

Bibliometric analysis of emotion regulation in emerging adulthood: Evolution and current status

Saray Velert-Jiménez , Selene Valero-Moreno , Marián Pérez-Marín , Hugo-Andrés Sánchez-Sánchez ,
Inmaculada Montoya-Castilla 
Universitat de València (Spain)

Abstract

The study of emotion regulation has been conducted at various developmental stages. However, the literature indicates a limited focus on the study of emotion regulation in emerging adults. To better understand the evolution of research on this topic, a bibliometric analysis was conducted. The bibliographic search was performed in the Core Collection of Web of Science. The bibliometric analysis was conducted using the software Hiscite, Bibexcel, Pajek, and Vosviewer. The results indicated a total of 447 publications since the conceptualization of emerging adulthood by 1359 different authors from 41 countries and 469 institutions (1994–2025). A publication increase was observed from 2012, with the United States and Canada leading the scientific production. This bibliometric analysis contributes to the current state of this topic and its evolution, being relevant to consider aspects for future research.

Keywords: human development; bibliometrics; developmental psychology; publication analysis.

Resumen

Análisis bibliométrico de la regulación emocional en la adultez emergente: Evolución y estado actual. El estudio de la regulación emocional se ha llevado a cabo en varias etapas del desarrollo. Sin embargo, la literatura indica un enfoque limitado en el estudio de la regulación emocional en los adultos emergentes. Para comprender mejor la evolución de la investigación sobre este tema, se realizó un análisis bibliométrico. La búsqueda bibliográfica se llevó a cabo en la Core Collection de Web of Science. El análisis bibliométrico se realizó utilizando los softwares Hiscite, Bibexcel, Pajek y Vosviewer. Los resultados señalaron un total de 447 publicaciones desde la conceptualización de la adultez emergente, realizadas por 1359 autores diferentes de 41 países y 469 instituciones (1994–2025). Se observó un aumento de publicaciones desde 2012, con Estados Unidos y Canadá liderando la producción científica. Este análisis bibliométrico contribuye a la comprensión del estado actual de este tema y su evolución, siendo relevante para considerar aspectos en futuras investigaciones.

Palabras clave: desarrollo humano; bibliometría; psicología del desarrollo; análisis de tendencias.

Autor de correspondencia / Corresponding author: Selene Valero-Moreno (selene.valero@uv.es)

Citar como / Cite as: Velert-Jiménez, S., Valero-Moreno, S., Pérez-Marín, M., Sánchez-Sánchez, H. A., & Montoya-Castilla, I. (2025). Bibliometric analysis of emotion regulation in emerging adulthood: Evolution and current status. *Revista de Psicología Clínica con Niños y Adolescentes*, 12(3), 205-214. <https://doi.org/10.21134/rpcna.2025.12.3.7>

Recibido / Received: January 31, 2025

Aceptado / Accepted: April 15, 2025

Highlights

- Research on emotion regulation in emerging adulthood has grown significantly since 2012, with the United States and Canada leading scientific production.
- University samples dominate literature (representing only 20-30 % of emerging adults), highlighting the need for more inclusive sampling strategies in future research.
- Three main research clusters were identified: evolutive development and family, university student mental health, and risk factors and dysfunctional emotion regulation strategies.
- The term “young adulthood” is often incorrectly used as a synonym for “emerging adulthood”, creating conceptual imprecision in the literature.
- Despite growing recognition of emotion regulation’s importance for mental health and wellbeing in this developmental stage, research specifically focused on emerging adults remains limited.

Puntos clave

- La investigación sobre regulación emocional en adultos emergentes ha crecido significativamente desde 2012, con Estados Unidos y Canadá liderando la producción científica.
- Las muestras universitarias dominan la literatura (representando solo el 20-30 % de los adultos emergentes), destacando la necesidad de estrategias de muestreo más inclusivas en investigaciones futuras.
- Se identificaron tres grupos principales de investigación: aspectos del desarrollo evolutivo y familia, apoyo social y salud mental de estudiantes universitarios, y factores de riesgo y estrategias disfuncionales de regulación emocional.
- El término “adultez joven” se utiliza frecuentemente de manera incorrecta como sinónimo de “adultez emergente”, creando imprecisión conceptual en la literatura.
- A pesar del creciente reconocimiento de la importancia de la regulación emocional para la salud mental y el bienestar en esta etapa del desarrollo, la investigación específicamente centrada en adultos emergentes sigue siendo limitada.

The concept of emerging adulthood was introduced to highlight the developmental distinctiveness of ages 18 – 25. In the first conceptualization of the construct, changes in North America culture regarding roles in adulthood, such as delaying the completion of studies to a later age, as well as later entry into marriage and parenthood, difficulties in establishing stable employment, and pressure to cultivate a broader and peer-focused social life were identified (Arnett, 1994, 2004; Arnett & Taber, 1994). Difficulties arose in addressing when an individual ceases to be an adolescent, which led to this new stage development (Arnett, 2000). Thus, emerging adulthood was initially defined as “the period between the time a person considers himself or herself to have begun the transition to adulthood and the time when a person considers himself or herself to have completed the transition” (Arnett, 1994, pp. 223). In other countries, the age at which people get married and become parents has increased compared to the United States, extending this period of emerging adulthood up to the age of 29 (Arnett, 2004). The number of academic years spent in college or university also exerts an influence on the process of some emerging adults. The opportunity to extend education provides other opportunities for development, such as exploring one’s own identity, personal growth, and skill development (Arnett, 2016).

In the development of this theory, emerging adulthood appears as an independent life stage specific to certain cultures, so it cannot be labeled as “late adolescence” or “young adulthood”, as adulthood has not yet been attained. For this reason, Arnett (2000, 2004) proposed that this new stage has emerged in developed countries, characterized by five characteristics: possibilities/optimism - a hopeful outlook with perceived multiple life paths; identity explorations - intensive self-discovery in love, work and worldviews; self-focus - increased autonomy with fewer obligations; feeling in-between - neither adolescent

nor fully adult; and instability - frequent changes in relationships, residence, and education/work.

It is important to note that research on emerging adulthood has predominantly relied on university student samples, representing a methodological concern as only 20-30 % of emerging adults are university students (Arnett, 2016). For example, in Spain, the proportion of university students represents just 29.98 % of the total emerging adult population (Instituto Nacional de Estadística, 2021; Ministerio de Universidades, 2023).

Therefore, despite being a period of opportunities, emerging adults may also experience a sense of being caught between two stages of life and a lack of stability. This state of changes can be experienced with stress and mental health concerns (Gross, 2008; Smith et al., 2022). In fact, in the last years there has been an increased prevalence of moderate to severe depression and anxiety symptoms in emerging adults (Ettman et al., 2020; Fruehwirth et al., 2021).

