

# Bibliometric Analysis: Parenting Program During the Worldwide Covid-19 Pandemic

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## Abstract

Childcare programmes have been the subject of extensive research. However, research mapping on parenting programmes during the Covid-19 pandemic is still very scarce. Therefore, the purpose of this bibliometric analysis is to compile an overview of childcare research during the Covid-19 pandemic. In this study, a total of 200 articles were collected from the Scopus database related to the theme "Parenting during Covid-19". The results of this study show that there are six clusters in the collected articles. The clusters cover various topics such as additions, articles, depressive symptoms, psychological stress, child abuse, rate of job loss, life during quarantine, as well as various aspects related to parenting during the pandemic. In addition, the second figure shows that these articles were mainly published in 2021. The third figure shows various terms related to parenting during the Covid-19 pandemic such as ADHD, loneliness, psychological stress, and job loss.

**Kata Kunci:** *bibliometric analysis; parenting; covid-19 pandemic*

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## Introduction

The COVID-19 pandemic is sweeping the globe. Recent developments indicate a significant downward trend. The latest data from the latest developments in Indonesia show that the downward trend of Covid has hit. In Indonesia, the most recent data was obtained on 13 February 2023 from the website showing positive Covid numbers of 6,732,618, recovered from Covid totaling 6,567,655, and data that died due to Covid number 160,860. <https://covid19.go.id/>.

The appearance of Covid-19 undoubtedly altered a variety of societal habits. The habit of acting in everyday life, or perhaps the habit of interacting in a social setting. People's patterns of interaction have shifted; previously face-to-face interactions have moved online. Cyberspace meetings have become a new habit in their activities. They range from office and school activities to economic activities that are becoming more digital.

Changes in family life are also significant. Coronavirus Disease 2019 (COVID-19) is causing havoc in families. According to the United Nations Educational, Scientific, and Cultural Organization, 1.38 billion children are not in school or child care and do not have access to activity groups, team sports, or playgrounds (Cluver et al., 2020) Parents and caregivers who want to work remotely or are unable to work because they are caring for children and do not know how long the situation will last. Many people are too busy to worry

about keeping their children safe at home. This is exacerbated for those who live in low-income households with a large number of family members (Cluver et al., 2020). Cluver et al. went on to say that this has serious consequences. Violence and increased vulnerability for children during school closures appear to be linked to health emergencies, according to evidence. During school closures, there has been an increase in reported child abuse. Parents and children are under increased stress as a result of media hype and fear. The economic impact of the crisis will increase parental stress, which will have an effect on violence against children.

In March 2020, its influence was also felt in North Cyprus. Children in North Cyprus were unable to attend school, and playgrounds and entertainment centers were closed, forcing them to spend the majority of the day at home (Koran et al., 2022). Spending a lot of time at home has an effect on children's media use. Children spend far too much time in front of screens, and use before bedtime in early childhood is linked to developmental delays, poor sleep quality, and unhealthy media use (Fitzpatrick et al., 2022).

Parenting stress is common among East German parents. The majority of families with infants and toddlers polled in Bavaria, southern Germany, described the pandemic as stressful. The main challenges are parental affective symptoms and a lack of childcare resources as a result of parenting stress. When compared to pre-pandemic studies, infants and toddlers have comparable rates of mental health problems (Buechel et al., 2022).

Galbally et al.'s study of the mental health of mothers and children, as well as the outcomes of parenting in the context of the COVID-19 pandemic, used samples from Melbourne, Australia, which experienced one of the world's longest lockdowns in response to the pandemic. The study's findings suggest that early childhood childcare and mental health outcomes can be long-lasting, at least in the short term (Galbally, Megana, b & Send mail to Galbally M.; Watson, Stuart Ja, b, c; Lewis, Andrew Jd; van IJzendoorn, Marinus He, 2022).

