A Thorough Bibliometric Analysis of School Bullying Research Indexed in Scopus: Identifying Trends and Future Directions (1987-2023)

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Abstract

This study aims to map targeted bullying research using publications indexed in the Scopus database from 1987 to 2023. The starting year is 1987, based on findings from his Scopus database that this is the year in which the first publications about victims of bullying were found. This study uses bibliographic analysis method. Data were obtained by searching the Scopus database from 1987 to 2023 using a Boolean search engine. The search was carried out on August 5 at 11.15 WIB. Researchers used R and Rstudio, VosViewer and Microsoft Excel tools to analyze citations, document content and networks.

The bibliometric analysis carried out was limited to Scopus data. Other national and international databases should have been considered in this study. This study presents a brief overview of the literature that is accessible to researchers working in both education and psychology and provides recommendations for future research.

Keywords: Bullying, Crime victim, victimization, Psychology, Interpersonal relations

Introduction Section

Bullying is a well-known word in the world (Bauman, 2008). Bullying is using power to hurt someone or a group of people verbally (I.Borulogo, 2023), physically (M.O'Hara, 2020) or psychologically, making the victim feel depressed (Smith, 2018), traumatized , and helpless (Borualogo & Casas, 2023). Perpetrators of bullying are often called bullies (Puhl, 2011). Bullying often occurs in schools and is carried out by teenagers (Obeïd et al., 2022). Bullying in the school environment has become a global problem (Shahrour et al., 2020). Bullying cases receive less attention because they are considered normal (Zhao, 2023). Bullying seems to be a tradition that occurs routinely, giving rise to a pattern of continuing to bully. Bullying at school often provides negative feedback for students (Chen et al., 2021).

The impact of this measure is far-reaching. (Rezapour, 2022). Teens who are victims of bullying are at increased risk of experiencing a variety of health problems, both physically and mentally (Khosrow-Pour, 2020). Some of the problems that children who are victims of bullying are more likely to suffer from include the development of various psychological problems such as depression and anxiety (Provenzano, 2021) and sleep problems (Kaynak, 2021), It can continue into adulthood. Physical discomfort such as headaches, abdominal pain, muscle tension, and anxiety (Malamut et al., 2021). Motivation to learn and academic ability decrease in the school environment (Garandeau et al., 2018).

Bibliographic indicators serve as future indicators in the evaluation of scientific research results, the study of the interaction of science and technology, the creation of maps of scientific fields, the monitoring/tracking of new scientific developments in specific fields, and the formulation of strategic plans (Khurana et al., 2023). This study aims to map targeted bullying research using publications indexed in the Scopus database from 1987 to 2023. 1987 was chosen as the starting year based on findings in the Scopus database that the first publications on bullying victimization were found in that year. In educational psychology, it was revealed that this study was conducted to determine the tendency of bullying behavior in five personality types (Pertiwi, 2011). Research shows that two of the five big five personality types have a significant relationship with the tendency to bully behaviour, namely emotional stability and intellect.

Research shows trends in bullying behavior, focusing on anti-bullying efforts among high school students. This study shows that counseling is an attempt to reduce and prevent bullying in schools (Nur et al., 2020). From previous research on bullying victimization, bibliometric analysis research methods have yet to be used to map scientific publications.

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Research Methods

This inquires about employment bibliometric investigation strategies. Information was obtained employing a Boolean look motor to comb the Scopus database between 1987 and 2023. The look was carried out on August 5 at 11.15 WIB. Analysts utilized R and Rstudio, VosViewer, and Microsoft Exceed expectations apparatuses to analyze citations, record substance and systems. Analysts took three stages in preparing the dataset in this inquiry.

In the first stage, researchers will conduct a literature review on bullying victimization and ensure that relevant bibliographic studies are conducted. Additionally, a literature review can also help identify appropriate keywords to describe the scope of the study.

