20, e20160102. Doi: 10.5935/1414-8145.20160102.
- Glorioso, D. K., Iglewicz, A., & Zisook, S. (2020). Chapter 18 - Bereavement and grief. In N. Hantke, A. Etkin, & R. O'Hara (Eds.), *Handbook of Mental Health and Aging* (Third Edition, pp. 245–256). Academic Press. <https://doi.org/10.1016/B978-0-12-800136-3.00018-1>.
- Kaplow, J. B., Layne, C. M., Oosterhoff, B., Goldenthal, H., Howell, K. H., Wamser-Nanney, R., Burnside, A., Calhoun, K., Marbury, D., Johnson-Hughes, L., Kriesel, M., Staine, M. B., Mankin, M., Porter-Howard, L., & Pynoos, R. (2018). Validation of the Persistent Complex Bereavement Disorder (PCBD) Checklist: A Developmentally Informed Assessment Tool for Bereaved Youth. *J Trauma Stress*, 31(2), 244–254. <https://doi.org/10.1002/jts.22277>
- Kentor, R. A., & Kaplow, J. B. (2020). Supporting children and adolescents following parental bereavement: Guidance for healthcare professionals. *The Lancet Child & Adolescent Health*, 4(12), 889–898. [https://doi.org/10.1016/S2352-4642\(20\)30184-X](https://doi.org/10.1016/S2352-4642(20)30184-X)
- Kleminski, R., Kazienko, P., & Kajdanowicz, T. (2020). Analysis of direct citation, co-citation and bibliographic coupling in scientific topic identification. *Journal of Information Science*, 48(3), 349–373. <https://doi.org/10.1177/0165551520962775>
- Koukopoulos, A., & Neimeyer, R. A. (2024). Prolonged grief disorder: A bibliometric analysis. *Death Stud*, 48(2), 150–163. <https://doi.org/10.1080/07481187.2023.2196734>
- Kustanti, C. Y., Chu, H., Kang, X. L., Pien, L. C., Chen, R., Tsai, H. T., & Chou, K. R. (2022). Anticipatory grief prevalence among caregivers of persons with a life-threatening illness: A meta-analysis. *BMJ Support Palliat Care*. <https://doi.org/10.1136/bmjspcare-2021-003338>
- Kustanti, C. Y., Effendy, C., Fauk, N. K., Haryanti, P., Arifin, H., Isnanto, I., Yunitri, N., Maawati, F., Adi Wibawa, Y., Octary, T., & Ikaningtyas, N. (2024). A scoping review of theories and models applied for grief and bereavement projects. *Death Stud*, 1–10. <https://doi.org/10.1080/07481187.2024.2370460>
- Kustanti, C. Y., Fang, H. F., Linda Kang, X., Chiou, J. F., Wu, S. C., Yunitri, N., Chu, H., & Chou, K. R. (2021). The Effectiveness of Bereavement Support for Adult Family Caregivers in Palliative Care: A Meta-Analysis of Randomized Controlled Trials. *JOURNAL OF NURSING SCHOLARSHIP*, 53(2), 208–217. <https://doi.org/10.1111/jnu.12630>
- Li, J., Li, Y., Wang, Y., Jishi, W., & Fang, J. (2023). What we know about grief intervention: A bibliometric analysis. *Front Psychiatry*, 14, Article 1152660. <https://doi.org/10.3389/fpsy.2023.1152660>
- Lichtenthal, W. G., Roberts, K. E., Donovan, L. A., Breen, L. J., Aoun, S. M., Connor, S. R., & Rosa, W. E. (2024). Investing in bereavement care as a public health priority. *The Lancet Public Health*, 9(4), e270–e274. [https://doi.org/10.1016/S2468-2667\(24\)00030-6](https://doi.org/10.1016/S2468-2667(24)00030-6)
- Lundorff, M., Holmgren, H., Zachariae, R., Farver-Vestergaard, L., & O'Connor, M. (2017). Prevalence of prolonged grief disorder in adult bereavement: A systematic review and meta-analysis. *J Affect Disord*, 212, 138–149. <https://doi.org/10.1016/j.jad.2017.01.030>
- Ma, D., Yang, B., Guan, B., Song, L., Liu, Q., Fan, Y., Zhao, L., Wang, T., Zhang, Z., Gao, Z., Li, S., & Xu, H. (2021). A Bibliometric Analysis of Pyroptosis From 2001 to 2021. *Front Immunol*, 12, Article 731933. <https://doi.org/10.3389/fimmu.2021.731933>
- McNiel, A., & Gabbay, P. (2017). *Understanding Childhood Grief and the Bereavement Support Professional's Role*. In (pp. 1–12). Springer Publishing Company.
