

Bibliometric Analysis With Vosviewer On The Concept Of Emotion Socialization

Aysun SEVEN UZUN, İsa KAYA, Gökçen İLHAN İLDİZ

Abstract

Every individual is born with the innate ability to regulate and express their emotions, but they need guidance to use this ability correctly at the right time and in the right place. Undoubtedly, the people who will accompany them on this journey are the family members in the home where they were born—that is, their parents. For the individual to use these innate skills correctly, their parents must accurately understand their emotions and help socialize those emotions through appropriate behavior. This study aims to evaluate the published works related to the concept of emotional socialization in the Scopus database using bibliometric analysis and to identify the characteristics and developmental process of existing studies in the literature between 1988 and 2025. Access was obtained to 116 studies published between 1988 and 2025 in the Scopus database. The bibliometric analysis of the studies was conducted using the Vosviewer software. It was found that the highest number of studies and citations related to the concept of emotional socialization occurred in 2001; the most cited study was titled “Parental coping with children's negative emotions: Relations with children's emotional and social responding”; and the United States was the country that published the most articles. The most frequently used keywords related to emotional socialization were found to be human, socialization, and emotion.

Keywords: Emotion, Emotional Socialization, Parents' Emotional Socialization Behaviors, Bibliometric Analysis

INTRODUCTION

Emotions, which influence our behavior alongside cognitive processes such as memory and decision-making, are tools that enable individuals to understand and express their current state quickly. At the same time, emotions help individuals maintain positive situations and cope with negative ones (Cole, Martin, & Dennis, 2004). Therefore, emotions are viewed as a social function (Keltner & Gross, 1999). Although emotions help us understand the situation we are in as good or bad, they need to be regulated in such situations because they can cause destructive effects when expressed incorrectly in an inappropriate environment (Gross, 2014; Gross & Thompson, 2007).

Emotion regulation refers to an internal process that is physiological, subjective, and behavioral. In other words, emotion regulation is a process that involves how an individual experiences and manages their emotions, motivation, and physical processes in a manner appropriate to their situation, what changes they make, and how they express themselves (Gross, 2013; Eisenberg et al., 2007; Thompson, 1994). In other words, emotion regulation is an individual's maintenance of psychological well-being (Kring et al., 2009). It would be incorrect to describe emotion regulation solely as the management of negative emotions. This is because emotion regulation encompasses the management of both negative and positive emotions, reducing or increasing their intensity (Gross, 1999).

Every individual who opens their eyes to the world and can regulate and express their emotions (Cole & Tan, 2007) needs their parents' guidance to use this ability effectively (Eisenberg et al., 1998). Infants who do not know how to cope with their emotions during infancy need their caregiver. Thanks to the warm, intimate interaction between the caregiver and the infant, the infant relaxes and exhibits positive behaviors. This positive interaction also strengthens the bond between the infant and the caregiver (Cole & Tan, 2007; Cole et al., 2009; Fogel & Thelen, 1987). In short, the foundation of emotion regulation skills is formed by the interaction between the primary caregiver and the infant during infancy (Derryberry & Rothbart, 1988). Children in early childhood begin to regulate their emotions using emotion regulation skills established in infancy (Eisenberg & Morris, 2003). Parents' responses to their children's emotions are of great importance for children's emotional development (Blair et al., 2014). In their study, Eisenberg et al. (1998) emphasize the importance of parents' approach to their children's emotions in enabling children to gain emotional and social competence (Eisenberg et al., 1998).

¹ Kırklareli University, aysun.seven@klu.edu.tr, orcid.org/0000-0003-0226-1776

² Fatih Sultan Mehmet Foundation University, ikaya@fsm.edu.tr, orcid.org/0000-0003-3604-1368

³ Tekirdağ Namık Kemal University, gildiz@nku.edu.tr, orcid.org/0000-0002-2091-5270

Parents socialize their children's emotions by responding to them, talking about them, or expressing their own emotions (Denham et al., 2010; Eisenberg et al., 1998). Parents respond to their children's emotions (positive or negative emotions) in supportive and unsupportive ways. Parents' supportive approaches positively influence children's emotion regulation skills, emotional awareness, and social competence (Denham, Bassett, & Wyatt, 2007), while unsupportive approaches cause children to suppress their emotions, increase their arousal levels, and negatively affect their emotion regulation skills. Individuals who receive negative responses to their emotions from their parents experience weakened emotion regulation skills, increased behavioral problems, and an increased risk of developing psychological problems in later life (Denham et al., 2000; O'Neal & Magai, 2005). Individuals who receive positive responses to their emotions from their parents develop the ability to understand both their own emotions and those of others (Debaryshe & Fryxell, 1998). At the same time, they know how to cope with problems, their peer relationships develop, and their self-esteem increases (Gottman, Katz, & Hooven, 1997). Given the critical role of emotional socialization in an individual's emotional, social, and psychological development, it is necessary to examine the scientific literature on this concept systematically.

