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# The Evolution of Research on School Attendance: A Bibliometric Review of Scholarly Output 

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#### Abstract

School attendance problems are of great research interest, which is reflected in the increase of scientific publications. This increase hinders the adequate follow-up and updating of the scientific community on the subject. The aim of the present bibliometric study lies in the review of the scientific literature published on school attendance problems during 2014-2021. A bibliographic search and analysis of scientific articles was performed, obtaining a definitive sample of 700 documents. Results were extracted and analyzed for the following indicators: temporal productivity, productivity by authors, co-authorship index, productivity by journals, use of topics, research areas addressed and types of samples used. The number of publications indicates a progressive increase of interest on the subject, which has not corresponded to the creation of a specific journal on the subject. There is also evidence of the need for consensus on the topics to be used; the preference for knowing the factors associated with school attendance problems over other areas of research; and the generalized use of community samples as opposed to more specific ones. In conclusion, the characteristics researched on school attendance problems are presented; knowledge that will facilitate the establishment of intervention processes applicable to different contexts and realities.


Keywords: Bibliometrics, school absenteeism, school attendance, school attendance problems, school refusal.
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## Introduction

School attendance problems have long been recognized as a critical developmental challenge and limiting factor for children and adolescents (Kearney, 2021). A wide array of academic deficiencies, internalizing behavior problems such as anxiety, depression, social isolation, as well as externalizing behavior problems such as elevated alcohol, tobacco, and drug use have been connected to this problematic (Kearney et al., 2023; Rahman et al., 2023). School attendance problems are the main focus of interest shown by researchers in the field of Education. This relevance is reflected in the increase of scientific publications on the subject, the creation of international networks for school attendance and other legal and educational measures. Thus, in 2018, the International Network for School Attendance (INSA) was established; a global network whose main objectives are to promote attendance, reduce absenteeism and solve school attendance problems (Heyne et al., 2020).

This situation fosters the constant creation of new knowledge but makes it difficult for it to reach the scientific community. Therefore, this justifies the need to carry out bibliometric reviews that show the state of the art in research and analyse different indexes in order to facilitate the assimilation of the new knowledge generated. The aim of this bibliometric study is to analyse the evolution of school attendance problems literature from 2014 to 2021 through the Web of Science (WOS) and Scopus databases.

## Literature Review

## Importance of School Attendance

School attendance, that which is maintained by attending the educational centre in which an educational action is carried out, is an indispensable factor that makes the teaching-learning process itself possible. Moreover, it favours the social,

[^0]academic, and personal development of students (Ansari et al., 2020). School absence implies the loss of the enjoyment of a right and the breach of a duty (Cruz Orozco, 2020).

Maintaining adequate attendance is essential to facilitate the achievement of the different school objectives, not only those focused-on learning, especially when it is known that purely academic content does not respond to the learning needs of a large part of the student body (Morentin-Encina, 2021). In addition, the objectives focused on coexisting with peers, to the relationships with the rest of the members of the educational community and to the acquisition of habits and competences that mark the social, personal, and emotional development of students.
School attendance, absenteeism or school refusal are terms that may overlap and be used in a confusing way. At the present time, despite being an area that has been researched for more than a century by different disciplines (Kearney et al., 2020), it is still necessary to reach a consensus on the definition and delimitation of both school attendance and the different factors that influence it (Kearney et al., 2019a, 2019b).
Furthermore, school attendance problems (SAP) also lack the required agreement in the scientific community. Nevertheless, there are common features and characteristics that are referred to in several studies to define SAP, which usually refer to different types of absences (e.g., tardiness or truancy) or to general difficulties in attending or arriving at school (Kearney et al., 2019a).

Although a multitude of terms are used to describe the type of SAP, the main terms that are most widely accepted in the scientific literature have been identified (Heyne et al., 2019). School refusal, non-attendance caused by emotional problems; truancy, absence that is not allowed and unexcused; school withdrawal, absence caused by the student's own parents or guardians; and school exclusion, attendance problems whose origin lies in the educational institution.