Emerging adulthood is also a significant period of psychosocial development that requires special attention in the study of emotions (Woodward & Viana, 2018). In this vein, adaptive emotion regulation, defined as the application of cognitive and behavioral strategies that modulate emotional responses (Niu et al., 2023), has been related to reduced mental health problems in emerging adulthood (e.g., Augustine et al., 2022; Chen & Cheung, 2021). For example, in the case of university students emerging adults, adequate regulation of their emotions positively affects their motivation and self-efficacy, which leads to better academic performance (Kritikou & Giovazolias, 2022; Nadeem et al., 2023). Regardless of whether emerging adults pursue higher education, they are likely to enter the labor market at this stage or in adulthood.

Adequate emotion regulation is also strongly associated with better job satisfaction in adults, which translates into higher levels of well-being and lower levels of anxiety and depressive

symptoms (Buruck et al., 2016; Extremera et al., 2020). Conversely, difficulties in emotion regulation have been linked to poorer adjustment in this population (e.g., Jiao et al., 2024; Puchol-Carrión et al., 2025; Williams & McKinney, 2023).

Since the emergence of the construct, many studies have investigated different aspects of emerging adulthood. However, despite the benefits of adequate emotion regulation in several areas of emerging adults' daily lives, few investigations have examined emotion regulation and related variables in this stage of such diverse characteristics, having primarily focused on other stages (Woodward & Viana, 2018). While systematic reviews on aspects of emotion regulation in emerging adulthood exist (e.g., Gissubel et al., 2018; Rakesh et al., 2020; van de Groep et al., 2023), the overall development of research on this topic since its conceptualization remains understudied. In fact, recently, researchers have conducted bibliometric studies to gain a better understanding of the state of emerging adulthood (Tello-Navarro et al., 2024; Wider et al., 2023).

Bibliometric analyses provide insights into research trends, contributors, and geographic distribution (Donthu et al., 2021). While recent studies have mapped emerging adulthood research (Tello-Navarro et al., 2024; Wider et al., 2023), with diverse topics not always defining specific age ranges (Tan & Fauzi, 2023), other bibliometric studies have focused on emotional skills in childhood and adolescence (e.g., Bunjak et al., 2022; Chiang, 2024; Luo et al., 2024) or across all populations (e.g., Rahaman et al., 2024; Suresh et al., 2024). To our knowledge, no bibliometric analysis has examined emotion regulation specifically during emerging adulthood. This analysis is novel and necessary because it addresses the unique developmental challenges of emotion regulation during this transitional life period, which can differ significantly from childhood, adolescence and full adulthood.

Therefore, the main objective of this research is to conduct a bibliometric analysis of the most relevant papers on the relationship between emotion regulation and emerging adulthood since the concept's first appearance in 1994 (Arnett & Taber, 1994). This will be performed according to the Science Citation Index (SCI) impact factor through Web of Science (WoS, Thomson Reuters, New York, USA). WoS is considered not only the most accepted database for collecting and analyzing scientific articles, but also the best tool for examining the internalization of emerging adulthood (Maisonobe et al., 2016; Tello-Navarro et al., 2024; van Nunen et al., 2018).

Emotion regulation is an important variable that seems to have received less attention in the stage of emerging adulthood. The main contribution of this study is to provide a comprehensive overview of research on emotion regulation from its inception to the present day, highlighting the significance of this variable during this life period. Specifically, the following research questions were formulated:

- RQ1. How has the production of research on emotion regulation in emerging adulthood evolved?
- RQ2. Which countries and institutions have the greatest production in this field?
- RQ3. Which journals have published the most on this topic?
- RQ4. Which authors have published the most in this field?
- RQ5. What are the main and most relevant subtopics within emotion regulation research in emerging adulthood?

Methods

Design

Descriptive and network bibliometrics were used to analyze published research on emotion regulation in emerging adulthood from 1994 to 2025. The results were analyzed using descriptive methods, descriptive bibliometric analysis, and bibliometric mapping.

Search string and data collection

The research was conducted on March 29th, 2025, in the WoS Core Collection database on Social Science Citation Index (SSCI) and Science Citation Index Expanded (SCIE). The search strategy included the combination of the term *emerging adulthood* ("emerging adult*"), along with the term *emotion regulation*. We searched for synonyms or related meanings of emotion regulation in the American Psychological Association Thesaurus and the Medical Subject Headings (MeSH) thesaurus by the National Library of Medicine (Medical Subject Headings) ("emotion*regulation" OR "emotion*dysregulation" OR "emotion*self-regulation" OR "emotion*self regulation" OR "emotion*management") OR "affective regulation" OR "mood regulation" OR "regulation of emotion"). No filters were applied regarding language, document types, or additional source quality criteria. Based on the results of syntax, 447 results were obtained.

Procedures and data analysis

Bibliometric analysis utilized four software packages: Histcite for data cleaning and authorship analysis, Bibexcel for data extraction, Pajek for visual representation, and Vosviewer for network visualizations (García-García et al. 2015). Prior to analysis, data was cleaned by unifying duplicate university names and author surnames using HistCite and manual verification. For the bibliometric analysis, two key citation metrics were examined: Global Citation Score (GCS), representing total citations received across Web of Science, and Local Citation Score (LCS), indicating citations from within the dataset.

Results

Bibliometric indicators of the documents analyzed

Evolution of publications over time. Publications on emotion regulation in emerging adulthood began 21 years ago, in 2004 (Table 1). Among the various publications, the majority were research articles, with a total of 393 ($N_{\text{article}} = 372$, $N_{\text{early access article}} = 21$). We also found 21 reviews, 4 book chapters, 6 meeting abstracts, 1 proceedings paper, and 1 editorial material. In 2012, publications rose to 8 from 1–2 per year previously, marking it as a pivotal year alongside 2015, 2018, and 2023 in the field's evolution.

Most productive countries and institutions. Over the past 20 years, emotion regulation has been the subject of publications in 41 countries, ranging from 1 to 268 publications ($M = 12.46$, $SD = 42.16$). Ten of these countries have published six or more articles on this topic (Table 2). North America published

more on these topics, with 268 publications in the United States and 59 in Canada. Italy had the highest number of publications in this field among European countries with 24 publications. The remaining 31 countries not included in the table published five or fewer works related to the field.

Table 1. Analysis bibliometric according to publication year

Publication Year	Publications	%	LCS	GCS
2004	1	0.22	2	105
2006	1	0.22	0	34
2007	1	0.22	1	77
2008	1	0.22	0	41
2009	2	0.45	0	141
2010	2	0.45	4	117
2011	1	0.22	1	36
2012	8	1.79	6	242
2013	9	2.01	5	340
2014	13	2.91	46	916
2015	19	4.25	3	390
2016	12	2.68	6	199
2017	17	3.81	14	642
2018	26	5.82	7	503
2019	34	7.61	29	608
2020	35	7.83	4	356
2021	53	11.87	5	433
2022	69	15.44	2	184
2023	76	17.00	8	106
2024	47	10.52	2	40
2025	20	4.47	0	1

Note. LCS = Local Citation Score. GCS = Global Citation Score.

