# Emerging Trends in Factors Associated with Behavioral Difficulties in Boys and Girls

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| KEYWORDS | ABSTRACT |
|---|---|
| *Risk factors*<br>*Psychosocial*<br>*Behavior*<br>*Depression*<br>*Hyperactivity* | *To carry out a bibliographic review of the factors associated with behavioral difficulties in children, but there are global data on these variables. Purpose: The purpose of this study was to review the literature on the factors associated with behavioral difficulties in boys and girls to identify the most influential countries, authors, magazines and institutions, their structures and research directions. Design: This review is based on bibliometric and network analysis of literature published in Scopus and Web of Science. A total of 110 scientifically mapped articles were found in this area.* |

# 1. Introduction

Today the study of behavior has become one of the most controversial topics of high interest and impact in society due to the great variety of data obtained from different experiments, tests and study techniques. The purpose of this study is to interpret and generate new knowledge through different previously published studies in order to provide a more holistic view of the factors associated with behavioral difficulties in children (Castillo Samamiego & León Armijos, 2019).

For Guerra Romero (2018) the behavior of children is a topic of great relevance in the field of psychology and education. Each child is unique and presents a variety of behaviors, some may show tranquility at the time of going through a difficulty while others may resort to physical aggressions to their peers, being the environment that can be considered normal within their development. However, there are cases in which behavioral difficulties arise that may interfere with their well-being and their ability to adapt to their social and academic environment (Bermeo Suarez, 2019). These behavioral difficulties can manifest themselves in different ways, such as aggressiveness, impulsivity, inattention, non-compliance with rules or difficulty regulating emotions (Navarrete Garcia, 2019). These problematic behaviors can not only affect the child's academic performance, but also his or her relationships with others, self-esteem and overall quality of life (Jimenez Rodriguez, 2020).

For Ponce Lopez (2020), risk factors for behavioral difficulties in children are variables or circumstances that increase the likelihood that a child will develop behavioral difficulties. These factors can act individually or in combination, and their presence increases the child's vulnerability to manifest problematic behaviors.

The factors that have a greater relevance and cause a predisposition in children to develop some alteration in their behavior or conduct have been extensively studied (Ramirez Cedillo, 2022). From the research conducted it can be concluded that children with a higher probability of developing behavioral disorders are those who present the following characteristics: difficult temperament (low adaptability), early signs of aggressive behavior, academic difficulties, poor school performance, family history of antisocial behavior (parents and/or grandparents), inconsistent parenting style, neglectful parenting style, harsh discipline, physical or sexual abuse, domestic violence, lack of supervision and some family psychopathy.

According to Hidalgo Torres (2018) in the search for understanding and addressing behavioral difficulties in children, it is essential to consider the associated factors that may influence their appearance and development. These factors can be of diverse nature and act individually or in combination, generating a significant impact on the child's behavior.

For Arboleda Garcia (2020) mentions that biological factors play an important role in behavioral difficulties. Some children may have a genetic predisposition to present certain behavioral disorders, such as attention deficit hyperactivity disorder (ADHD) or autism spectrum disorders (ASD). (Maldonado Vargas, 2019). In addition, alterations in brain development, neurotransmitter imbalance and other biological variables may contribute to the emergence of problematic behaviors (Montero Pilozo, 2020).

On the other hand, environmental factors also have a significant impact on children's behavior. The family environment, parenting style, the quality of affective relationships, exposure to stressful or traumatic situations, the presence of family conflicts or the lack of clear limits and rules are just some of the environmental elements that can influence the development of behavioral difficulties.

For Alvarado Monje (2019), There are different ways in which behavioral difficulties can manifest themselves in the family setting. Some common examples include non-compliance with rules and limits established by parents, frequent tantrums, outbursts of anger, physical or verbal aggression towards family members, lack of respect, lack of responsibility for tasks and obligations, difficulty following instructions, and resistance to authority. According to (Caicedo Delgado, 2021)These behavioral difficulties can have a significant impact on family dynamics. Parents may experience high levels of stress, frustration, worry and emotional exhaustion when trying to deal with their children's problematic behaviors. (Caicedo Delgado, 2021).. The relationship between parents may also be affected, as tensions and conflicts may arise in how to address and manage behavioral difficulties (Morales Figueroa, 2021)..