The prevalence of school absence is not comparable across countries or time periods as it lacks international consensus on its definition and figures to be used (Gren Landell, 2021). Additionally, the literature highlights the scarcity of schools assessing the effectiveness of the collection and validation of the attendance data gathered (Gentle-Genitty et al., 2020). Moreover, studies report shortcomings in the way absences are registered by teaching staff, and the low correlation between data self-reported by students and those collected by the authorities (Gren Landell, 2021). In the same line, Pflug and Schneider (2016) underline that the data collection on school absence in research is often based on the filling out surveys by students, parents, or teachers on the school premises. Thus, data are likely to be underestimated as some students are not present, those attending may respond in a socially desirable way in the presence of their teachers and/or there may be disparity between the data provided by teachers, family, and students themselves. Nevertheless, there are attempts to find out the actual prevalence in different countries by asking the same questions to similar student populations (Keppens \& Spruyt, 2018) or by using a comparison of measures taken by different professionals (Chu et al., 2019).

## The Role of Bibliometrics

Bibliometrics, understood as the application of mathematical and statistical methods to books and other media, aims to quantify the processes of written communication (Groos \& Pritchard, 1969). At the same time, as Gorraiz (2021) states, most of the media seek novelty and originality, publishing articles with aspects that have never been dealt with before, and therefore bibliometrics must be prevented from becoming a "dead" discipline if it is not used and should be used responsibly. It should not be forgotten that bibliometric review allows us to handle large amounts of information, thereby helping us to make decisions regarding new lines of research (Kussainova et al., 2024).

Despite the strengths and contributions of this type of study, only one bibliometric study on school refusal has been found during the period from 2004 to 2013 (García-Fernández et al., 2016). The results obtained indicated a progressive growth in the levels of scientific productivity and highlight the interest in studies aimed at the treatment of school refusal and analysis of associated risk factors. Currently, a follow-up study to this work is needed to understand the evolution that research on school refusal has followed during the last decade, serving as a frame of reference for future research.

Considering the aforementioned limitations, this paper aims to provide the state of the art in scientific research on school attendance problems. It complements, at the same time, the only known bibliometric review that focus on study, but which covered the period 2004-2013 (García-Fernández et al., 2016). In recent years, great efforts have been made in this field to reach a consensus at research and intervention level on ways of acting, that need to be reviewed to identify what has been done so far and what are the future projections in this field of research.

## Methodology

## Unit of Analysis

The examined information was obtained from a documentary sample of 700 articles obtained from the analysis of various indicators: temporal productivity, productivity by journals and by authors, co-authorship index, topics used, research areas and types of samples.

## Instruments

In order to obtain the documentary sample, a bibliographic search was carried out in the Web of Science and Scopus. These databases were selected for their interdisciplinary nature and high recognition.

## Procedure

The bibliographic search in the databases was carried out in the first half of February 2022. The search strategy was defined as: ("school refusal" or "truancy" or "school absenteeism" or "school withdrawal" or "school exclusion"). In the Web of Science, the main collection was used, and the search was limited to the field "subject," which includes the contents of the title, abstract, author keywords and keywords plus. In Scopus the delimitation was made to "title, abstract, keyword."

The specific time frame was established as the years between 2014 and 2021, both inclusive. This work aims to be a continuation of a previous bibliometric study that addressed the period from 2004 to 2013 (García-Fernández et al., 2016). In a first documentary sample, a total of 2893 documents were obtained, 1397 corresponding to the search in Web of Science and 1496 in Scopus. In both cases, it was decided to filter the results obtained according to the type of document, limiting it to "article", and language, opting for documents written in "English" and/or "Spanish". Hence, the sample was reduced to a total of 2268 articles, 1103 from the Web of Science search and 1165 from Scopus. By reading the title, abstract and keywords, the next step focused on the detection and elimination of duplications, i.e., the same research indexed in both databases consulted. Likewise, articles that could not be accessed for their analysis and those that did not address the subject matter of the study were eliminated. In addition, 25 articles were included, taken from other sources given the considered relevance of both the research itself and the authors who authored it. In short, the final documentary sample of 700 articles was obtained. Figure 1 shows the flowchart which explains in detail this search, filtering, and selection process.

## Data Analysis

An ex post facto retrospective study is presented according to the classification of Montero and León (2007). In this type of investigation, past occurrences are examined to understand a current state (Kerlinger, 1964). Descriptive and frequency analyses were used to identify and systematise the different variables. For the calculation of the co-authorship index, the publication analysed was attributed to each author, assigning one point to each of them. The statistical programme used was SPSS 24.