Similarly, the novel coronavirus (COVID-19) has spread across the United States, causing significant changes in almost all aspects of daily life. Parents are more likely to experience parental burnout as a result of these changes. Parental burnout as a result of chronic conditions and high levels of stress associated with caregiving as a result of a mismatch between the demands of parenting and the resources available to parents to meet those demands. According to research on parental burnout, parents who are burnt out are more likely to engage in child abuse and neglect, putting children at risk of negative short- and long-term outcomes (Griffith, 2020).

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Many childcare programs have been implemented as a result of various research findings in the last two years regarding the Covid 19 pandemic. The findings of research on childcare programs are required to develop a research roadmap for the next phase of a study. A research roadmap is essential for the continuation of future research and the identification of future research trends. There has been no bibliometric analysis of appropriate parenting programs during the Covid-19 pandemic. It is therefore critical to map the methodology used in parenting research.

## Methodology

This study uses bibliometric analysis. The term "bibliometric analysis" can be defined as a statistical evaluation of a scientific publication, whether in the form of a journal, book, or another scientific article (Eck & Waltman, 2010). Not only that but "bibliometric analysis" is

also a way to measure and evaluate the influence of a publication, scientific research, or measurement of the quality of an institution in the scientific community.

Quite a several researchers have used this method to explore the influence of a particular scientific field. Usually, this method is used by librarians and researchers in all areas. We can review a current research theme and potential future themes that will trend through bibliometric analysis. Not only will the possible future research themes look like, but also tracking a research group or community in a particular paper that impacts a specific field.

The flow of this research is the first, collecting all the articles that appear after searching for them in the publish and perish application with the source keyword "parenting during covid-19". The number of reports collected is as many as 200 articles. Researchers deliberately limit the range of years between 2019 to 2021 because there was an outbreak or a reasonably significant spread of the covid virus in those early years. Then, the selected articles are articles taken from the Scopus database. It is done because Scopus is a large company that provides the most extensive abstracts and citation databases from peer-reviewed literature: scientific journals, books, and conference proceedings. So that the reputation of Scopus is no longer in doubt related to the reliability of scientific sources and literature that will be cited, the researchers decided that only articles with a Scopus index would be investigated further using bibliometric analysis.

Then, after collecting articles using the publish and perish application, the second is downloading the data source by first changing the file type to CSV and also to excel type. It is done to make it easier to filter each article category, whether the category number h index, ranking, author, article title, year of publication, journal in which it is published, or type of article. After that, the data is converted into RIS data to be analyzed using the VOS Viewer application.

VOS Viewer is a software or tool for constructing and visualizing bibliometric relationships from a journal, article, book, or another type of publication. The RIS data type is then used to answer the objectives of this study. So that we get a conclusion related to the research trend of "parenting during the covid-19 worldwide pandemic".

## Result and Discussion

After conducting studies and research carried out following the above method stages, a research result was obtained, which can be explained as follows.

The number of articles that have been collected is as many as 200 articles. They all of which are indexed by Scopus. Of the 200 reports, it shows the number of the most prolific writers, and also, the titles of the articles are pretty interesting. The number of articles can be seen in the following excel table link: [Collection of 200 Parenting Articles During Covid on Scopus](#)

Of the 200 articles, the majority only had one author in articles related to parenting during covid-19. 13 authors compiled Scopus-indexed articles of two articles each. The authors are (Alhuzimi, 2021; Babore et al., 2021; Chen et al., 2020; Goldberg et al., 2021; Kelly et al., 2020; Lee et al., 2021; Mahmoud et al., 2020, 2021; Morelli et al., 2020; BS Russell et al., 2020; Beth S Russell et al., 2021; EM Westrupp et al., 2021; Elizabeth M Westrupp et al., 2020; Ye et al., 2021). Of the 13 authors publish their articles with various themes. Meanwhile, other writers consistently write ideas about the relationship between parenting programs during covid-19.

The range of years used in this study is from 2019 to 2021. The data collection results show that the highest number of Scopus-indexed publications occurred in 2021, namely 118 articles. Furthermore, the rest, namely 82 articles published in 2020.