In the second phase, the researcher searches Scopus using the Boolean operator TITLE-ABS-KEY (Bullying and Victimization), yielding 6,381 documents. Then use the Boolean operator TITLE-ABS-KEY (Bullying AND Victimization) AND (LIMIT-TO (SUBJAREA, "PSYC")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (Subjarea, "PSYC"). TO (SRCTYPE, "j")) AND (LIMIT-TO (LANGUAGE, "English")) limits the article document type to only articles. The source documents are only journals and English articles, and the final document is his 3,323 documents..

In the third phase, we performed an analysis of the final retrieved documents using Scopus analyzer and R and Rstudio to determine the number of documents per year, number of documents by journal, author, affiliation, country, and subject/discipline. Additionally, we analyzed the document network layer through visualization using VOSviewer and Microsoft Excel data processing. This investigation procedure is illustrated in figure (1) below.
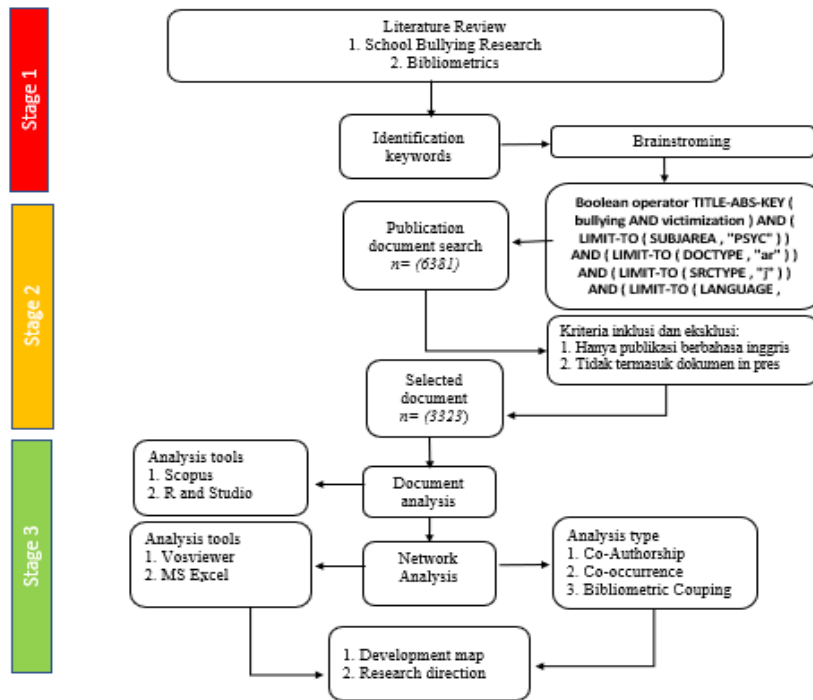

Figure 1. Research Steps

Results and Discussion

Document Information Analysis

Critical Information About Data (Retrieve from Bib-Shy)

Table 1 shows research documents covering the period from 1987 to 2023. There are 439 sources used in this research, including journals, books and other sources. There are 2126 documents covering various papers, reports, or other scientific works with different topics, methods, or objectives.

The annual growth rate of 14.43% indicates that the number of research documents in this data has increased significantly from 1987 to 2023. The references in this dataset total 87022; this shows the extent to which authors refer to other sources in their research documents. The dataset also has 1665 additional keywords (Plus) and 3227 author keywords (Author's). Were 4,839 authors involved in writing the documents in the dataset, indicating collaboration and contributions

from various authors. One hundred sixty-three documents are single documents written by one author without collaboration.