Figure 1. Flow Diagram of the Studies Retrieved Through the Selection Process

## Results

## Temporal Productivity

Data reflect a gradual increase in the number of publications of articles whose content deals with school attendance problems (see Table 1). This increase in the interest shown by researchers is evidenced by an $80.88 \%$ increase in publications, taking as a reference those in the last year analysed, 2021, compared to the first, 2014.

There are two cycles that can be distinguished, with a marked turning point in 2018, a period that marks a change of trend. In the first four-year period, 2014-2017, the data found is stable (although 2015 represents a small decrease, this is modulated again in the following two years). The second four-year period studied (2018-2021) reflects a constant and progressive increase in published research.

Table 1. Temporal Distribution of the Analysed Articles ( $N=700$ )

| Year | $\mathbf{N}$ | $\mathbf{\%}$ |
| :---: | :---: | :---: |
| 2014 | 68 | 9,71 |
| 2015 | 52 | 7,43 |
| 2016 | 68 | 9,71 |
| 2017 | 72 | 10,29 |
| 2018 | 94 | 13,43 |
| 2019 | 105 | 15,00 |
| 2020 | 118 | 16,86 |
| 2021 | 123 | 17,57 |

## Productivity by Authors

The productivity of the authors is reflected in 2713 different researchers. Particularly, according to the classification of types of authors based on their published output in a field of research (Crane, 1969), a large majority, 88.61\%, are considered transient authors (only one published work); 9.99\% are aspiring authors ( 2 to 4 published works); 1\% can be defined as moderate producers (between 5 and 9 publications); and, finally, $0.41 \%$ are major producers (more than 10 publications).
Among the group of major producers, 11 authors in total, Gonzálvez ( 44 articles), Sanmartín ( 36 articles), García Fernández ( 33 articles) and Vicent ( 31 articles) stand out (see Table 2). This group of researchers is characterised by its focus on the term school refusal in its different dimensions. Gottfried ( 28 articles) complements this list, as he is an author who focuses his research on various risk factors associated with school attendance problems among students.

Table 2. Most Productive Authors

| Author | Affiliation | Number of articles | H-index (in WOS) |
| :--- | :--- | :---: | :---: |
| Gonzálvez, Carolina | University of Alicante, Spain. | 44 | 14 |
| Sanmartín, Ricardo | University of Alicante, Spain. | 36 | 12 |
| García Fernández, José M. | University of Alicante, Spain. | 33 | 22 |
| Vicent, María | University of Alicante, Spain. | 31 | 14 |
| Gottfried, Michael A. | University of Pennsylvania, USA | 28 | 18 |
| Inglés, Cándido J. | University Miguel Hernández, Elche, Spain | 24 | 22 |
| Heyne, David | University of Leiden, The Netherlands. | 20 | 22 |
| Kearney, Christopher A. | University of Nevada, | 19 | 27 |
|  | Las Vegas, USA. | 11 |  |
| Mazerolle, Lorraine | University of Queensland, Australia. | 10 | 24 |
| Fernández-Sogorb, Aitana | University of Alicante, Spain. | 10 | 5 |
| Kirksey, J. Jacob | University of Texas, USA. |  | 6 |

## Co-Authorship Index

Publications with 5 or more authors are the most representative, accounting for $33 \%$ of the total ( $\mathrm{N}=231$ ); these are followed by articles with 2 authors ( $\mathrm{N}=154$ ), which account for $22 \%$; publications with 3 and 4 authors maintain a similar representation, with $16.26 \%(\mathrm{~N}=114)$ and $15.71 \%(\mathrm{~N}=110)$ respectively; finally, individual authorship of an article is the least significant, accounting for $13 \%(\mathrm{~N}=91)$ of the publications analysed.

## Methodologies Used

It has been found that 112 articles (representing $16 \%$ of the total) are theoretical studies (e.g., literature reviews, metaanalyses, analysis of the evolution of government policies). The remaining 588 articles ( $84 \%$ ) are considered empirical,
including both quantitative and qualitative research, which have used various types of samples: students, parents, professionals, institutions, intervention programs, etc.