Table 2. Analysis bibliometric according to country (top ten countries, ≥ 6 works) and main institutions (≥ 8 articles)

Country	Articles	%	LCS	GCS
United States of America	268	53.2	70	3115
Canada	59	11.0	14	487
Australia	21	4.4	6	343
Italy	24	3.7	1	167
China	18	4.0	12	168
United Kingdom	15	3.3	5	460
Spain	13	2.0	3	230
Germany	12	2.0	36	553
Belgium	8	1.3	3	70
Netherlands	7	1.3	0	78
Institutions	Articles	%	LCS	GCS
University of Toronto	20	4.5	6	86
The Education University of Hong Kong	17	3.8	12	104
University of Georgia	13	2.9	11	235
University of Minnesota	13	2.9	5	200
McGill University	12	2.7	3	71
Harvard University	11	2.5	2	79
University of Illinois	11	2.5	0	32
University of Pittsburgh	9	2.0	3	269
Mississippi State University	8	1.8	2	34

Note. LCS = Local Citation Score. GCS = Global Citation Score.

Our study identified 469 different institutions among these 41 countries. Each institution published between 1 and 20 publications on these topics ($M = 1.99$, $SD = 2.21$). The institution with the highest number of publications in the field was University of Toronto ($N = 20$). Seven or fewer articles related to the field were published by the remaining institutions. Regarding the most cited institutions, those with a score of over one hundred in the Global Citation Score were University of Pittsburgh (GCS = 269), University of Georgia (GCS = 235), University of Minnesota (GCS = 200) and The Education University of Hong Kong (GCS = 104).

Most productive journals and influential authors. Although journals with a minimum of 6 articles published are indicated (Table 3), the results show that 225 journals contain articles on emotion regulation in emerging adulthood. The journal's publication rate displays a range of 1 to 26 articles published per journal ($M = 1.73$, $SD = 1.88$). "Emerging Adulthood" ($N = 26$), "Current Psychology" ($N = 15$) and "Frontiers in Psychology" ($N = 15$) were the most productive journals.

Moreover, a total of 1618 individuals appeared as authors in any publication on emotion regulation in emerging adulthood. These authors appeared in between 1 and 10 publications ($M = 1.19$, $SD = 0.65$). However, only 4 authors published more than 5 works in this area. Specifically, Cheung RYM was the author with the most publications on emotion regulation at this stage ($N = 10$). The authors with more than one hundred citations according to the Global Citation Score were Cheung RYM (GCS = 103) and Duprey EB (GCS = 101).

Table 3. Analysis bibliometric according to journal and main authors (≥ 6 works or publications)

Journal	Articles	%	LCS	GCS
Emerging Adulthood	26	5.7	2	60
Current Psychology	15	3.3	5	76
Frontiers in Psychology	15	3.1	0	38
Journal of Child and Family Studies	10	2.2	9	103
Development and Psychopathology	9	2.0	3	145
Personality and Individual Differences	9	2.0	0	77
Developmental Psychology	7	1.5	3	174
Child Abuse & Neglect	7	1.5	3	163
Frontiers in Psychiatry	7	1.5	0	15
Journal of Adolescence	7	1.5	4	86
Authors	Publications	%	LCS	GCS
Cheung RYM	10	2.3	12	103
Duprey EB	6	1.5	3	101
Handley ED	6	1.5	0	53
Snyder HR	6	1.5	1	23

Note. LCS = Local Citation Score. GCS = Global Citation Score.

Highly Cited Articles. Of the total number of papers, three were selected based on their higher number of citations per year (higher total GCS index and total LCS index greater than 0) to provide insight into average annual impact (Table 4). In particular, the article by Zimmermann and Iwanski (2014) stands out. This article examines age-related patterns from early adolescence to middle adulthood, focusing on three emotions (sadness, fear, and anger). The emerging adults in

Table 4. Analysis bibliometric according to most frequently cited articles
(≥ 10 GCSt, LCSt $\neq 0$)

Articles	GCSt	LCSt
Zimmermann, P., & Iwanski, A. (2014). Emotion regulation from early adolescence to emerging adulthood and middle adulthood: Age differences, gender differences, and emotion-specific developmental variations. <i>International Journal of Behavioral Development</i> , 38(2), 182–194. https://doi.org/10.1177/0165025413515405	46.00	3.27
Estévez, A., Jáuregui, P., Sánchez-Marcos, I., López-González, H., & Griffiths, M. D. (2017). Attachment and emotion regulation in substance addictions and behavioral addictions. <i>Journal of behavioral addictions</i> , 6(4), 534–544. https://doi.org/10.1556/2006.6.2017.086	23.88	0.38
Burleigh, T. L., Griffiths, M. D., Sumich, A., et al. (2019). A systematic review of the co-occurrence of gaming disorder and other potentially addictive behaviors. <i>Current Addiction Reports</i> , 6, 383–401. https://doi.org/10.1007/s40429-019-00279-7	10.00	0.17

Note. LCSt = Local Citation Score per year. GCSt = Local Citation Score per year.

the study were characterized by high dysregulation of anger, suppression of fear, high passivity, and avoidance of sadness. The authors report that emerging adults seek out more social support and are more likely to engage in adaptive regulation than adolescents. The second study (Estévez et al., 2017) highlights the role of emotion regulation as a predictor of different addictive behaviors in adolescents and emerging adults. In this context, the third article (Burleigh et al., 2019) is a systematic

review that examines the coexistence and relationship between gaming disorder and other addictive behaviors in adolescents and emerging adults.