Table 1. Critical Information About Data (Retrieve from Bib-Shy)

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	1987:2023
Sources (Journals, Books, Etc)	439
Documents	2126
Annual Growth Rate %	14,43
Document Average Age	6,52
Average citations per doc	34,74
References	87022
DOCUMENT CONTENTS	
Keywords Plus (ID)	1665
Author's Keywords (DE)	3227
AUTHORS	
Authors	4839
Authors of single-authored docs	163
AUTHORS COLLABORATION	
Single-authored docs	200
Co-Authors per Doc	3,5
International co-authorships %	20,56
DOCUMENT TYPES	
Article	2126

Documents by year (retrieved from Scopus)

Figure 2 shows the development of publications on the theme of bullying victimization. Based on the graph, "bullying victimization" began appearing in 1987. In 2021, publications about "bullying victimization" have reached their peak in that year. This graph depicts the fluctuation pattern in research interest in "bullying victimization" from year to year. This research may depend on factors such as educational climate, government policy, or changes in societal needs that influence research interest and focus in a particular period.
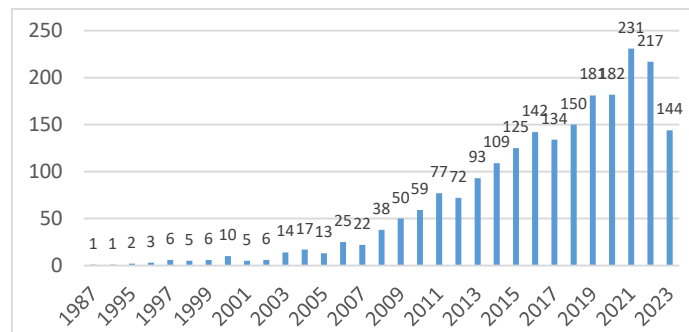

Figure 2. Documents by year

Most Relevant Author

Figure 3 shows the ten most influential authors in publications on Bullying Victimization. Espelage, D.L leads with the number of publications with 55 documents, followed by Jong, J.S with 43 documents, Salmivali, C with 31 documents, Veestra, R. with 21 documents and Wright, M.F with 20 documents.
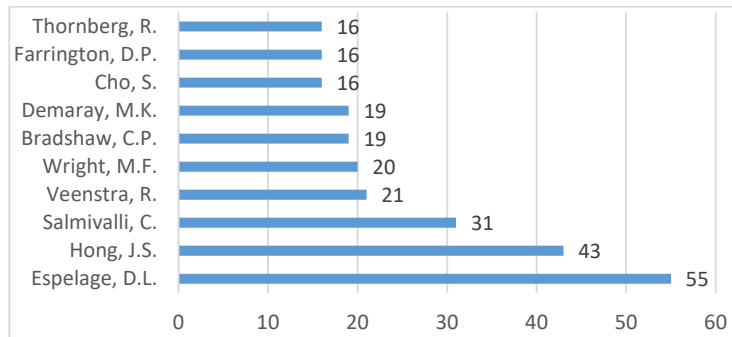
Figure 3. Most Relevant Author

Document by Affiliation

Figure 4 shows the ten most influential affiliates in publications about "bullying victimization". From this picture, we can see that Turun Yliopisto is leading with 93 documents. We were followed by Rjiks Universiteit Groningen and the University of Virginia with 64 documents each. The University of Illinois Urbana Champaign with 62 documents, followed by The University of North Carolina with 57 documents.
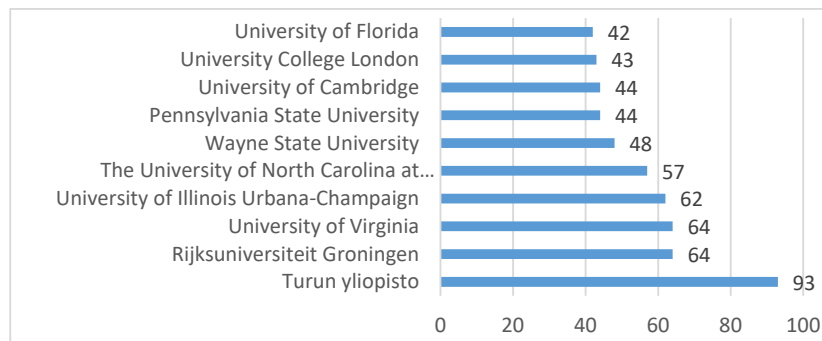