This study examined studies published in the Scopus database on the concept of emotion socialization using bibliometric methods, including author, citation, journal, country, institution, keyword, text, and author-matching analyses. Bibliometric studies are important research efforts that guide and inspire researchers wishing to conduct work on a particular topic by highlighting its various dimensions and illustrating its development over time (Van Raan, 2005: 55). The absence of a bibliometric analysis of emotional socialization suggests that this study will contribute to the field.

The Concept Of Emotional Socialization

Many theories and approaches emphasize the concept of emotional socialization, focusing on humans, as do many researchers in this field (Kılıç, 2020). Therefore, in the literature, many definitions of emotional socialization can be found, such as recognizing and accepting one's child's emotions and modeling them (Denham, 1998), and parents' responses to their children's emotions (Eisenberg et al., 1999). Although each theory, approach, and researcher offers different definitions, they all share the common point that parents play an active role in this process, which is of great importance. Just as there are multiple definitions in the literature, there are also numerous models that emphasize the impact of emotional socialization on child development. However, the models that have received the most attention and are most frequently encountered in studies are Denham's developmental model, Saarni's emotional competence model, and Eisenberg and colleagues' explanatory model (Eisenberg et al., 1998). Each individual is unique. Therefore, the emotions they feel in response to the situations they encounter and the reactions they exhibit are unique to them. Consequently, not every child will feel the same emotion in response to an event, nor will every parent exhibit the same reaction (Granic & Loughheed, 2016; Loughheed et al., 2015). Many studies in the literature distinguish between supportive and unsupportive responses that parents give in response to their children's emotions (Eisenberg et al., 1998; Ersay, 2014; Eisenberg, Cumberland, & Spinrad, 1988; O'Neal & Magai, 2005). Supportive responses are positive statements that indicate awareness of the child's feelings, while unsupportive responses are negative statements that suggest the child's feelings are simple or insignificant.

METHOD

In this study, the bibliometric analysis method based on scientific mapping, a quantitative research method, was used. Bibliometrics is a technique widely used in the social sciences and was first used by Alan Pritchard in 1969 (Lawani, 1981; Okuba, 1997). Pritchard (1969) defines bibliometrics as the extraction of findings by analyzing publications in any field using mathematical and statistical techniques with specific indicators (Pritchard, 1969). In short, bibliometric studies are important for providing researchers with information about the state of the literature on the topic they wish to research (Atılgan et al., 2008, p. 394). This study is important because it provides insights into the state of the literature on emotional socialization from 1988 to 2025. This section provides information on the study's purpose, how the dataset was accessed and used, and the analyses.

PURPOSE OF THE STUDY

This study aims to examine the current state of the concept of emotion socialization in the literature and to analyze studies on emotion socialization in the Scopus database between 1988 and 2025 using bibliometric methods, identifying its characteristics and the development of this topic. The Scopus database

was chosen for this study because it provides greater access to social science research than other databases. As no bibliometric analysis of studies on the concept of emotional socialization has been found, this study is expected to contribute to the field and provide a conceptual basis for future research. The fact that only content indexed in Scopus was used in the study constitutes a limitation of the article. Since this situation limits the scope of the research findings, the findings are intended to provide a general overview of the literature. This study seeks to answer the questions listed below:

1. Who are the authors with the most co-authored papers on the concept of emotional socialization in Scopus?
2. Who is the most cited author in Scopus regarding the concept of emotional socialization, and which countries and institutions have published the most articles on this topic?
3. What are the most frequently used keywords in Scopus articles related to the concept of emotional socialization?
4. What are the results of bibliometric matching analyses of article texts in Scopus related to the concept of emotional socialization?
5. What do bibliometric matching analyses of authors in Scopus reveal regarding the concept of emotional socialization?
6. What do the co-citation analyses of authors in Scopus reveal regarding the concept of emotional socialization?

DATA SET AND ANALYSIS

There are many databases from which data can be obtained for bibliometric analysis. However, within the scope of this study, Scopus content was used as the database criterion, and VOSviewer 1.6.20 was used to analyze the data. The program used facilitates the discovery of how the concept under consideration has changed over time and which concepts are used in connection with it. The program offers many possibilities, such as visualizing data sets and creating heat and connection maps. These possibilities make an important contribution to the presentation of the analyses performed. The data to be analyzed in the VOSviewer program were obtained from the Scopus database because it contains more qualified, reliable studies, presents studies from various disciplines together, and includes more studies in the field of social sciences. A search conducted on January 28, 2026, using the keyword “emotional socialization” and selecting “all fields,” yielded 116 studies published between 1988 and 2025. It was observed that 104 of these studies were written in English, originated from 160 different institutions, and were published in 101 different journals. The data obtained for the years 1988–2025 in the study conducted on the keyword “emotional socialization” are presented in Table 1.