Co-citation, co-author and thematic analysis

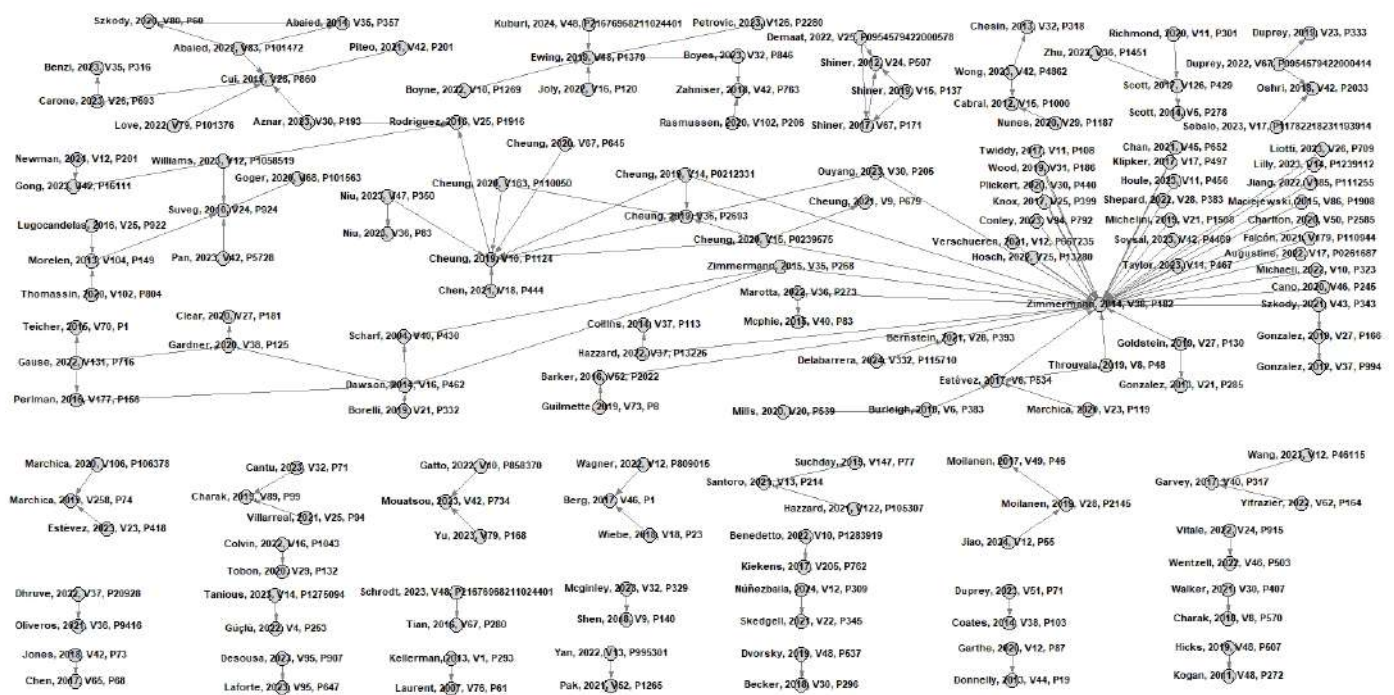
Co-citation. Figure 1 illustrates the co-citation network, which shows relationships between publications that are frequently cited together in the same reference lists. Each node represents a publication, and connecting lines indicate citation relationships, with Zimmermann and Iwanski (2014) as the most cited authors.

Co-author. Figure 2 presents the co-authorship network, displaying collaboration patterns among researchers in the field. Each node represents an author, and connecting lines indicate co-authorship relationships where researchers have published together. The study identified nine co-authorship networks, with a total of 81 authors. Networks ranged from nine to two authors.

Thematic analysis. In the thematic analysis, a total of 8070 distinct terms were identified in the titles and abstracts. The inclusion criterion was binary counting and a frequency of occurrence of ≥ 20 , which yielded 71 terms. The exclusion criteria were terms related to the methodology employed. Synonym terms were grouped, as were those that appeared in different verbal tenses, redaction, or derivative words (e.g., nonsuicidal self-injury, nonsuicidal self injury, and NSSI). Finally, 29 terms were grouped into three distinct clusters. In descending order of appearance, these terms stand out: adolescent, university student and young adulthood.

Figure 3 shows a network visualization where node size indicates term occurrence frequency and colors represent thematic clusters. The three clusters (red, green, blue) reveal conceptual relationships in emotion regulation research across emerging adults. As seen in this figure, groups with different themes and their associated terms are observed.

Figure 1. Co-citation network



The first cluster, identified as red, grouped terms related to evolutive development and family (*child, adolescent, young adulthood, parent, and family*), as well as terms related with the stage of emerging adulthood and physical health (*challenge, transition, ability, concern, need, and diabetes*). The second cluster, identified as green, grouped terms related to social support and mental health in emerging adults

attending university (*support, friend, life, resilience, mental health, mindfulness, stressor, nonsuicidal self-injury, and university student*). The third cluster, identified as blue, grouped terms related to risk factors in the stage and dysfunctional strategies of emotion regulation (*attachment, child maltreatment, violence, victimization, impulsivity, addiction, alcohol, substance use*).

Figure 2. Co-author network (≥ 375 frequencies)

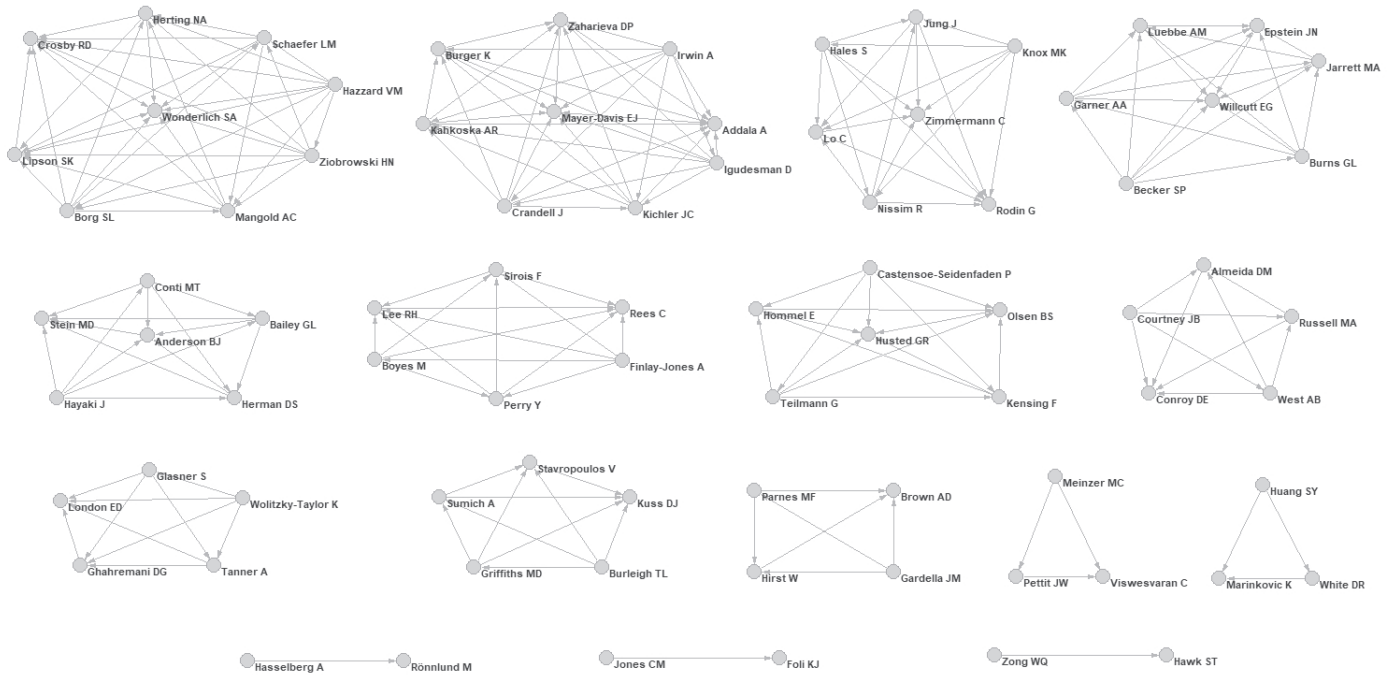


Figure 3. Network visualization of the groups of thematic analysis (occurrence ≥ 20)