While related to publishers or publishers, 133 publishers or publishers of journal names are collected. The publishers who produce the most articles related to parenting during covid-19 are found in the journal *Frontiers in Psychology* and the *International Journal of Environmental Research and Public Health*, each with nine pieces. Meanwhile, the second-

largest journal is Family Process, with six articles published, and the third is the Journal of Family Violence and Research in Developmental Disabilities, each with five articles.

The metadata of this article was downloaded on November 23, 2021. The downloaded bibliometric data includes all of them, whether in articles, books, editorials, or others. Regarding the types of publication articles, there are 162 articles: book 1, book chapter 1, editorial 2, letter 8, note 10, and review 16. The researcher takes not only the type of article, but it adds variety to the findings and impacts or strengthens each other a topic under study. To determine the distribution of research titles and abstracts, the researcher attaches the following link as an excel data file for the 200 publications.

Meanwhile, the most cited publication titles are from L. Cluver, with the title Parenting in Covid-19 published by The Lancet in 2020. The type of this article is in the form of a letter. While the other top five authors can be seen in the **table 1**.

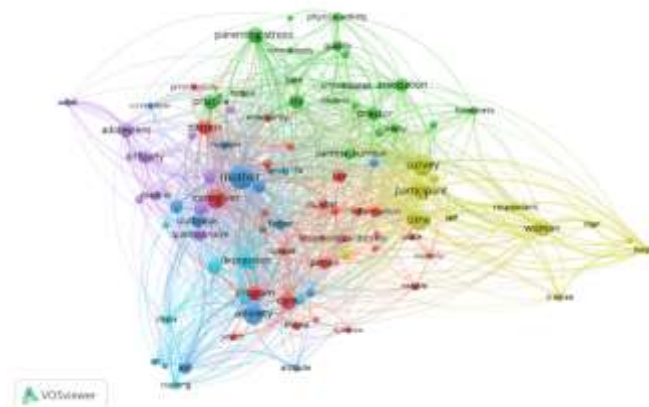
**Table 1. List of 10 publications articles showing the most prolific authors, publishers, and most cited publication titles**

No	Author	Cited	Year
1.	(Cluver et al., 2020)	263	2020
2.	(Brown et al., 2020)	189	2020
3.	(Griffith, 2020)	113	2020
4.	(Ghosh et al., 2020)	112	2020
5.	(Russell et al., 2020)	95	2020
6.	(Badawy & Radovic, 2020)	63	2020
7.	(Chung et al., 2020)	57	2020
8.	(Marchetti et al., 2020)	54	2020
9.	F. Stanescuaski	53	2020
10.	(Yoshikawa et al., 2020)	52	2020

### **Bibliometric Network, and Parenting Program Research Trends During Covid.**

The next step is to analyze the previously described data in the bibliometric analysis. This bibliometric analysis creates network, overlay, and density visualizations using the Vos Viewer application. It is done to find out the biometric network between the articles from the downloaded metadata.

The bibliometric networks have terms such as nodes and edges. The Nodes are visualizations such as circles indicating related researchers, publications, journals, or keywords. It is connected to the edge. Edge is a line relationship that means a relationship between each node. It not only shows the connection between nodes, but the edge also shows the level of the strong relationship. The closer the distance between the nodes, the higher the level of relationship between the nodes.



**Figure 1. Visualization of Nodes and Edges in Article Publication with the Theme: Pandemic During Covid-19.**



From the picture, it can be seen the results of mapping and also clustering. Mapping is done to obtain a detailed picture of the bibliometric network (Waltman et al., 2010). Clustering is used to gain insightful or insight for researchers or readers so that they can show bibliometric grouping.

The picture above shows that the circle shows keywords or terms that often appear in article titles or abstracts. The size of the process indicates the relevance of each article. The bigger each rotation, the greater the relevance to that keyword or term. Examples are mother, caregiver, anxiety, parenting stress, and care. These keywords often appear in the title or abstract and relate to each article.