## Productivity by Journals and Impact Factor

The articles found were published in a total of 383 journals. Among these, 254 journals published a single article, 67 published 2 articles, 56 journals published between 3 and 9 articles, and 6 journals published 10 or more studies. Among the journals with the highest number of published papers (see Table 3), Frontiers in Psychology, Children and Youth Services Review and Emotional and Behavioural Difficulties are particularly noteworthy.
Regarding the impact factor, the sample of documents has been analyzed based on the ranking Journal Citations Reports (Web of Science). Of the 700 articles reviewed, 131 have been published in journals located in the first quartile, 187 in the second quartile, 86 articles in the third quartile and 93 in the fourth quartile. These results show that $71 \%$ of the articles analyzed have been published in impact factor journals.

Table 3. Journals and Media Production

| Author | Number of articles |
| :--- | :---: |
| Frontiers in Psychology | 20 |
| Children and Youth Services Review | 17 |
| Emotional and Behavioural Difficulties | 16 |
| Journal of School Health | 13 |
| Journal of Education for Students Placed at Risk | 11 |
| Cognitive and Behavioral Practice | 10 |

## Topics Used in the Research

The analysis of the documentary sample revealed different topics used by the researchers beyond those delimited in the search term of this study. Therefore, both the terms used for this search (school refusal, truancy, school absenteeism, school withdrawal and school exclusion) and other different terms were found.

As shown in Table 4, a significant part of the research opts to use as the term under study one of the forms of school attendance (school attendance, school-going, school absenteeism, absenteeism, school absences and chronic absence), representing $46.27 \%$ of the total. This is followed by two topics whose representativeness continues to be relevant: truancy, with $21.66 \%$, and school refusal, with $17.16 \%$. In third place comes the term school exclusion (including suspensions and school suspensions), which is represented by $9.99 \%$. Next come topics whose use is significantly lower. Thus, the results are complemented by the use of the term dropout (including drop-out), with $2.67 \%$, and school withdrawal, with a residual representation of $0.56 \%$. In addition, research using some other alternative topic (extended non-attendance, tardiness, school leaving, medical absence, excused/unexcused absence, school reluctance, educational neglect, psychological truancy, school phobia) is represented by a total of $1.69 \%$ (see Table 5).
It should be noted that, for the calculation of this indicator, one point was assigned for each term used throughout the articles. Hence, research that addressed two different topics was counted twice, once for each different term used. Thus, even though the final documentary sample consisted of the aforementioned 700 articles, the totals counted in this section amount to 711 items.

Table 4. Topics Used in Research and their Representativeness ( $N=711$ )

| Topic | $\mathbf{N}$ | $\mathbf{\%}$ |
| :--- | :---: | :---: |
| School attendance | 329 | 46,27 |
| Truancy | 154 | 21,66 |
| School refusal | 122 | 17,16 |
| School exclusion | 71 | 9,99 |
| Dropout | 19 | 2,67 |
| Alternative topic | 12 | 1,69 |
| School withdrawal | 4 | 0,56 |

Table 5. Alternative Topics Used ( $N=12$ )

| Alternative term | Conceptual delimitation | Publication |
| :--- | :--- | :--- |
| School phobia | Deals with students' absence, with their families' <br> knowledge, due to fear of going to school. <br> This factor is part of a continuum that fluctuates from <br> being unpunctual to complete non-attendance. | Hasan (2021) <br> Bitsika et al. (2022) <br> Tardiness |
| School leaving | Alternative topic to dropout, it assesses the educational <br> decision-making of youth and how it may contribute to <br> school dropout. | Van Praag et al. (2020) |
| Educational neglect | It focuses on understanding educational neglect and how <br> it differs from other types of school dropout and | Van Wert et al. (2018) |
| absenteeism. |  |  |

## Research Areas

Each of the assessed research focuses on specific areas of SAP, targeting the acquisition of new knowledge in 5 areas.
The area of conceptual delimitation includes those articles that offer a greater understanding of the type of SAP studied: it includes studies on definitions, reflections on the current state, prevalence and profile of the sample that presents it. The areas of assessment instruments and treatments are focused on research that seeks to assess the presence of or intervention on any type of SAP. The areas of risk factors and associated disorders include studies that correlate these elements with some type of SAP.

In this way, it is known that those studies that focus on the association of SAP with other factors are more prevalent ( $60.9 \%$ representativeness). Interest continues to be relevant regarding the different types of intervention (20.96\%) and, with a lower representativeness, those studies relating to conceptual delimitation (12.38\%). The list is completed by articles whose objectives focus on the evaluation of SAP assessment instruments (4.22\%) and those that deal with the association of this problem with other types of disorders (1.55\%).