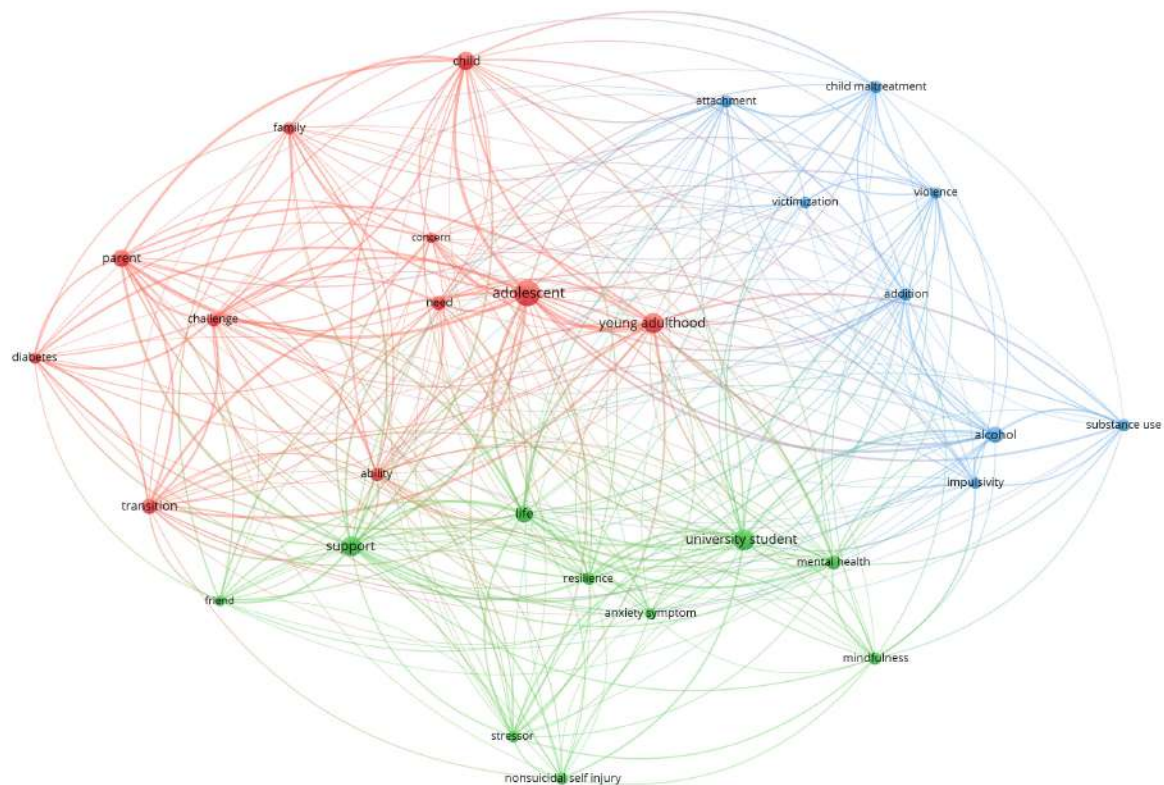
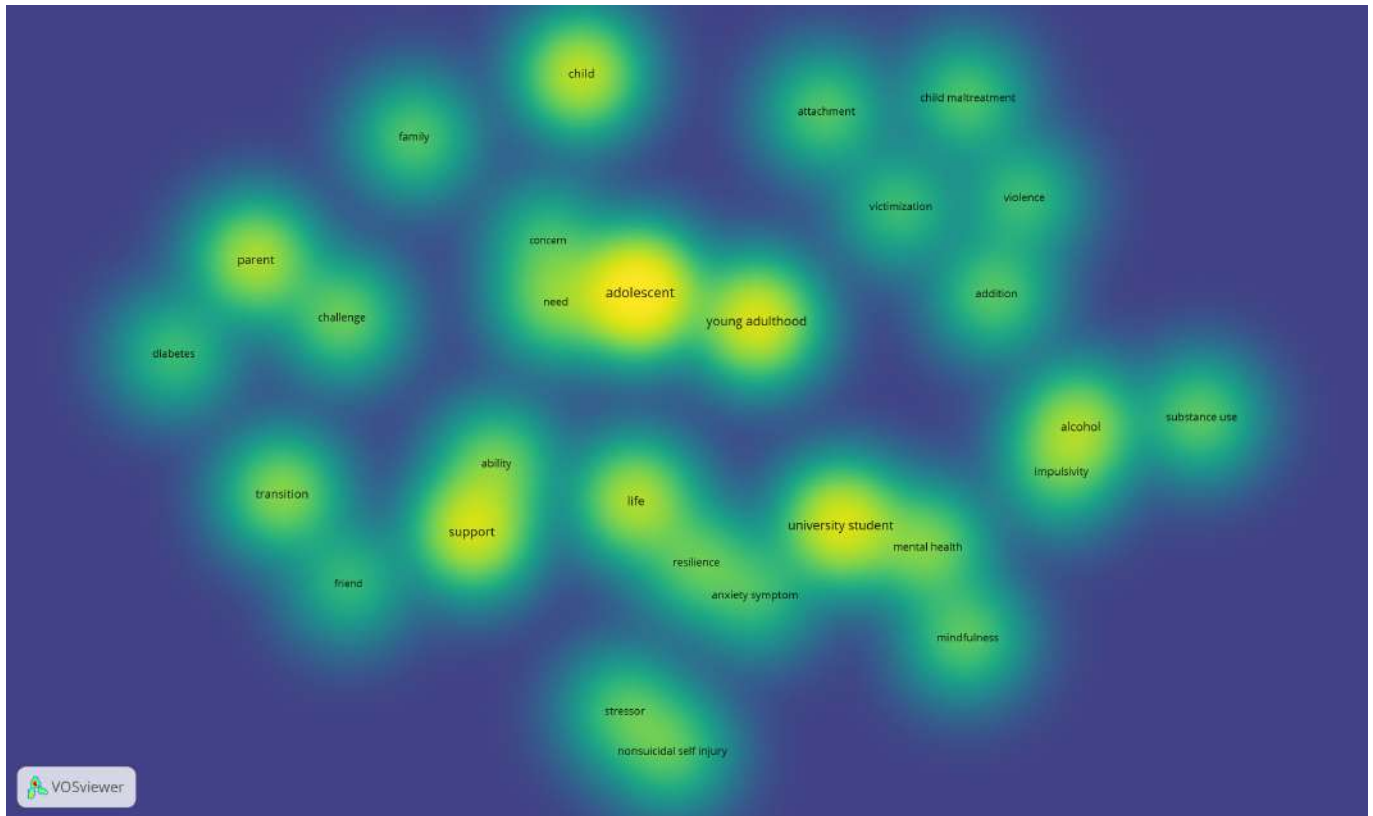