Figure 4. Document by Affiliation

Documents By Country

Figure 5 shows publication information by country with the theme "bullying victimization". From this Figure, it can be seen that the United States leads publications with a total of 1105 documents. The United Kingdom occupies the second position with 199 documents. The European continent dominates with four countries, while the American continent countries occupy the second dominant position. Shows that countries on the American continent popularly research the theme of bullying.
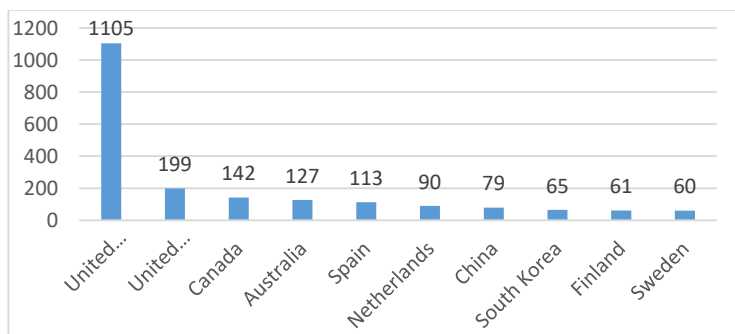

Figure 5. Documents By Country
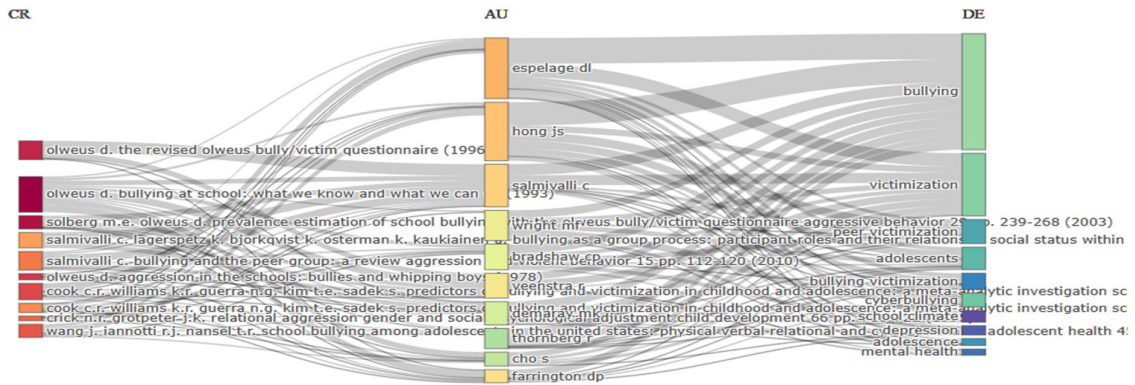
Tree-Field Plot

Figure 6. Tree-Field Plot

Figure 6 shows the relationship between the name of the publication, author, and keywords related to the research topic "Bullying Victimization". The size of the plot indicates how many publications relate to that theme. Based on the picture above, there are 20 journals. The journal that publishes the most research on the theme of bullying is the middle and secondary school education journal, which is displayed in dark red and is linked to several authors such as Espelage DL, Jong JS, Salmivali C, Veestra R, Wright Mf.

Based on the picture above, there are 20. The size of the bar chart shows how many research results were published by each author. Among the ten authors who wrote the most articles on bullying were Espelage DL, Jong JS, Salmivali C, Veestra R, and Wright Mf. In the third element, each research topic is connected to an author who has written extensively on bullying. From the analysis results, 20 keywords, Bullying, and Victimization are in the top position. Shows that the word is very closely related to research related to bullying.