For the presentation of the results (see Table 6), it should be considered that in the calculation of this indicator, one point was assigned for each term used throughout the studies. This increases the number of publications counted from 700 to 711.

Table 6. Research Areas Addressed in the Studies

|  | Conceptual <br> delimitation | Assessment <br> instruments |  | Treatment and <br> Intervention |  | Associated <br> risk factors |  |  | Associated <br> disorders | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | $\%$ | N | $\%$ | N | $\%$ | N | $\%$ | N | $\%$ | N | $\%$ |
| Total | 88 | $12,38 \%$ | 30 | $4,22 \%$ | 149 | $20,96 \%$ | 433 | $60,9 \%$ | 11 | $1,55 \%$ | 711 | 100 |

Each topic used has its own characteristics regarding the areas under study (see Table 7). Thus, the terms school attendance and truancy focus to a greater extent on the study of associated factors. School refusal reveals as a peculiarity a greater interest than other topics in the knowledge and use of assessment instruments. School exclusion focuses on the areas of conceptual delimitation, intervention, and the study of associated factors. Dropout shows a major interest in the study of associated factors, and the alternative topics focus especially on their conceptual delimitation. As for the term school withdrawal, the numbers are insufficient to be able to draw relevant conclusions.

Table 7. Research Areas Related to the Main Topic Addressed in the Studies

| Topic | Conceptual delimitation |  | Assessment instruments |  | $\begin{gathered} \text { Treatment } \\ \text { and } \\ \text { Intervention } \\ \hline \end{gathered}$ |  | Associated risk factors |  | Associated disorders |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| School attendance | 26 | 7,90\% | 10 | 3,04\% | 57 | 17,32\% | 234 | 71,12\% | 2 | 0,61\% | 329 | 100 |
| Truancy | 15 | 9,74\% | 2 | 1,30\% | 35 | 22,73\% | 98 | 63,64\% | 4 | 2,58\% | 154 | 100 |
| School refusal | 20 | 16,39\% | 16 | 13,11\% | 28 | 22,95\% | 54 | 44,26\% | 4 | 3,28\% | 122 | 100 |
| School exclusion | 17 | 23,94\% | 2 | 2,82\% | 22 | 30,99\% | 29 | 40,85\% | 1 | 1,41\% | 71 | 100 |
| Dropout | 1 | 5,26\% | 0 | 0\% | 3 | 15,79\% | 15 | 78,95\% | 0 | 0\% | 19 | 100 |
| Alternative topic | 7 | 58,33\% | 0 | 0\% | 3 | 25\% | 2 | 16,66\% | 0 | 0\% | 12 | 100 |
| School withdrawal | 2 | 50\% | 0 | 0\% | 1 | 25\% | 1 | 25\% | 0 | 0\% | 4 | 100 |

## Type of Sample Used in the Studies

From the studies examined, four groups of publications have been identified, establishing the type of sample used as a differentiating measure. Research with a community sample includes those that make use of a population that shares the characteristics of a group or community, whether local, national, or international. This group includes articles with samples of families, professionals (both from education and other fields) and youth (without detailing specific characteristics of the latter). Likewise, studies whose samples combine some of the above populations are also included. In addition, a community sample is obtained from results on "administrative data" (see Lee et al., 2020 as an example).
The groups of specific youth refer to those studies that incorporate a population in that age group and that share some distinguishing feature. Therefore, specific characteristics include some of the types of SAP, belonging to groups at risk of exclusion and suffering from psychophysiological disorders.
This list is complemented by research that does not make use of any type of population (no sample) and those that feature a case study (these include the study of an individual person or a centre/institution as long as the authors describe the article as such).

From this classification (see Table 8), it can be seen that community samples have a greater presence in the study of school attendance, representing $54 \%$ of the total sample analysed. Studies involving a specific population of young people account for $27.29 \%$ of the total sample, followed by those that do not use any sample, which account for $16.28 \%$. Finally, case studies are the least common, accounting for $2.43 \%$.