Figure 4. Density visualization of the groups of thematic analysis (occurrence ≥ 20).

A term density map (Figure 4) visualizes frequencies using color gradation from blue (low density) to yellow (high density), determined by a Gaussian kernel function based on neighboring terms' quantity and weight (van Eck & Waltman, 2010). Terms “adolescent”, “university student”, and “young adulthood” showed the highest densities.

Discussion

Despite growing recognition of emerging adulthood as a distinct developmental stage (Tello-Navarro et al., 2024), research on emotion regulation has focused primarily on other life periods (Zimmermann & Iwanski, 2014). The present study employed a bibliometric analysis to examine the current relationship between emerging adulthood and emotion regulation. The aim was to detail various aspects within research since the emergence of the emerging adulthood concept in 1994. In order to achieve this objective, the impact factor data from the Science Citation Index (SCI) via WoS (Web of Science®, Thomson Reuters, New York, USA) was employed.

The first research question was the following: RQ1. How has the production of research on emotion regulation in emerging adulthood evolved? Publications show a clear upward trend after 2012, suggesting increased recognition of emerging adulthood's distinct emotional challenges. This acceleration likely reflects growing evidence of emotion regulation's influence on academic performance, job satisfaction, and well-being in this population (Kritikou & Giovazolias, 2022; Extremera et al., 2020), alongside greater prioritization in response to rising mental health concerns among emerging

adults (Fruehwirth et al., 2021; Puchol-Carrión et al., 2025).

The second and third research questions were the following: RQ2. Which countries and institutions have the greatest production in this field?, and RQ3. Which journals have published the most on this topic? The United States of America and Canada were the most productive countries and dominated publications, with their institutions (University of Georgia, University of Toronto, McGill University) being the most productive. In addition to being two of the largest countries in the world, this is consistent with the fact that the concept of emerging adulthood was originated in the United States (Arnett & Taber, 1994) and is considered a new period of life, specifically in industrialized societies (Arnett, 2004). The journal “Emerging Adulthood” led publications, reflecting its specialized focus on ages 18 – 29, while “Current Psychology” and “Frontiers in Psychology” offered platforms for rapid dissemination across psychological domains. Although “Developmental Psychology” and “Child Abuse & Neglect” published fewer articles, their substantially higher citation counts suggest greater impact.

The fourth research question (RQ4) sought to identify the authors who have published the most in this field. The most prolific researchers are Cheung R.Y.M. (Xi'an Jiaotong-Liverpool University, previously at The Education University of Hong Kong), followed by Duprey E.B. (University of Georgia), Handley E.D. (University of Rochester), and Snyder H.R. (Brandeis University). Cheung represents China's contribution through work on mindfulness and emotion regulation, while the other researchers reflect U.S. dominance in this field, focusing on biological underpinnings, intergenerational patterns, and cognitive mechanisms respectively. Their geographic

distribution aligns with overall productivity patterns. Co-authorship analysis revealed that none of them appear to have published together. Zimmermann & Iwanski's (2014) article emerged as most frequently cited, consistent with the co-citation network findings.

The last research question (RQ5) pertained to the main and most relevant subtopics. The analysis of the terms revealed that articles on evolutive development, family, the emerging adulthood stage, and physical health (first cluster); social support and mental health in university students (second cluster); and risk factors in the stage and dysfunctional strategies of emotion regulation (third cluster) stood out. This result aligns with the most cited articles, placing Zimmermann & Iwanski (2014) in the first cluster. The articles by Estévez et al. (2017) and Burleigh et al. (2019) belong to the third cluster.

Among these clusters, the terms *adolescent*, *university student* and *young adulthood* stand out in the study of emotion regulation in emerging adulthood. As evidenced by the preceding examples (e.g., Estévez et al., 2017; Zimmermann & Iwanski, 2014), the approach to the study of emerging adulthood in relation to the adolescent stage is a common practice. The results of the second term are consistent with previous literature, which highlights the prevalence of university students in the study of emerging adulthood (Sánchez-Queija et al., 2023). This may be attributed to practical considerations, being easier to recruit large samples in academic settings. However, this is a limitation of these studies, as the results cannot be generalized from university students to the rest of the emerging adult population. The results highlight "university student" as a prominent term in the study of emotion regulation in emerging adulthood, aligning with the established prevalence rates (Instituto Nacional de Estadística, 2021; Ministerio de Universidades, 2023). This bibliometric finding reinforces our concern that 70-80 % of emerging adults remain underrepresented in research on emotion regulation (Arnett, 2016). This sampling bias potentially limits our understanding of emotional development during this life stage and suggests that findings from current literature may not generalize to the broader emerging adult population. The third term, "young adulthood", is frequently employed as a synonym for emerging adulthood. Nevertheless, Arnett, the author with the most relevant publications on this stage (Tello-Navarro et al., 2024), also defines emerging adulthood as "a period of transition between adolescence and young adulthood" (Arnett, 2004, pp. 17). "Young adulthood" implies that adulthood has been reached, whereas many emerging adults do not yet feel that they are adults. Moreover, it is a term that is used with very different age ranges, unlike the concept of emerging adulthood. It's better to apply the term to people in their thirties (Arnett, 2004). Considering the numerous publications on emotion regulation and emerging adulthood, the use of "young adulthood" to define the population in this stage can suggest other limitations in the study of the emotion regulation in emerging adulthood.

The analysis provided insights into various aspects including the distribution of articles across the co-authorship networks, citation patterns, and the recurring keywords that have garnered significant attention among researchers. This study provides researchers and professionals a foundation for exploring emotion regulation in emerging adulthood. By

offering comprehensive information, this analysis contributes to a better understanding of the trajectory of research in this field. In order to enhance future research on emotion regulation and other variables in this population, it is recommended to also promote research on non-student emerging adults and to avoid using the term "young adults" as a synonym for emerging adults.