Table 1. Data for the years 1988–2025 using the keyword “emotional socialization”

Publication Type	Number
Article	91
Statement	2
Book	1
Book Chapter	13
Note	4
Compilation	5
Total	116

FINDINGS

This section presents the findings from the analysis of bibliometric data on the concept of emotional socialization, organized under eight main headings.

CO-AUTHORSHIP OF AUTHORS

Under this heading, a co-authorship analysis was conducted for authors with the most connections and collaborations. Given the requirement of at least one publication and citation, a network map was created for 218 authors. The names with the highest connections were grouped into two clusters, with a connection strength of 27. The three most cited authors are Fivush, Robyn, with 352 citations; Fabes, Richard A., Kupanoff, Kristina, Leonard, Stacie A., and Martin, Carol Lynn, with 266 citations. There are no connections between the authors who have produced the most on the concept of emotional socialization (Dunsmore Julie C., Macarthur Kelly Rhea, Fivush, Robyn, and Ahn Heyjun, respectively).



Figure 1. Co-authorship Network

CITATION OF AUTHORS

To identify the citation network among authors, a citation network map was created based on the condition of having at least one publication and one citation. A total of 218 units were identified as connected. The analysis revealed 218 clusters, each containing a single author and having zero connection strength. The three authors who received the most citations among the authors are, in order, Fivush, Robyn, with 352 citations; Fabes, Richard A., Kupanoff, Kristina, Leonard, Stacie A., and Martin, Carol Lynn, with 266 citations.

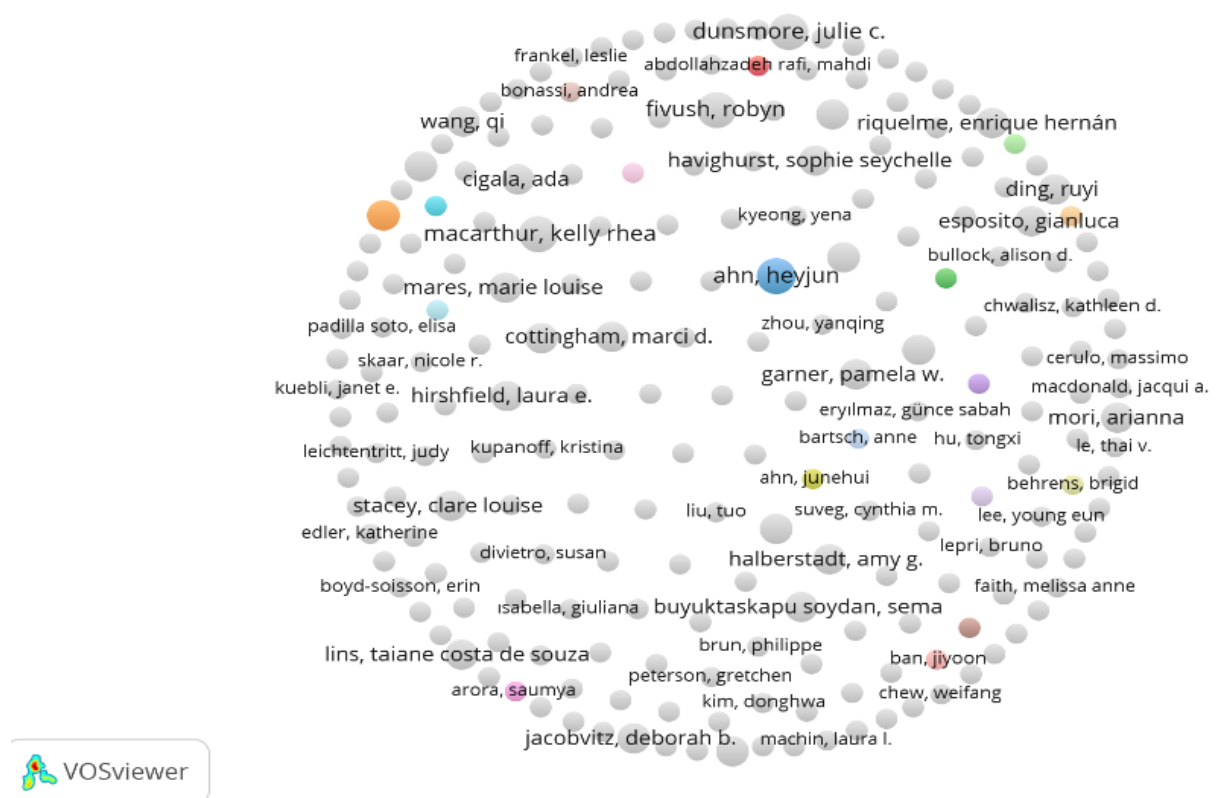


Figure 2. Authors' Citation Link Analysis

CITATION OF COUNTRIES

Under this heading, a network map of citations received by authors, grouped by country of residence, has been created. In the analysis, 27 units were included, provided that each country had at least one study and that each study had received at least one citation. The analysis revealed 27 clusters and a total connection strength of 0. The top three countries in terms of citations are: the United States with 1,663, Spain with 110, and Italy with 38.