Table 8. Type of Sample Used in the Published Studies

| Type of sample |  | TOTAL <br> (N) | TOTAL <br> (N/\%) |
| :--- | :--- | :---: | :---: |
| Community | Youth | 301 | 378 |
|  | Families | 23 | $54 \%$ |
|  | Education professionals | 31 |  |
|  | Other professionals | 4 |  |
|  | Two or more of the abovementioned combined | 19 |  |
| Specific youth | Show Truancy | 38 | 191 |
|  | Show School Refusal | 29 | $27,29 \%$ |
|  | Show School Exclusion | 10 |  |
|  | Show unspecified absenteeism | 7 |  |
|  | At risk of exclusion | 40 |  |
|  | With psychophysiological disorders | 67 |  |
| No sample | Review of studies | 38 | 114 |
|  | Education policies | 14 | $16,28 \%$ |
|  | Others | 62 |  |
| Case study | Case study | 17 | 17 |
|  |  | 700 | 700 |
|  |  | $100 \%$ | $100 \%$ |

## Discussion

The aim of this study was to determine the state of the art of research regarding school attendance problems by means of a bibliometric analysis of the scientific production published between 2014 and 2021. The results obtained
complement those found in the review by García Fernández et al. (2016), the only prior review known to address a similar topic. Both studies confirm the significant increase in interest in this field.

Articles that did not address the subject matter of the research were discarded. Publications that related any variable to academic performance, established in a non-specific way and that did not determine school attendance as part of the initial objectives, were left out of the selection. In the same way, although the results of the studies indicate aspects of school attendance, those that use school absences to determine the status of other variables were not considered (as occurs, for example, in the study of the existence of a virus in a certain city or region). Likewise, research that associated academic performance with a certain variable (dysmenorrhoea, hygiene, substance use, etc.) without specifying school attendance in their object of study, although they do so in the results of the research, was not considered. Moreover, we excluded research that sought to find out the prevalence and associated factors of a certain topic but did not specify school attendance as one of the variables to be studied, despite mentioning it in the research results.

In short, for the current research a documentary sample of 700 articles was used, doubling that obtained in the previous review ( 345 articles found in García-Fernández et al., 2016). All the time periods assessed represent a progressive increase in the publication of research. For this study, an increase of $80.88 \%$ was obtained between the first year consulted (2014) and the last one (2021). This increase is highly significant between 2004, the first year studied in the review by García Fernández and colleagues, and 2021, the last year assessed in the present study, with the number of articles published increasing 6 times between these two years.
Additionally, it should be noted that these results must be understood in the context of the social and health situation resulting from the emergence of the coronavirus responsible for COVID-19. It may therefore be worth studying whether the number of articles published in 2020 and 2021 has been affected by this situation.
The considerable interest in this field of action favours the presence of many researchers who are involved in the study and subsequent publication of scientific articles. It is confirmed that slightly more than four out of five researchers are considered, in Crane's terms (1969), transient authors since they have published just one paper whose subject matter deals with SAPs. Aspiring authors (2-4 published papers) account for a large part of the remaining researchers. Despite their relevance, both moderate and major producers are very under-represented, both accounting for less than $1 \%$ of the total.

Among these major producers, 11 in total, 5 belong to the Department of Developmental Psychology and Didactics of the University of Alicante. This team mainly deals with the topic of school refusal in its different dimensions. Another of the most prolific representatives, Michael A. Gottfried, focuses much of his research on various risk factors that may influence the index of school absenteeism. This group is completed by three more authors whose relevance in the field of SAP is clearly demonstrated: David Heyne, Christopher A. Kearney, and Lorraine Mazerolle, who have the highest Hirsch index, accrediting a greater apparent scientific impact. In addition, it is noteworthy that only Christopher A. Kearney remains in the list of the most prolific authors in both reviews.
The co-authorship index in the publication of articles brings us closer to the degree of collaboration between the authors, understood as "the social process by which two or more researchers work together, sharing their intellectual and material resources to produce new scientific knowledge" (Aleixandre-Benavent et al., 2017, p.108). Thus, publications with more than 5 authors are the most common and single-authored publications the least frequent. Among the publications produced by 2,3 , or 4 researchers, those signed by two people are slightly more representative.
As mentioned by García Fernández et al. (2016), there is no specific media that deals with SAP, a situation that remains today. Given this limitation, efforts must be combined to create specialized journals in this field of knowledge, as supported by the International Network for School Attendance among its initiatives (Heyne et al., 2020). Although this reality continues, there is evidence of a significant increase in the number of journals that publish articles related to the subject ( $115 \%$ between the two periods), with the main areas of study being the same: Psychology and Education. Within the variety of journals, most of them (66.32\%) published a single study during the period under review. From the remaining journals, $17.49 \%$ have published two articles, $14.62 \%$ have published between 3 and 9 studies, and only $1.57 \%$ are those that achieve greater specialisation by publishing 10 or more studies.
The three journals that stand out for the highest number of publications focus on specific areas of knowledge. Frontiers in Psychology is framed within the Psychological Sciences; Children and Youth Services Review, in a multidisciplinary way, is aimed at children, young people, and disadvantaged and/or vulnerable families; and Emotional and Behavioural Difficulties focuses on the areas of Psychiatry and Mental Health, Clinical Psychology, and Developmental and Educational Psychology. The following journals, Journal of School Health, Journal of Education for Students Placed at Risk, and Cognitive and Behavioral Practice, slightly less representative but still relevant, focus respectively on the health and well-being of young people of school age, on the education of students placed at risk and on the theoretical and practical perspective of Cognitive Behavioural Therapies. The latter journal is the only media that appears in the list of the most prolific in both reviews. although efforts must be combined to obtain specialized journals in this field of knowledge, as indicated by the International Network for School Attendance.