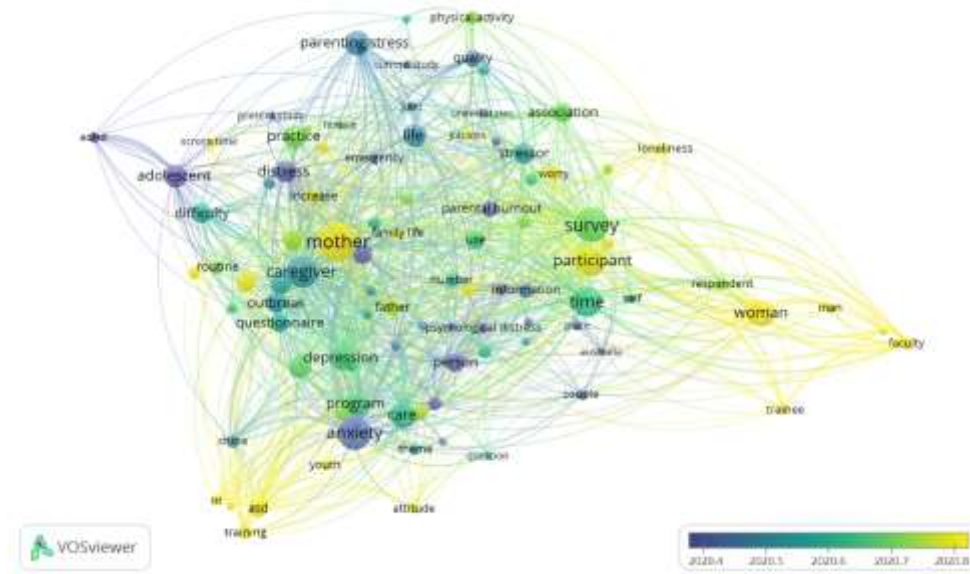
The results of the 200 articles collected have shown some six clusters. The six clusters can be seen from the grouping of the same color. The first cluster consists of 29 red items that are in a more central position, including terms or keywords such as *Addition, article, Australia, burden, care, caregiver, couple, depressive symptom, distress, emergency, face, information, isolation, number, order, paper, patient, person, place, the present study, program, psychological distress*. Then the second cluster consists of 21 dark green items in the top position, consisting of *Association, child maltreatment, the current study, female, higher level, home order, job loss, June, lack, life, loneliness, mage, and parental burnout. Important stress, physical activity, practice, quality, social isolation, stressor, united states, worry*. Next, the third cluster consists of a collection of nodes that are dark blue, consisting of 13 items, such as *the terms Anxiety, ASD, attitude, autism spectrum disorders, father, gender, increase, mother, outbreak, parental stress, scale, screen time, social support*.

Next, the fourth cluster consists of 12 light green items: *Employment, faculty, importance, man, participant, respondent, self, survey, time, trainee, woman, and young child*. The fifth purple cluster consists of 10 items on the far left: *Adhd, adolescent, difficulty, mothers, quarantine, questionnaire, relation, routine, school, and student*. Then the last one is the sixth cluster, which is light blue and consists of 10 items, namely, *Baseline, China, context, depression, evidence of family life, intervention, training, week*.

