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ARTIGOS

# Prevalence of Behavioural and emotional problems in Brazilian school-age children and adolescents

*Prevalência de problemas comportamentais e emocionais em crianças e adolescentes brasileiros em idade escolar*

*Prevalencia de problemas conductuales y emocionales en niños y adolescentes brasileños en edad escolar*

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**Abstract:** This study aims to describe the prevalence trends of behavior problems in the Brazilian school population (aged 6 to 18 years) by using 6,826 protocols of the Child Behavior Checklist 6-18. This numerically expressive general survey was based on raw data referring to internalizing and externalizing behaviors by age and sex. When the total sample was evinced, boys had higher clinical results in Aggressive Behavior and Withdrawal/Depression and girls, a higher proportion of clinical cases in Somatic Complaints. When stratified by age group, Middle Childhood showed lower scores than adolescents in Internalizing Syndromes, early adolescence had more clinical cases in the Anxious/Depressed Syndrome, and late adolescence contained more cases in the Withdrawn/Depressed and Somatic Complaints Syndromes. This study ignored intervening variables, only describing the trends in a diverse universe of children and adolescents evaluated by the Child Behavior Checklist.

**Keywords:** Mental health; Childhood; Adolescence; Child Behavior Checklist; Human development.

**Resumo:** Este estudo tem como objetivo descrever as tendências de prevalência de problemas de comportamento na população escolar brasileira (de 6 a 18 anos) por meio de 6.826 protocolos do Child Behavior Checklist 6-18. Este levantamento geral numericamente expressivo foi baseado em dados brutos referentes a comportamentos internalizantes e externalizantes por idade e sexo. Quando evidenciada a amostra total, os meninos apresentaram maiores resultados clínicos em Comportamento Agressivo e Retraimento/Depressão e as meninas, maior proporção de casos clínicos em Queixas Somáticas. Quando estratificada por faixa etária, a Meia Infância apresentou pontuações mais baixas que os adolescentes nas Síndromes Internalizantes, a adolescência inicial apresentou mais casos clínicos na Síndrome Ansiosa/Deprimida e a adolescência final apresentou mais casos nas Síndromes Retraído/Deprimido e Queixas Somáticas. Este estudo ignorou variáveis intervenientes, descrevendo apenas as tendências em um universo diversificado de crianças e adolescentes avaliados pelo Child Behavior Checklist.

**Palavras-chave:** Saúde mental; Infância; Adolescência; Lista de Verificação do Comportamento Infantil; Desenvolvimento humano.

**Resumen:** Este estudio tiene como objetivo describir las tendencias de prevalencia de problemas de conducta en la población escolar brasileña (de 6 a 18 años) mediante el uso de 6.826 protocolos del Child Behavior Checklist 6-18. Esta encuesta general numéricamente expresiva se basó en datos brutos referentes a conductas internalizantes y externalizantes por edad y sexo. Cuando se evidenció la muestra total, los niños tuvieron mayores resultados clínicos en Comportamiento Agresivo y Abstinencia/Depresión y las niñas, mayor proporción de casos clínicos en Quejas Somáticas. Cuando se estratificó por grupo de edad,

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la Infancia Media mostró puntuaciones más bajas que los adolescentes en los Síndromes Internalizantes, la adolescencia temprana tuvo más casos clínicos en el Síndrome Ansioso/Deprimido, y la adolescencia tardía tuvo más casos en los Síndromes de Retraimiento/Deprimido y de Quejas Somáticas. Este estudio ignoró las variables intermedias y solo describió las tendencias en un universo diverso de niños y adolescentes evaluados por la Lista de Comportamiento Infantil.
**Palabras clave:** Salud mental; Infancia; Adolescencia; Lista de verificación del comportamiento infantil; Desarrollo humano.

Childhood and adolescence are considered fundamental in human development as adverse experiences and low-quality interactions in these phases can negatively affect global development and produce unfavorable outcomes in adulthood (Souza, Araujo & Jacinto, 2022). Mental disorders, sometimes present among children and adolescents, can impair their healthy development, causing subsequent negative effects, especially when symptoms and impairments are not the focus of no appropriate treatment and/or are associated with risk behaviors (Danielson *et al.*, 2021).

At the beginning of the second decade of the 21st century, one in seven young people in the world, aged 10 to 19 years, suffered from a mental disorder, representing 13% of the global burden of disease in this age group (World Health Organization, 2020). Previously, it was estimated that from 10% to 20% of adolescents experienced mental health problems (World Health Organization, 2019), and that mental and substance use disorders represented the sixth leading cause of disease burden among children and youth worldwide (Erskine et al., 2015).

In 2020, in the United States of America, from 10.1% to 24.3% of schoolchildren met the criteria for an Externalizing Problem, with Oppositional Defiant Disorder and Attention-Deficit/Hyperactivity Disorder configuring the disorders with the highest prevalence. At the time, from 8.7% to 14.7% of U.S. schoolchildren met the criteria for Internalizing Problems, the most common of which were Anxiety Disorder (7.9%–11.2%) and Depressive Disorder (1.5%–3.7%) (Danielson *et al.*, 2021).

Still regarding the beginning of this century, Ormel *et al.* (2015) observed that mood and behavior disorders were less prevalent but more severe and that anxiety disorders occurred more commonly but less severely in Dutch adolescents, of which about one in four adolescents met the criteria for an anxiety disorder. In Syria, a country ravaged by wars, 61.29% of children and adolescents (aged from 5 to 17 years) have faced behavioral difficulties, with Internalizing Problems being the most prevalent (Alsharif *et al.*, 2024).