- Mejia, C., Wu, M., Zhang, Y., & Kajikawa, Y. (2021). Exploring Topics in Bibliometric Research Through Citation Networks and Semantic Analysis [Review]. *Frontiers in Research Metrics and Analytics*, 6. <https://www.frontiersin.org/journals/research-h-metrics-and-analytics/articles/10.3389/frma.2021.742311>.
- Melhem, N. M., Porta, G., Shamseddeen, W., Walker Payne, M., & Brent, D. A. (2011). Grief in children and adolescents bereaved by sudden parental death. *Arch Gen Psychiatry*, 68(9), 911–919. <https://doi.org/10.1001/archgenpsychiatry.2011.101>
- Montazeri, A., Mohammadi, S., P, M. H., Ghaemi, M., Riaz, H., & Sheikh-Mobarakeh, Z. (2023). Preliminary guideline for reporting bibliometric reviews of the biomedical literature (BIBLIO): a minimum requirements. *Syst Rev*, 12(1), 239. Doi: 10.1186/s13643-023-02410-2.
- Moral-Munoz, J. A., López-Herrera, A. G., Herrera-Viedma, E., & Cobo, M. J. (2019). Science Mapping Analysis Software Tools: A Review. In W. Glänzel, H. F. Moed, U. Schmoch, & M. Thelwall (Eds.), *Springer Handbook of Science and Technology Indicators* (pp. 159–185). Springer International Publishing. Doi: 10.1007/978-3-030-02511-3_7.
- Osterweis, M., Solomon, F., & Green, M. (1984a). *Bereavement during childhood and adolescence. In Bereavement: Reactions, consequences, and care*. National Academies Press (US).
- Osterweis, M., Solomon, F., & Green, M. (1984b). *Bereavement: Reactions, consequences, and care*. National Academies Press. <https://doi.org/10.17226/8>
- Pitman, A., Stevenson, F., King, M., & Osborn, D. (2020). Self-Reported Patterns of Use of Alcohol and Drugs After Suicide Bereavement and Other Sudden Losses: A Mixed Methods Study of 1,854 Young Bereaved Adults in the UK [Original Research].

- FRONTIERS IN PSYCHOLOGY, 11. <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2020.01024>.
- Revet, A., Bui, E., Benvegna, G., Suc, A., Mesquida, L., & Raynaud, J. P. (2020). Bereavement and reactions of grief among children and adolescents: Present data and perspectives. *L'Encéphale*, 46(5), 356–363. <https://doi.org/10.1016/j.encep.2020.05.007>
- Robin, L., & Omar, H. A. (2014). *Adolescent bereavement. In School, adolescence and health issues* (pp. 97–108). Nova Biomedical Books.
- Sánchez-Sánchez, A. M., Ruiz-Muñoz, D., & Sánchez-Sánchez, F. J. (2024). Research trends in the bias-based aggression among youth. *Children and Youth Services Review*, 158, Article 107444. <https://doi.org/10.1016/j.childyouth.2024.107444>
- van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- Wolfe, J., Grier Holcombe, E., Klar, N., Levin Sarah, B., Ellenbogen Jeffrey, M., Salem-Schatz, S., Emanuel Ezekiel, J., & Weeks Jane, C. (2000). Symptoms and Suffering at the End of Life in Children with Cancer. *New England Journal of Medicine*, 342(5), 326–333. <https://doi.org/10.1056/NEJM200002033420506>