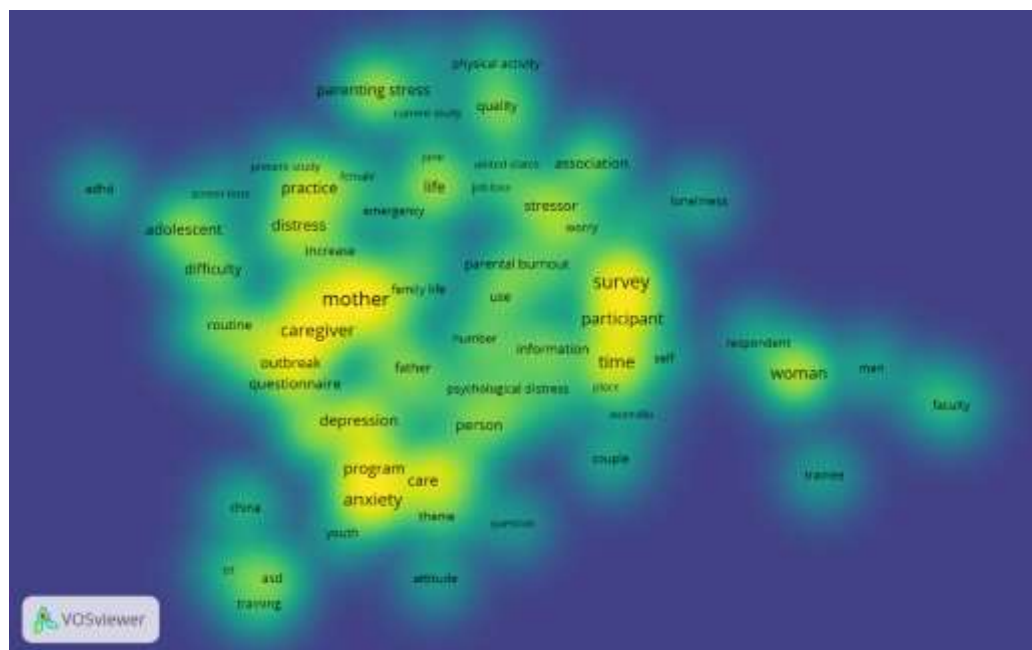
**Table 2.** Clustering on Vos Viewer Visualization Sorted by Alphabet (Alphabetical)

Cluster	Keyword
Cluster 1 (29 items) red color	<i>Addition, article, Australia, burden, care, caregiver, couple, depressive symptom, distress, emergency, face, information, isolation, number, order, paper, patient, person, place, the present study, program, psychological distress</i>
Cluster 2 (21 items) dark green	<i>Association, child maltreatment, the current study, female, higher level, home order, job loss, June, lack, life, loneliness, mage, parental burnout, parenting stress, physical activity, practice, quality, social isolation, stressor, united states, worry</i>
Cluster 3 (13 items) dark blue	<i>Anxiety, ASD, attitude, autism spectrum disorders, father, gender, increase, mother, outbreak, parental stress, scale, screen time, social support</i>
Cluster 4 (12 items) light green color	<i>Employment, faculty, importance, man, participant, respondent, self, survey, time, trainee, woman, young child</i>
Cluster 5 (10 items) purple color	<i>ADHD, adolescent, difficulty, mothers, quarantine, questionnaire, relation, routine, school, student</i>
Cluster 6 (10 items) light blue	<i>Baseline, china, context, depression, evidence family life, intervention, training, trt, week</i>

The cluster above shows the relationship between each of its groups. The next step is mapping research trends based on the year of publication. This section will be shown on the overlay menu in the Vos viewer application. This overlay is used to determine research trends related to parenting programs during the covid pandemic worldwide. Even though the covid hit started in late 2019 until 2021, the overlay data showed that researchers started publishing it from March 2020 to August 2020.



The overlay visualization shown in the image above indicates circles or nodes as keywords. These nodes have various color nodes that indicate the year the article was published. Because this covid pandemic occurs between late 2019 and 2021, the time distance shown is in the same year, only showing the difference in months. That is only six months, between March to August 2020.



Meanwhile, another topic related to parenting during covid 19 is those with a dark yellow color. That can be seen in Figure 3, such as the terms ADHD, loneliness, attitude, screen time, job loss, and psychological distress to see the trends and trends of subsequent research by taking the term.

## Conclusions

The theme of parenting during the covid pandemic is an exciting theme to be discussed in reputable international journals. It can be seen that reputed international journals that Scopus have indexed have published various articles about various parenting changes that have changed due to Covid-19. Differences in parenting habits, work habits, and habits of approach to educating children have changed. From these 200 articles, we have found one exciting research development opportunity to be discussed or researched. The theme of research on parenting is a potential topic to be published in several other reputable international journals. Encourage early childhood researchers to conduct the best research in the field of early childhood development. The hope is that the many studies that have been carried out related to parenting will provide an overview and improve the quality of care for early childhood, especially parenting after the COVID-19 pandemic.

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