Corresponding Author's Countries

The countries with the most significant Senior Corresponding Authors (SCP) are the USA, United Kingdom, Canada and Australia. Based on Figure 6, the USA has the most significant number of authors. The United Kingdom and Spain followed them.
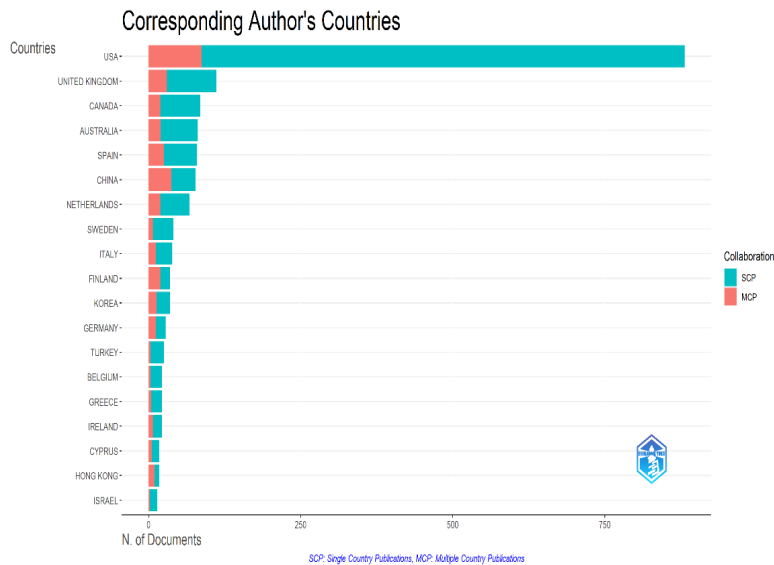

Figure 7. Corresponding Author's Countries

Most Global Cited Document

The paper with the most citations is occupied by Cook Cr, with the largest total of 1091 citations. Shows that this paper has significantly influenced the scientific literature, measured by the number of citations it has received. Paper Cook Cr also has the most significant T.C. year. Shows the high frequency of citations received each year, reflecting the sustainability and popularity of this paper over a certain period.

Table 2. Most Global Cited Document

Paper	Total Citations	T.C. per Year	Normalized TC
Cook Cr, 2010, Sch Psychol Q	1091	77,93	9,99
Hinduja S, 2008, Deviant Behav	878	54,88	8,57
Raskauskas J, 2007, Dev Psychol	663	39,00	4,04
Haynie Dl, 2001, J Early Adolesc	632	27,48	3,60
Li Q, 2006, Sch Psychol Int	609	33,83	7,19
Pellegrini Ad, 1999, J Educ Psychol	563	22,52	3,24
Birkett M, 2009, J Youth Adolesc	535	35,67	6,75
Veenstra R, 2005, Dev Psychol	473	24,89	3,28
Kärnä A, 2011, Child Dev	453	34,85	6,04
Nakamoto J, 2010, Soc Dev	437	31,21	4,00

Network Analysis
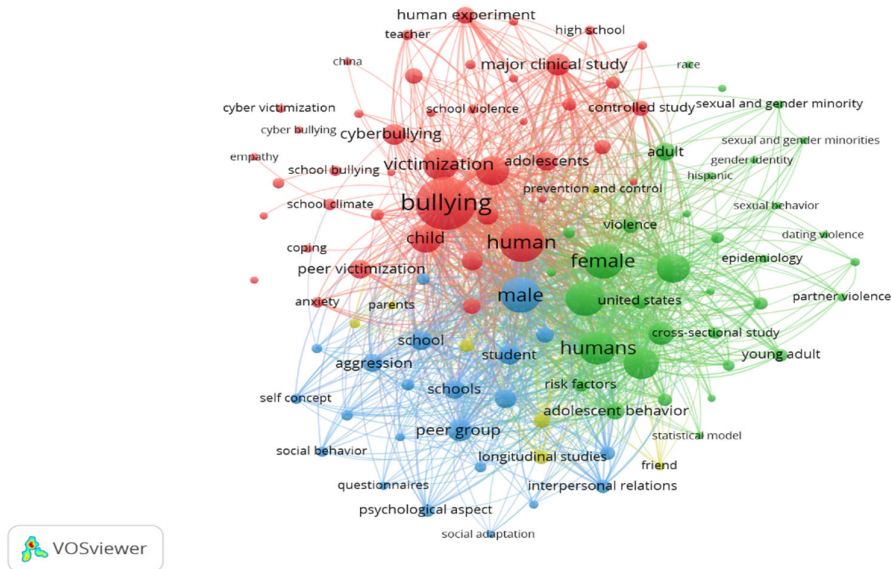
Figure 8. Network Analysis Occurance