A novel aspect of the present study lies in the variety of topics used by the researchers, a diversity which, as reported by Kearney et al. (2019a), reflects the lack of consensus in the scientific literature. Thus, the terms most used by the authors are mostly focused on some of the ways of describing attendance at school (school attendance, school-going, school absenteeism, absenteeism, school absences, chronic absences). Whereas the previous topics account for $46.27 \%$, the two other terms that have a lower relevance are truancy (21.66\%) and school refusal (17.16\%). The other terms used, school exclusion (which includes suspensions and school suspension, with 9.99\%) and school withdrawal (0.56\%), have a lower impact and are therefore of less interest. Furthermore, the use of alternative topics to those used in the present systematic search of the databases was also found. Even though the sum of all of them accounts for $4.36 \%$, just one specific term, dropout (including drop-out), accounts for $2.67 \%$. Other topics found with very low proportions (together they account for $1.69 \%$ ) are: extended non-attendance, tardiness, school leaving, medical absence, excused/unexcused absence, school reluctance, educational neglect, psychological truancy, school phobia.

In this regard, it was observed that the terms school refusal, school exclusion, and school attendance show a significant increase in interest, while truancy remains stable over time. Regarding the topic dropout, a greater interest is found in the years 2018 and 2019, but the results are low in the rest of the periods. These lower representations remain stable both for school withdrawal and for the rest of the alternative topics found.

Determining the different areas of research addressed in each article, and how they appear together with the different terms used, is another of the relevant aspects investigated. Five different areas have been detected in which the contents of the different articles can be grouped: conceptual delimitation, assessment instruments, treatment, and intervention, associated factors and associated disorders. Hence, most research has been found to study the multiple factors associated with SAP, a situation that especially characterises those that deal with the topics of school attendance and truancy.

It is beyond the scope of this research to list the associated factors. However, it is worth emphasising the difference that has been observed between published articles with samples from countries with low socioeconomic status and those with samples from high-income countries. It is striking how the concern of researchers from developing countries concentrates on studying factors that can be considered basic needs, such as food insecurity (Baiden et al., 2020), access to quality water (Komarulzaman et al., 2019), hand hygiene (Mbakaya et al., 2019) or the menstruation in girls (Garg et al., 2021), the latter being a factor that accounts for a large amount of research. In contrast, factors addressed by research from developed country samples ignore these needs to focus on a myriad of secondary factors. Gubbels et al. (2019) present a meta-analysis in which the aim is to synthesise the available evidence on risk factors for absenteeism and dropout, thus allowing for a broadening of the knowledge on the issue.

On the other hand, the study of types of intervention, which appears especially in those articles that focus on the topic of school exclusion, and the conceptual delimitation of terms, which is especially observed in studies that address alternative topics, acquire relevance, yet with a much lower prevalence.

On a secondary level comes the study of assessment instruments, which is more relevant in the studies that focus on the topic of school refusal.
In addition, the relationship of SAP with other types of disorders, regardless of the main topic used, shows a residual prevalence.