Likewise, social and cultural factors should not be ignored. The interactions of the child with his or her peers, the influence of the media and society in general, gender expectations and roles, discrimination or social exclusion can play a relevant role in the appearance and maintenance of problematic behaviors... (Flores Guevara, 2022). According to Santillan Fajardo (2020), in addition to these factors, it is also important to consider the individual characteristics of the child, such as his or her temperament, social skills, level of cognitive and emotional development, self-concept and ability to regulate emotions. These individual characteristics interact with the aforementioned factors, giving rise to a unique profile that influences behavioral difficulties (Paredes Solis, 2021).

Behavioral difficulties in children, whether excessive or deficient, are or may be warning lights that reveal other related psychological problems, or, on the contrary, may be a source of difficulty or conflict in other areas. (Segarra Campos, 2021). Early intervention is essential to achieve a positive development and prognosis (Martinez Calderon, 2019).

## 2. Development of the investigation

For the present study, a systematic literature review was conducted to analyze the structure and development of scientific fields and disciplines, residing in analysis of scientific databases using methods that match scientific information. This analysis allows the generation of relationships in order to structure the information in maps to analyze the graphical theory and visualize the conceptual part.

A search was performed in Scopus and Web of Science to find the desired articles. In addition, operators such as (AND, OR) were used to make the combinations of keywords, as well.

To perform the search, the descriptors were in Spanish and their equivalents in English to obtain greater access to articles in both languages. Several combinations using logical operators were also used to optimize the search. The filters available in the selected databases and search engines were: type of record, date and exclusion of citations. Search with keywords "difficulties"; "behavior" and "children" in a time interval from 2018 to 2023.

In addition, the Rstudio cloud tool was used for the selection of relevant articles, where a CSV file of the search performed in the Scopus and Web of Science platform was downloaded.

A first selection of articles was made using the pre-established inclusion and exclusion criteria. The inclusion criteria were that the articles had to be written in English and have as their main objective the relationship between metacognition and learning in higher education.

The selection of these databases allows us to analyze the behavior of scientific production in this field of knowledge and how their records are combined. Table 1 shows the criteria used for the search.

**Table 1.** *Search criteria.*

| Database | Scopus | Web of Science |
|---|---|---|
| Time Spaces | 2018 - 2023 | |
| Consultation period | April 30, 2023 | |
| Type of documents | Articles, conference papers | |
| Type of magazine | Any type of | |
| Search field | Title, abstract, keywords | |
| Search terms | " difficulties "; "behavior " and "children". | |
| Results | 905 | 287 |
| Total result | 1.192 | |

After initial screening, each selected article was read in its entirety and relevant data on the objectives, methods, and results of each study were extracted. Finally, a critical analysis of the literature identifies common trends and findings among the reviewed studies.

Bibliometric analysis was deployed with Bibliometrix, which is an open source tool developed in R that has been used for mapping academic literature. Bibliometrix was chosen because of its compatibility with different databases, its wide range of analytical functions, its free access and, above all, because it facilitates trend typing. Version 4.2 of the program was used. It is a method used in

bibliometrics that makes it possible to visualize the entire knowledge network of a topic and facilitates the identification of research subfields.

## 3. Results

In analyzing trends and developments, we compared the number of articles published in this field registered in databases such as WoS and Scopus from 2018 to 2023 and calculated the total production. To do this, records are added to each database and duplicates are removed, and the results of this process are summarized. Table 2 lists the ten journals with the highest number of publications in the field, as well as quality and impact indicators such as Journal Citations Report (JCR), Scimago Journal Rank (SJR) and the SJR h-index.

The journal with the highest number of records is Child abuse and neglect, followed by the Journal of European child and adolescent psychiatry. An important component is the origin of the journals, they are from the United States and the United Kingdom, which demonstrates the prominence of this country with regard to risk factors in children.