Strengths and limitations

This study's main advantage is using bibliometric analysis to assess research on emotion regulation in emerging adulthood, providing objective quantification of publication trends and thematic evolution. Limitations include reliance solely on Web of Science, excluding potentially relevant publications from other databases like Scopus that offer broader coverage of European and social science journals. A significant number of studies on emerging adults may be employing terms such as "college students" or other inaccurate terms such as "young adulthood" to refer to this stage, which may result in their exclusion from our results in WoS. These limitations might lead to an incomplete grasp of the latest trends and discoveries in this research field.

Conclusions

A bibliometric analysis was conducted on a total of 447 publications. Regarding the studies indexed in Web of Science, this bibliometric analysis highlights the still limited number of studies focused on emotion regulation during emerging adulthood. Despite the growing interest in recent years, there is a clear need to stimulate research in this crucial developmental stage. This study provides a valuable foundation for future researchers by addressing the current state of research in this field. By further addressing emotion regulation in emerging adulthood, researchers can contribute to a deeper understanding of emotion management in this life stage.

Furthermore, this research underscores the need for diversifying study samples beyond the university setting, as a significant proportion of emerging adults may not be represented in these studies. Promoting research that includes non-university emerging adults will provide a more comprehensive and representative picture of this population. From a theoretical perspective, the findings suggest that researchers must better differentiate emerging adulthood as a distinct developmental period with unique emotional challenges and regulatory processes. The prevalence of terms like "young adulthood" in literature indicates conceptual imprecision that may hinder theoretical advancement in understanding emotion regulation during this specific life stage. Practically, these results suggest that clinicians should develop interventions tailored to the unique emotional challenges facing emerging adults, considering their transitional status and varied life circumstances beyond academic settings. Ultimately, this bibliometric analysis provides researchers with a roadmap to develop more targeted investigations and interventions addressing the specific needs of emotion regulation in this life stage, thereby advancing knowledge that can improve emerging adults' well-being during their transition to full adulthood.

Conflict of interests

The authors of this work declare that there is no conflict of interest.

Funding

This paper is part of the R&D project PID2020-114425RB-C21, funded by MCIN/AEI/10.13039/501100011033/. This work was also supported by the Ministry of Science, Innovation and Universities under Grant FPU20/05797 and Grant CIGRIS/2022/168 CPI-23-277.

References

- Arnett, J. J. (1994). Are college students adults? Their conceptions of the transition to adulthood. *Journal of Adult Development*, 1(4), 213–224. <https://doi.org/10.1007/BF02277582>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>
- Arnett, J. J. (2004). *Emerging Adulthood: The Winding Road from the Late Teens Through the Twenties*. Oxford University Press.
- Arnett, J. J. (2016). College students as emerging adults. *Emerging Adulthood*, 4(3), 219–222. <https://doi.org/10.1177/2167696815587422>
- Arnett, J. J., & Taber, S. (1994). Adolescence terminable and interminable: When does adolescence end? *Journal of Youth and Adolescence*, 23(5), 517–537. <https://doi.org/10.1007/BF01537734>
- Augustine, D. A., Koss, K. J., Smith, E. P., & Kogan, S. M. (2022). The influence of family cohesion on self-regulation and anxiety problems among African American emerging adults. *PLOS ONE*, 17(1), e0261687. <https://doi.org/10.1371/journal.pone.0261687>
- Bunjak, A., Černe, M., & Schölly, E. L. (2022). Exploring the past, present, and future of the mindfulness field: A multitechnique bibliometric review. *Frontiers in Psychology*, 13, Article 792599. <https://doi.org/10.3389/fpsyg.2022.792599>
- Burleigh, T. L., Griffiths, M. D., Sumich, A., Stavropoulos, V., & Kuss, D. J. (2019). A systematic review of the co-occurrence of gaming disorder and other potentially addictive behaviors. *Current Addiction Reports*, 6(4), 383–401. <https://doi.org/10.1007/s40429-019-00279-7>
- Buruck, G., Dörfel, D., Kugler, J., & Brom, S. S. (2016). Enhancing well-being at work: The role of emotion regulation skills as personal resources. *Journal of Occupational Health Psychology*, 21(4), 480–493. <https://doi.org/10.1037/ocp0000023>
- Chen, M., & Cheung, R. Y. M. (2021). Testing interdependent self-construal as a moderator between mindfulness, emotion regulation, and psychological health among emerging adults. *International Journal of Environmental Research and Public Health*, 18(2), 444. <https://doi.org/10.3390/ijerph18020444>
- Chiang, C. (2024). Knowledge mapping of the influence of the COVID-19 pandemic on trends in research regarding early childhood social-emotional development. *Journal of Research in Education Sciences*, 69(2), 1–41. [https://doi.org/10.6209/JORIES.202406_69\(2\).0001](https://doi.org/10.6209/JORIES.202406_69(2).0001)
- 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>
- Estévez, A., Jáuregui, P., Sánchez-Marcos, I., López-González, H., & Griffiths, M. D. (2017). Attachment and emotion regulation in substance addictions and behavioral addictions. *Journal of Behavioral Addictions*, 6(4), 534–544. <https://doi.org/10.1556/2006.6.2017.086>
- Ettman, C. K., Abdalla, S. M., Cohen, G. H., Sampson, L., Vivier, P. M., & Galea, S. (2020). Prevalence of depression symptoms in US adults before and during the COVID-19 pandemic. *JAMA Network Open*, 3(9), e2019686. <https://doi.org/10.1001/jamanetworkopen.2020.19686>
- Extremiera, N., Mérida-López, S., Quintana-Orts, C., & Rey, L. (2020). On the association between job dissatisfaction and employee's mental health problems: Does emotional regulation ability buffer the link? *Personality and Individual Differences*, 155, 109710. <https://doi.org/10.1016/j.paid.2019.109710>
- Fruehwirth, J. C., Biswas, S., & Perreira, K. M. (2021). The Covid-19 pandemic and mental health of first-year college students: Examining the effect of Covid-19 stressors using longitudinal data. *PLOS ONE*, 16(3), e0247999. <https://doi.org/10.1371/journal.pone.0247999>
- García-García, A., Pardo-Ibáñez, A., Ferrer, A., Peset, F., & González-Moreno, L. M. (2015). Herramientas de análisis de datos bibliográficos y construcción de mapas de conocimiento: Bibexcel y Pajek. *BiD: Textos Universitaris de Biblioteconomia i Documentació*, 34. <https://doi.org/10.1344/BiD2015.34.22>
- Gross, J. J. (2008). Emotion regulation. En M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of emotions* (3rd ed., pp. 497–512). The Guilford Press.
- Instituto Nacional de Estadística. (2021). *Población residente por fecha, sexo y edad*. <https://www.ine.es/jaxiT3/Datos.htm?t=56934>
- Jiao, C., Cui, M., & Fincham, F. D. (2024). Overparenting, loneliness, and social anxiety in emerging adulthood: the mediating role of emotion regulation. *Emerging Adulthood*, 12(1), 55–65. <https://doi.org/10.1177/21676968231215878>
- Kritikou, M., & Giovazolias, T. (2022). Emotion regulation, academic buoyancy, and academic adjustment of university students within a self-determination theory framework: A systematic review. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1057697>
- Luo, J., Yang, X., Li, H., Fan, L., Chen, X., Li, J., & Song, T. (2024). A bibliometric analysis and visualization of non-suicidal self-injury in adolescents. *Frontiers in Psychiatry*, 15, Article 1457191. <https://doi.org/10.3389/fpsyg.2024.1457191>
- Maisonobe, M., Grossetti, M., Milard, B., Eckert, D., & Jégou, L. (2016). L'évolution mondiale des réseaux de collaborations scientifiques entre villes: Des échelles multiples. *Revue Française de Sociologie*, Vol. 57(3), 417–441. <https://doi.org/10.3917/rfs.573.0417>
- Ministerio de Universidades. (2023). *Estadística de Estudiantes Universitarios (EEU). Sistema Integrado de Información Universitaria (SIIU)*. https://www.universidades.gob.es/wp-content/uploads/2023/06/Principales-resultados_EEU_2022-23.pdf
- Nadeem, A., Umer, F., & Anwar, M. J. (2023). Emotion regulation as predictor of academic performance in university students. *Journal of Professional & Applied Psychology*, 4(1), 20–33. <https://doi.org/10.52053/jpap.v4i1.157>
- Niu, X., Taylor, M. M., Wicks, J. J., Fassett-Carman, A. N., Moser, A. D., Neilson, C., Peterson, E. C., Kaiser, R. H., & Snyder, H. R. (2023). Longitudinal relations between emotion regulation and internalizing symptoms in emerging adults during the Covid-19 pandemic. *Cognitive Therapy and Research*, 47(3), 350–366. <https://doi.org/10.1007/s10608-023-10366-9>