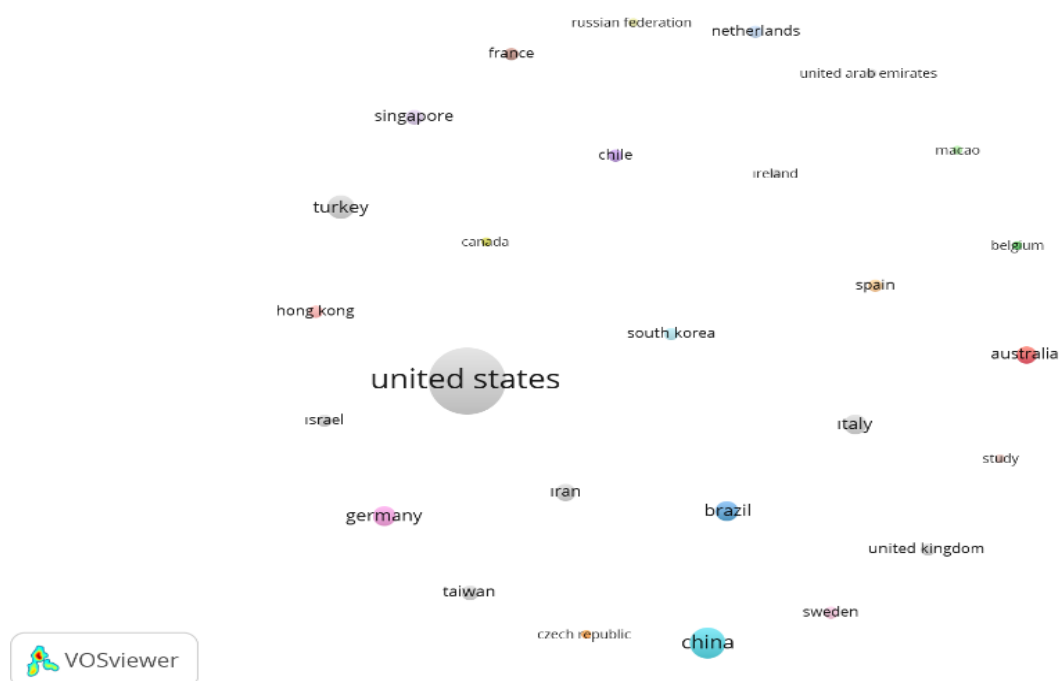


Figure 3. International Citation Network

CITATION OF ORGANIZATIONS

The citation analysis of institutions was conducted according to the requirement that each institution must have published at least 1 study and received at least 1 citation. The analyses were conducted on 155 units with zero connection strength. The top three institutions with the most citations are, respectively, the Department of Family Resources and Human Development at Arizona State University, Tempe, AZ, United States, with 266 citations; and the Department of Behavioral Sciences at the University of Minnesota Medical School, with 184 citations.