**Table 2.** *Top ten journals with the highest number of publications in the area.*

| Magazine | Articles | Quartile |
|---|---|---|
| Child abuse and neglect | 45 | Q1 |
| European child and adolescent psychiatry | 31 | Q1 |
| Journal of affective disorders | 27 | Q1 |
| Frontiers in psychology | 21 | Q2 |
| Autism | 20 | Q1 |
| Research in developmental disabilities | 20 | Q2 |
| Development and psychopathology | 17 | Q1 |
| Children and youth services review | 16 | Q2 |
| Journal of the american academy of child and adolescent psychiatry. | 15 | Q1 |
| Journal of child and family studies | 13 | Q2 |

Lists the authors with the highest number of publications in the mentioned area and the quality and impact indicators according to the most relevant journals, such as the Journal Citations Report (JCR), the Scimago Journal Rank (SJR) and the h-index registered in SJR. This criterion is used to determine the most influential authors on a specific topic. The 10 most cited authors were selected, and among them, 1) Wamser-Nanney, Rachel, 2) Waldie, Karen, 3) Morton, Susan, 4) Peterson, Elizabeth and 5) Humphreys, Kathryn stand out as the top five.

**Table 3.** *Top ten authors with the greatest contribution to the area.*

| Author | Scopus | | |
|---|---|---|---|
| | # Publication | # Subpoenas | Index h |
| Wamser-Nanney, Rachel | 11 | 503 | 11 |
| Waldie, Karen | 7 | 3,021 | 31 |
| Morton, Susan | 6 | 3,609 | 28 |
| Peterson, Elizabeth | 6 | 2,405 | 24 |
| Humphreys, Kathryn Leigh | 5 | 5,825 | 37 |
| Apter, Alan | 5 | 16,536 | 64 |
| Arseneault, Louise | 5 | 25,112 | 77 |
| Barker, Edward Dylan | 5 | 6,405 | 46 |
| Campbell, Claudia | 4 | 51 | 5 |
| Carr, Vaughan | 4 | 25,066 | 68 |

Table 4 presents the ten institutions with the highest number of publications. University College London is the institution that contributes the most with 31 papers, followed by the University of Melbourne with 24 papers respectively. It can be seen that two of the ten institutions in this list are from the United Kingdom and Australia, which contribute to scientific production in the area.

**Table 4.** *Top ten institutions with the highest number of registered publications.*

| Institution | Number of publications | Country |
|---|---|---|
| University College London | 31 | United Kingdom |
| University of Melbourne | 24 | Australia |
| King's College London | 23 | United Kingdom |
| University of Montreal | 20 | Canada |
| Murdoch Children's Research Institute | 19 | Australia |
| Columbia University | 16 | United States |
| Inserm | 14 | France |
| Harvard Medical School | 13 | United States |
| Pennsylvania State University | 13 | United States |
| The University of Auckland | 13 | New Zealand |

From the general characteristics that aims to know the emerging trends of the factors associated with behavioral difficulties of boys and girls, making the comparison of research results of the work "factors associated with behavioral problems in preschoolers." conducted by Gamboa Piquet et al. (2018) establish that children present behavior with greater risk around the environment in which they develop, many of them live in family systems where the compartments follow the same line of aggression where in the learning process present greater variability; the family, educators guide the acquisition of appropriate behavior.

In another of the research conducted in relation to the study variables carried out in 2020 presented as a result that the factors associated with the behavior of children are their individual characteristics,

i.e., their temperament, skills and social environment, these individual characteristics interact with the factors mentioned above, resulting in a unique profile that influences the behavioral difficulties. (Paredes Solis, 2021).

Regarding the comparison of results between different studies, it is evident that social constructionism in behavior establishes the evidence of biological, psychological and social factors that influence emotional regulation, which can generate difficulties in the establishment of self-concept when exposed to the environment as a social factor. (Gómez Tabares & Rojas González, 2021).

## 4. Conclusions

The factors associated with children's behavior, the highest percentage of which are found within the family environment, are related to inadequate patterns of education and upbringing, showing extremes ranging from overprotection in which strict rules must be followed, to others where total permissibility does not establish limits, rules, values and principles, leaving the adolescent in a context that exposes him/her to the risk of encouraging unhealthy behaviors. It is important to mention that social factors influence the behavior of children because they hinder the skills they have to adapt to the environment, considering that many present signs of aggressive behavior at an early age, and their consequences are reflected in the spaces of individual development, i.e., in their academic activities and social environments. A significant fact that is associated with the behavior of children is the genetic part, which can also influence the development of different problems that will manifest themselves at this stage of life.

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