The population used in each study is an essential factor in drawing conclusions from the resulting data. The study of this index represents an innovative factor as it is not known to have been assessed by any publication prior to the one presented in these lines. Specifically, four different samples have been found: community, youth with their own characteristics, samples that do not involve people and case studies.

From this distinction, the results underline that community samples (especially those that include young people) show the greatest interest for authors, followed, with lower representation, by those focused on youths who share some kind of characteristic of their own and those studies that do not involve people in their sample. Case studies show very low results.

## Conclusion

The main objective of this study was to determine the current situation of scientific research published in relation to school attendance. To this end, the sample obtained for the 2014-2021 period was used to complement the results found in the only known prior review on this subject (García-Fernández et al., 2016).

Various factors and indexes have been identified and analysed, finding a growing interest in the study of school attendance and the different types of problems that influence it.
There is a need to reach consensus in the scientific community on the conceptualisation and delimitation of terms, which will allow for a generalisable identification of associated factors. Ultimately, it will ensure the establishment of intervention processes applicable to different contexts and realities, thereby favouring the achievement of the ultimate desired objective, the reduction/elimination of school absenteeism.

Furthermore, it becomes evident that the authors prefer knowing the association of some type of factor with school attendance, making use of a community sample formed by youths who do not share any characteristics and whose main topic consisted in some type of school attendance. Thus, the importance of knowing these factors has been pointed out, as they can be the object of prevention, early attention, and intervention, but it has been observed that these objectives are not usually addressed in research. Finally, the results detailed in this article provide attractive and necessary future lines of research.

## Recommendations

There are several lines of research that can be pursued. As a priority, it is necessary to address the social and family context as one of the main factors that cause SAP. Although the topic of school withdrawal can be considered complex to study (families that do not show adequate concern for the proper development of their children are unlikely to facilitate the processes of research), its approach is highly relevant in the delimitation and further intervention of SAP and the resulting consequences.
Likewise, it is evident that the different authors are very interested in the study of associated factors, but the in-depth reading of these articles does not usually offer possible interventions for the situations that are detected, with a large part of the studies focusing on detection but lacking the preventive and/or reactive actions required.

At the same time, it is still pending to deepen the study of those students who, despite attending school, show a behaviour of total passivity. These situations are caused by attitudes of school disaffection and rejection of school processes for various reasons (García Gracia \& Razeto Pavez, 2019) and interest has been observed in one of the alternative topics found: psychological truancy (Matela et al., 2014).

Lastly, telematic training, which is becoming more and more present in education systems, generates new situations that were unknown until a few years ago. There may be simultaneous teaching-learning processes in which teachers and students share virtual classrooms or deferred processes in which students set their own pace in a process defined by the teaching team. These situations force us to address, among many other aspects, how school attendance itself is valued and which factors may be associated with it.

## Limitations

Finally, it is important to mention some of the limitations of the present study. The method of obtaining articles, chosen by reading the title, abstract and keywords, may have left out of the final sample documents that may meet the object of evaluation. In the same way, two databases were used which, despite being relevant in the area under research, may not be sufficient to cover all the articles published. In addition, certain topics as keywords were chosen for the search, the ones considered most representative of SAP, but different results could have been found if other terms had been used. Thus, for future explorations, the inclusion of the topics dropout and drop-out as search terms should be considered, as well as the use of specific tools for bibliometric analysis.

On the other hand, there have been references to the review by García Fernández et al. (2016), comparing their results with those obtained in the present research. It should be considered that that review had its own strategy (topics mostly used at that time) different to that used at current time, and used 4 databases (WOS, Scopus, SSCI and Eric) to obtain the documentary sample.

## Data availability

The data that support the findings of this study are available on request from the corresponding author.

## Conflict of interest

The authors have no conflicts of interest to declare. All co-authors have seen and agree with the contents of the manuscript and there is no financial interest to report.

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## Authorship Contribution Statement

Martínez-Torres: Conceptualization, design, data acquisition, analysis, statistical analysis, writing. Gonzálvez: Conceptualization, design, data analysis / interpretation, statistical analysis, editing/reviewing, securing funding, supervision. Fernández-Sogorb: Editing/reviewing, supervision, critical revision of manuscript, final approval. GarcíaFernández: Editing/reviewing, supervision, critical revision of manuscript, final approval.

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