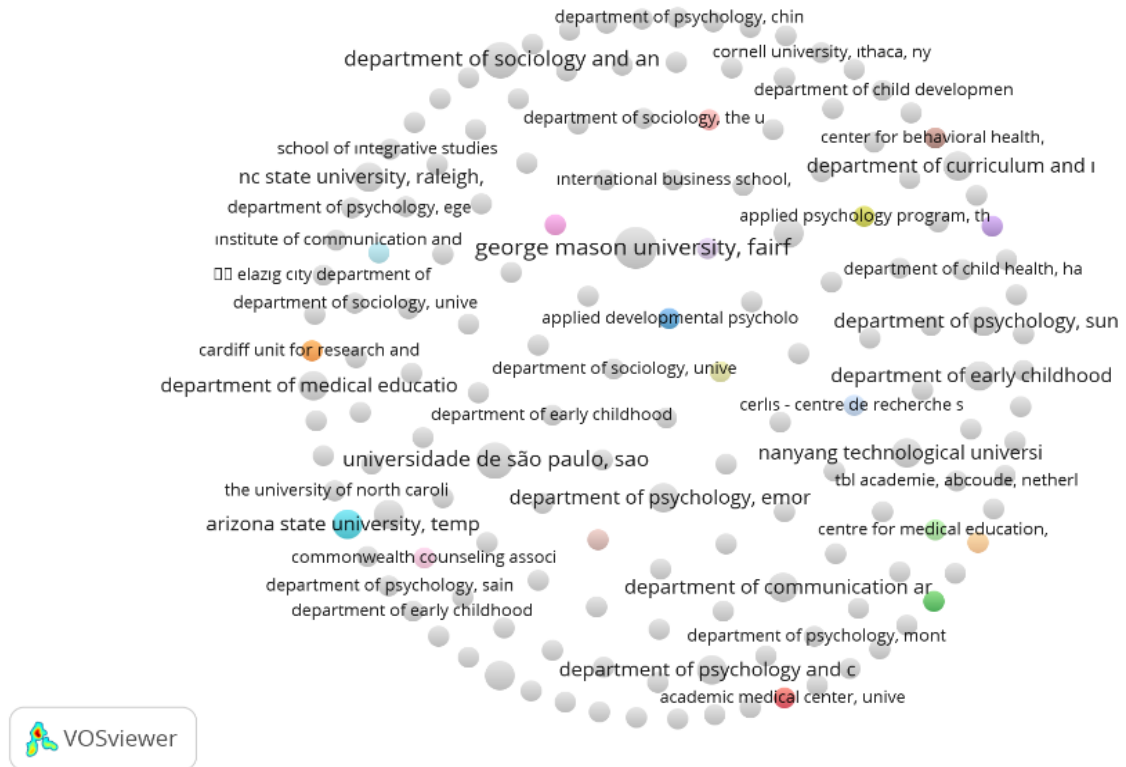


Figure 4. Institutions' Citation Network

CO-OCCURRENCE OF ALL KEYWORDS

When examining the most frequently used keywords in studies related to the concept of emotional socialization, the three most recurring keywords are, in order: emotional socialization with 20 repetitions and 84 link strength, emotion socialization with 11 repetitions and 51 link strength, emotion regulation with 11 repetitions and 52 link strength, emotion with 11 repetitions and 54 link strength, and socialization with 10 repetitions and 51 link strength.

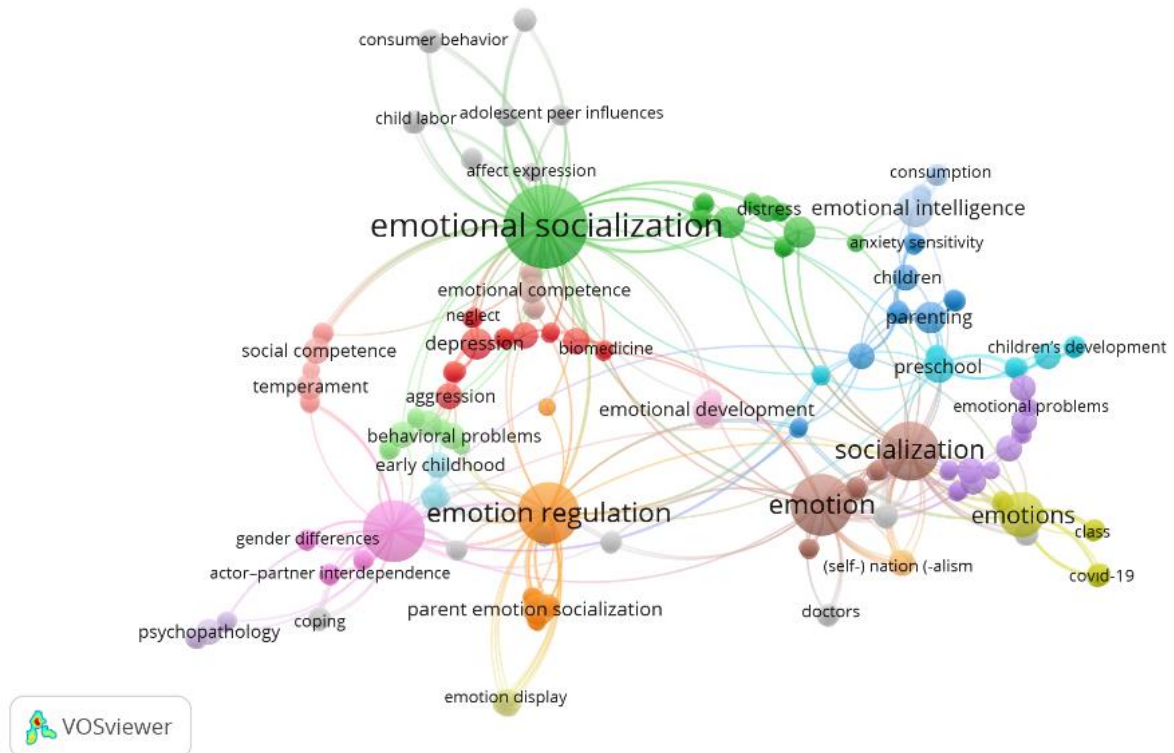


Figure 5. Most Frequently Repeated Keyword Network

BIBLIOGRAPHIC COUPLING OF DOCUMENTS

When two independent sources cite a common work, bibliographic matching can be considered. Therefore, in order to perform a bibliographic matching analysis of the texts, the analysis was conducted considering the condition that each text must have received at least one citation. As a result of the analysis of 90 units, 11 clusters, and 121 connections, 145 total connection strengths were identified. The 3 publications with the most bibliographic matching and their citations are as follows: Fabes (2001) with 266 citations, Hafferty (1988) with 184 citations, and Kuebli (1995) with 183 citations.