The picture above is an occurrence analysis from research on bullying, with a cluster size of 30 and forming 4 clusters. Cluster one consists of 43 items. Cluster two consists of 34 items. Cluster three consists of 22 items. Cluster four consists of 7 items. The keyword that dominates is "bullying victimization" is the dominant keyword with a total link strength of 103595. This research shows that "Bullying victimization" is the main focus.

Figure 9. Network Analysis based on overlay

The image above shows keyword network analysis based on an overlay. It can be seen that the keywords clinical study, human experiment, high school, partner violence and sexual behaviour are the keywords used in the latest year. Meanwhile, human, male, cross, female, and risk factors are keywords with relatively long usage since 2016.

Figure 10. Research density analysis

Figure 10 shows a research density analysis describing keyword use frequency distribution patterns in the literature. From this image, it can be seen that several keywords such as "bullying, victimization", "human", and "child" have a high density, which shows that these keywords have been frequently researched. The keywords "interpersonal relations", "social adaptations", "social behavior", "self-concept", and "partner violence" have a lower frequency of occurrence, indicating that this topic may still be rarely researched and does not have a significant frequency.

Table 3. Network Analysis

	Keyword	occurrences	Cluster
1.	bullying victimization	182	1
2.	Academic achievement	111	
3.	adolescence	121	
4.	anxiety	82	
5.	child	79	
1.	Crime victim	188	2
2.	Cross-sectional studies	122	
3.	Healthy survey	119	
4.	Humans	108	
5.	Prevalence	94	
1.	Aggression	176	3
2.	Child relation	144	
3.	Human relation	101	
4.	Interpersonal relation	88	
5.	Peer group	67	
1.	Child parent relation	113	4
2.	Longitudinal studies	89	
3.	Parent	74	
4.	Prevention and Control	69	
5.	Social support	58	

Table 3 shows the occurrence in each cluster, representing the central research theme in the "Bullying Victimization" theme area. Several keywords such as "bullying victimization, crime victim, aggression and child-parent relations" have a significant level of density in their occurrence, thus indicating an intense research focus on research on these topics. On the other hand, the keywords "Prevalence, Social support, and Peer group" have a low frequency of appearance, so this shows that these topics are still rarely researched.

The following analysis provides insight into the research focus on "Bullying Victimization" in educational institutions. The keyword density level shows different levels of interest and research in the sub-topic. It can help researchers or practitioners to understand trends and research areas in depth to develop better understanding and practice.

Conclusion

Publications with the theme "Bullying Victimization" topped the list of publications in 2021 with 1105 documents. Meanwhile, the most relevant author on this theme is Espelage, D.L, with 55 documents. Most affiliates are down Yliopisto. The contributions of these authors provide many insights into research on "Bullying Victimization".

The USA contributes the most to the "Bullying Victimization" theme with 1105 documents. Countries on the European continent dominate the most publications. Indicates the leading role of these countries in producing quality research in this field. The document most cited globally is Cook Cr, 2010, Sch Psychol Q with 1091 citations. "bullying victimization" is the dominant keyword, with a link strength of 103,595. Shows that bullying victimization is the main focus of the literature analyzed. This research has limitations, including limited exploration of a dataset only indexed in Scopus.

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