- Puchol-Carrión, M., Schoeps, K., De la Barrera, U., Gil-Gómez, J. A., & Montoya-Castilla, I. (2025). Context-related impact of positive and negative affect on emotion regulation: A mobile-conducted EMA study. *Revista de Psicología Clínica con Niños y Adolescentes*, 12(1), 14-20. doi: 10.21134/rpcna.2025.12.1.5
- Rakesh, D., Allen, N. B., & Whittle, S. (2020). Balancing act: Neural correlates of affect dysregulation in youth depression and substance use – A systematic review of functional neuroimaging studies. *Developmental Cognitive Neuroscience*, 42, Article 100775. <https://doi.org/10.1016/j.dcn.2020.100775>
- Rahaman, S., Govil, P., Khan, D., & Jevremov, T. D. (2024). A 30-year bibliometric assessment and visualisation of emotion regulation research: Applying network analysis and cluster analysis. *Information Discovery and delivery*, 52(1), 85–100. <https://doi.org/10.1108/IDD-11-2022-0110>
- Ribera-Asensi, O., Valero-Moreno, S., & Pérez-Marín, M. (2024). A twenty-year bibliometric analysis on the relationship between complicated grief and attachment. *Current Psychology*, 43(17), 15522–15531. <https://doi.org/10.1007/s12144-023-05518-9>
- Sánchez-Queija, I., Pineda-Balbuena, Á., Díez, M., & Parra, Á. (2023). El papel mediador de la fuerza del compromiso entre los estilos de procesamiento de la identidad y el bienestar de jóvenes adultos emergentes. *Anales de Psicología*, 39(2), 265–272. <https://doi.org/10.6018/analesps.475911>
- Smith, K. M., Cobb, K. F., Reed-Fitzke, K., Ferraro, A. J., Duncan, J. M., & Lucier-Greer, M. (2022). Connections between parental reciprocity and emerging adult depressive symptoms and loneliness: The role of peer social support. *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement*, 54(1), 52–61. <https://doi.org/10.1037/cbs0000284>
- Suresh, K., Dar, A. A., Prasad, L. N., & Fernandes, D. (2024). Mindfulness to mental health: Exploring bibliometric pathways via metacognition, rumination, and emotion regulation. *Journal of Theoretical Social Psychology*, 2024, Article 5867754. <https://doi.org/10.1155/jts5/5867754>
- Tan, C. N.-L., & Fauzi, M. A. (2023). Examining the interplay between resilience, mental health and young adults: Insights from bibliometric analysis on historical, contemporary and future trends. *Mental Health and Social Inclusion*. <https://doi.org/10.1108/MHSI-09-2023-0092>
- Tello-Navarro, F., Bastías, L. S., & Hernández-González, O. (2024). Evolution and research trends about emerging adulthood: A bibliometric analysis. *Emerging Adulthood*, 12(2), 252–263. <https://doi.org/10.1177/21676968231222431>
- van de Groep, I. H., Bos, M. G. N., Popma, A., Crone, E. A., & Jansen, L. M. C. (2023). A neurocognitive model of early onset persistent and desistant antisocial behavior in early adulthood. *Frontiers in Human Neuroscience*, 17. <https://doi.org/10.3389/fnhum.2023.1100277>
- 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>
- van Nunen, K., Li, J., Reniers, G., & Ponnet, K. (2018). Bibliometric analysis of safety culture research. *Safety Science*, 108, 248–258. <https://doi.org/10.1016/j.ssci.2017.08.011>
- Wider, W., Fauzi, M. A., Gan, S. W., Yap, C. C., Akmal Bin Ahmad Khadri, M. W., & Maidin, S. S. (2023). A bibliometric analysis of emerging adulthood in the context of higher education institutions: A psychological perspective. *Heliyon*, 9(6), e16988. <https://doi.org/10.1016/j.heliyon.2023.e16988>
- Williams, A. R., & McKinney, C. (2023). Indirect effects of parental psychological control on emerging adult psychological problems. *Journal of Child and Family Studies*. <https://doi.org/10.1007/s10826-023-02623-y>
- Woodward, E. C., & Viana, A. G. (2018). The desire to emulate parental emotional strategies and its relation to emotion dysregulation among emerging adults. *Emotional and Behavioural Difficulties*, 23(3), 245–253. <https://doi.org/10.1080/13632752.2018.1455648>
- Zimmermann, P., & Iwanski, A. (2014). Emotion regulation from early adolescence to emerging adulthood and middle adulthood. *International Journal of Behavioral Development*, 38(2), 182–194. <https://doi.org/10.1177/0165025413515405>