Figure 6. Bibliographic Matching Network of Studies Conducted

BIBLIOGRAPHIC COUPLING OF AUTHORS

Under this heading, bibliographic matching analyses of authors are conducted. It was performed on 218 units found to be connected, provided they had received at least 1 citation, and 13 clusters, 1087 connections, and 3524 total connection strength were identified. The ranking of several authors with the most bibliographic matches, from highest to lowest total connection strength, is as follows: 2 authors, Neoh Michelle Jin Yee and Esposito Giancula, with 123 connection strength; 2 authors, Jacobvitz Deborah B. and Hazen Nancy I., with 103 connection strength.

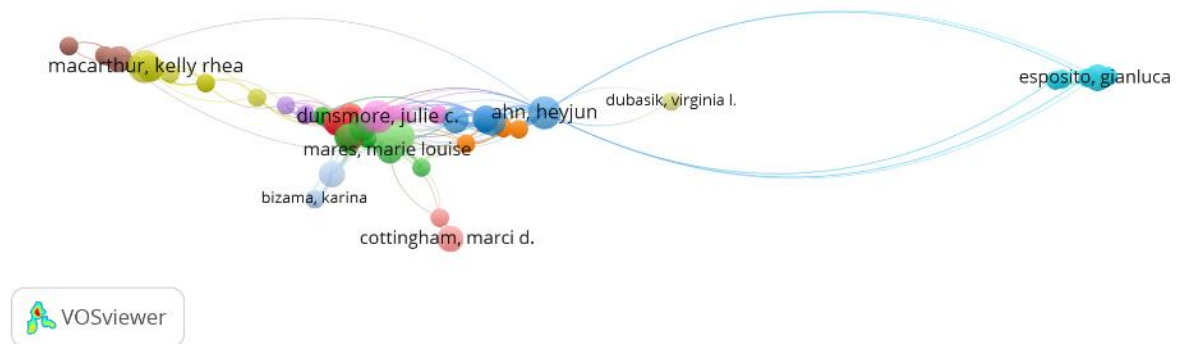


Figure 7. Authors' Bibliographic Matching Network

CO-CITATION OF CO-AUTHORS

A common citation, or “co-citation,” refers to different sources cited in a single publication. Under this heading, when we set the citation count to at least 1, we analyzed 506 authors, revealing 19 clusters, 1,776 connections, and a total connection strength of 2,049. The three authors with the most co-citations are Brown, Peter M., Jason K., and Baker, with 6 citations and 4 authors; Bentler and Allen, with 5 citations and 2 authors.

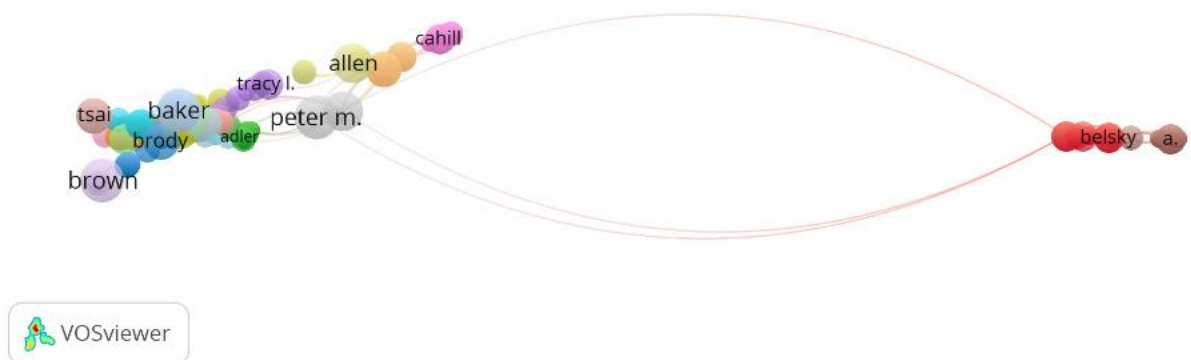


Figure 8. Network of Co-Authors

RESULT and DISCUSSION

The concept of emotional socialization emerges as a key factor in the development of children’s ability to understand, regulate, and appropriately apply their emotions in daily life. Although this concept has a significant impact on both an individual’s development and their ability to form healthy relationships in later life, it is notable that insufficient attention has been paid to it. While the number of studies on emotions has increased in recent years, they are still considered inadequate. An individual requires parental assistance to socialize the emotions they experience. Building on this premise, this study aims to evaluate the concept of emotional socialization through bibliometric analysis, specifically by presenting quantitative data regarding its position in the international literature. Studies centered on the concept of emotional socialization are very scarce in the Scopus database. The results of the keyword analysis indicate that the concept of emotional socialization is studied within the same framework as the concepts of emotion, emotion regulation, emotional socialization, and socialization. However, it is observed that the studies focus more on the concept of emotional socialization.

Findings from both co-authorship and citation analyses, as well as author-citation analyses, indicate that the network of collaboration among authors is limited and concentrated among certain authors. This suggests a fragmented and disjointed structure across different fields, highlighting the importance of increasing collaboration among authors in future studies to ensure coherence in the literature.

Findings from the country and institutional citation analysis indicate that research is concentrated in certain countries and institutions. This situation indicates that international collaborations and research conducted across different cultures are not receiving the recognition they deserve, that inter-institutional collaboration is virtually nonexistent, and that sufficient support is not being provided for future research.

Therefore, it is of great importance that future studies take these points into account in order to fill the gaps in the field and increase diversity in the literature.

When examining the findings related to the most frequently used keywords, it is notable that the majority of studies have focused on the concepts of emotional socialization and emotional regulation. Additionally, it has been observed that the concept of emotional socialization is addressed using different terminology in the literature. This indicates that researchers have not been able to establish a standard regarding the concept. It is important for future studies to pay attention to this issue in order to establish a consistent framework in the literature.

When examining the findings of the bibliometric co-citation analysis of the text and authors, it became evident that certain authors occupy a central position in the literature and that their works are cited as references in other studies from both theoretical and methodological perspectives. However, the differentiation within the collaboration clusters among authors indicates that research in the field of emotion socialization is progressing in a fragmented manner. This situation once again highlights the importance of collaboration among authors.

The analyses revealed that there was zero link strength between certain authors, countries, or institutions. This is believed to stem from the fragmented nature of the field and data limitations. This situation indicates that developments in the field of emotional socialization are ongoing.

While parents play a crucial role in the socialization of emotions, analysis has revealed that studies on parents have not given this role the attention it deserves. The findings indicate that the concept of emotional socialization is limited in its ability to explain both the individual's development and the extent to which parents are important in the process of emotional socialization. Studies on parents' emotional socialization behaviors, however, are too few to allow for a comprehensive analysis. The findings suggest that more research is needed on the concept of emotional socialization and the importance of parents in the socialization process, and that the visibility of such studies in the literature must be increased. Bibliometric studies are used to identify the topics, areas of interest, and knowledge gaps in the literature related to parenting. Therefore, conducting such studies is crucial for establishing an evidence-based framework regarding which topics parenting education programs should focus on, which approaches yield positive outcomes, and which topics should be addressed in future research.

A limitation of this study is that it is based on data from 116 studies conducted between 1988 and 2025 and available in the Scopus database. The 116 studies conducted during this period provide only a limited representation of the literature on emotional socialization, and it is recommended that the findings be interpreted with caution to avoid drawing universal conclusions. Therefore, for future studies, it is important to replicate this study using a larger dataset once the number of studies in the Scopus database increases and to search different databases to enhance the generalizability of the results.

Declarations

Conflict of Interest

No potential conflicts of interest were disclosed by the author(s) with respect to the research, authorship, or publication of this article.

Ethics Approval

It is exempt from the Ethics Committee's decision.

Funding

No specific grant was given to this research by funding organizations in the public, commercial, or not-for-profit sectors.

Research and Publication Ethics Statement

- This material is the authors' own original work, which has not been previously published elsewhere.
- The paper reflects the authors' own research and analysis in a truthful and complete manner.
- The results are appropriately placed in the context of prior and existing research.
- All sources used are properly disclosed.

Contribution Rates of Authors to the Article

The authors provide equal contribution to this work.

REFERENCES

- Atılğan, D., Atakan, C., & Bulut, B. (2008). Türkçe kütüphanecilik dergilerinin atıf analizi. *Türk Kütüphaneciliği*, 22(4), 392-413.
- Blair, B. L., Perry, N. B., O'Brien, M., Calkins, S. D., Keane, S. P., & Shanahan, L. (2014). The indirect effects of maternal emotion socialization on friendship quality in middle childhood. *Developmental psychology*, 50(2), 566–576. <https://doi.org/10.1037/a0033532>
- Cole, P. M., & Tan, P. Z. (2007). *Emotion socialization from a cultural perspective*. In J. E.
- Cole, P. M., Dennis, T. A., Smith-Simon, K. E., & Cohen, L. H. (2009). Preschoolers' emotion regulation strategy understanding: Relations with emotion socialization and child self-regulation. *Social development*, 18(2), 324–352. <https://doi.org/10.1111/j.1467-9507.2008.00503.x>
- Cole, P. M., Martin, S. E., & Dennis, T. A. (2004). Emotion regulation as a scientific construct: methodological challenges and directions for child development research. *Child development*, 75(2), 317-333. <https://doi.org/10.1111/j.1467-8624.2004.00673.x>
- Debaryshe, B. D., & Fryxell, D. (1998). A developmental perspective on anger: Family and peer contexts. *Psychology in the Schools*, 35(3), 205–216. [https://doi.org/10.1002/\(SICI\)15206807\(199807\)35:3<205::AID-PITS2>3.0.CO;2-M](https://doi.org/10.1002/(SICI)15206807(199807)35:3<205::AID-PITS2>3.0.CO;2-M)
- Denham, S. A., Bassett, H., Hamada, & Wyatt, T. M. (2010). *Gender differences in the socialization of preschoolers' emotional competence*. In A. Kennedy Root & S. Denham (Eds.), *The role of gender in the socialization of emotion: Key concepts and critical issues*. New Directions for Child and Adolescent Development, 128, 29–49. San Francisco: Jossey-Bass.
- Denham, S. A., Bassett, H. H., & Wyatt, T. (2007). *The socialization of emotional competence*. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization*. Theory and research (pp. 614–637). New York: The Guilford Press
- Denham, S. A., Workman, E., Cole, P. M., Weissbrod, C., Kendziora, K. T., & Zahn-Waxler, C. (2000). Prediction of externalizing behavior problems from early to middle childhood: the role of parental socialization and emotion expression. *Development and psychopathology*, 12(1), 23–45. <https://doi.org/10.1017/s0954579400001024>
- Derryberry, D., & Rothbart, M. K. (1988). Arousal, affect, and attention as components of temperament. *Journal of personality and social psychology*, 55(6), 958–966. <https://doi.org/10.1037//00223514.55.6.958>
- Denham, S. A. (1998). *The Guilford series on special and emotional development. emotional development in young children*. New York: Guilford Press.
- Eisenberg, N., Fabes, R. A., Shepard, S. A., Guthrie, I. K., Murphy, B. C., & Reiser, M. (1999). Parental reactions to children's negative emotions: Longitudinal relations to quality of children's social functioning. *Child Development*, 70, 513–534.
- Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological inquiry*, 9(4), 241–273. https://doi.org/10.1207/s15327965pli0904_1
- Eisenberg, N., & Morris, A. S. (2003). Children's emotion-related regulation. *Advances in Child Development and Behavior*, 30, 189–229. [https://doi.org/10.1016/S0065-2407\(02\)80042-8](https://doi.org/10.1016/S0065-2407(02)80042-8)
- Eisenberg, N., Hofer, C., & Vaughan, J. (2007). Effortful control and its socioemotional consequences. *Handbook of emotion regulation*, 2, 287–288.
- Ersay, E. (2014). Parental Socialization of Emotion: How Mothers Respond to Their Children's Emotions in Turkey. *The International Journal of Emotional Education*, 6/1, 33–46.
- Fogel, A., & Thelen, E. (1987). Development of early expressive and communicative action: Reinterpreting the evidence from a dynamic systems perspective. *Developmental Psychology*, 23, 747–761.
- Gross, J. J. (1999). Emotion and emotion regulation. *Handbook of personality: Theory and research*, 2, 525–552.
- Gross, J. J. (2014). Emotion regulation: Conceptual and empirical foundations. *Handbook of Emotion Regulation*, 2, 3–20.

- Gross, J. J., & Thompson, R. A. (2007). *Emotion regulation: Conceptual foundations*. J. James Gross (Ed.), Handbook of Emotion Regulation (s.654). New York: Guilford Press.
- Gross, J. J. (Ed.). (2013). *Handbook of emotion regulation*. Guilford Publications. (Gottman, Katz, & Hooven, 1997).
- Granic, I., & Loughheed, JP (2016). *Saldırgan çocukların olduğu zorlayıcı aile süreçlerinde kaygının rolü*. TJ Dishion ve JJ Snyder (Ed.), Zorlayıcı ilişki dinamikleri Oxford el kitabı (s. 231–248). Oxford Üniversitesi Yayınları.
- Kring, A. M., & Sloan, D. M. (Ed.). (2009). *Emotion regulation and psychopathology: A transdiagnostic approach to etiology and treatment*. New York: Guilford Press.
- Keltner, D., & Gross, J. J. (1999). Functional accounts of emotions. *Cognition & Emotion*, 13(5), 467-480. <https://doi.org/10.1080/026999399379140>
- Kılıç, Ş. (2020). *Duygu sosyalleştirme kuramdan araştırmaya*. Pegem Akademi. 1.Basım. Ankara
- Loughheed et al. (2015). Maternal regulation of child affect in externalizing and typically-developing children. *Journal of Family Psychology*, Vol 29(1), Feb 2015, 10-19
- Lawani, S. M. (1981). Bibliometrics: its theoretical foundations, methods and applications. *Libri*, 31(1), 294-315.
- O'Neal, C. R., & Magai, C. (2005). Do parents respond in different ways when children feel different emotions? The emotional context of parenting. *Development and psychopathology*, 17(2), 467–487. <https://doi.org/10.1017/s0954579405050224>
- Okuba, Y. (1997). *Bibliometric indicators and analysis of research systems: methods and examples*. OECD Science, Technology and Industry Working Papers, 1997/01, OECD Publishing.
- Pritchard, A. (1969). Statistical bibliography or bibliometrics. *Journal of Documentation*, 25, 348–349.
- Thompson R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development*, 59(2-3), 25–52.
- Van Raan, A. F. J. (2005). For your citations only? Hot topics in bibliometric analysis. *Measurement: Interdisciplinary Research and Perspectives*, 3(1), 50-62.