Several studies evaluating behavioral and emotional problems of children and adolescents from several countries have used symptom-related scales, such as the Child Behavior Checklist for Ages 6-18 (CBCL) (Achenbach & Rescorla, 2001) to survey indicators of behavioral and emotional problems (Becker, Ramsey & Byars, 2015; McDaniel *et al.*, 2023).

The multinational study by Ivanova *et al.* (2007) included 30 societies and was one of the largest global epidemiological surveys using the CBCL/6-18. Although Brazil did not participate in this survey, subsequent investigations (Rocha *et al.*, 2013) applied compatible methodologies in different regions of the country, allowing comparisons with international indicators. The results showed that, despite intercultural variations, prevalence patterns remain structurally consistent, with similarities in internalising and externalising dimensions.

Others Brazilian studies have also used the CBCL to assess Internalizing Problems and Externalizing Problems in children and adolescents under different contexts (Araújo & Oliveira-Monteiro, 2020; Santos & Oliveira-Monteiro, 2022; Pacheco, Muzzolon & Dória, 2022; Schoen, 2024; Valverde, Vitalle, Cintra & Schoen, 2012).

Despite growing attention to children's mental health, Brazil lacks recent, systematic, and representative national epidemiological data on behavioural and emotional problems in children and adolescents. The available studies (Bordin, Mari & Caieiro, 1995; Borsa & Nunes, 2011; Borsa, Souza & Bandeira, 2011; Emerich, Rocha, Silvares & Gonçalves, 2012; Roama-Alves & Amorim, 2023)

are regional, methodologically heterogeneous or outdated, making international comparisons and the formulation of evidence-based public policies difficult.

The present study seeks to fill this gap by providing detailed national epidemiological data, stratified by age and gender, using one of the most robust assessment tools internationally: the CBCL/6-18. Thus, this study aims to describe the prevalence trends of behavior problems in the Brazilian school population (aged from 6 to 18 years) by using the CBCL, from 2009 to 2020. This numerically expressive general survey was based on raw data referring to internalizing and externalizing behaviors by age and sex. This research ignores the specificities of socioeconomic conditions or other intervening variables (which are undoubtedly integrated and interact with these behaviors), only describing the trends in a diversified universe of children and adolescents that were evaluated with the CBCL.

## METHOD

With quantitative, descriptive, documentary, and retrospective characteristics, this study results from the analysis of a database of CBCL/6-18 instrument protocols (described below), from the ASEBA Battery, which was composed using data from researchers who agreed to share their datasets. After identification through an active search for publications (articles, dissertations, theses, monographs), researchers who used ASEBA instruments in the country were identified and invited to share data in an Excel spreadsheet, through emails sent between 2020 and 2022. The request referred to Brazilian studies conducted between January 2009 and February 2020 (the period prior to the Covid-19 pandemic). The shared data did not include information on the specific location of data collection or the socioeconomic status of participants and were provided by scholars from three Brazilian regions (South, Southeast, and Center-West).

Inclusion criteria were: protocol data originating from research conducted with Brazilians within the national territory, regardless of region. Exclusion criteria were: files that did not contain all scales/subscales (protocols including only the Externalizing, Internalizing, and Total scales); files whose results were presented only in categories (clinical, non-clinical) and not in T-scores. Protocols with incomplete data were excluded. Only results presented as T-scores and containing information on the participant's gender and age from the original research were used.

Thus, the database consisted of a total of 6,926 protocols of the instrument, collected in diverse contexts (school, clinical, sports, and community) from the Southeast, Center-West, and South regions of Brazil. No data were received from other Brazilian regions.

The CBCL/6-18 (Achenbach & Rescorla, 2001), hereafter referred to as CBCL, is one of the instruments from the Achenbach System of Empirically Based Assessment (ASEBA), a set of assessment tools with standardized multicultural norms that includes items describing a broad spectrum of problems. This system contains more than 6,500 publications reporting research conducted in over 80 cultures (Achenbach, 2009, 2015). ASEBA provides inventories for assessing individuals across different age groups; the CBCL is designed for school-aged children and adolescents (ages 6 to 18). This instrument is intended for parents or caregivers, who must respond to a three-point Likert-type scale ranging from 0 (not true), 1 (somewhat or sometimes true), to 2 (very true or often true). Responses to the items are grouped through factor analysis during the construction and validation of the instrument: empirically based syndromes, DSM-oriented scales (not included in this study), and Competence scales. In addition to a scale that gathers information on social competencies (also excluded in this study), the CBCL contains 118 items in a scale of Behavioral and Emotional Problems in Childhood and Adolescence, empirically grouped into eight Syndromes (Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, and Aggressive Behavior). These Syndromes follow

a bottom-up model and—although they do not correspond directly to psychiatric diagnoses--help in investigating them. The calculation of CBCL scores considers age and gender (male, female, and not specified). Its results may be categorized according to T-scores into non-clinical, borderline, and clinical ranges (the latter two indicating greater intensity or frequency of mental-health problems) (Achenbach, 2019). Borderline and clinical scores were grouped as "clinical" in this study. CBCL data are systematized in the Aseba-PC software. Bordin, Mari and Caieiro (1995), Emerich, Rocha, Silvares and Gonçalves (2012), and Rocha, Ferrari and Silvares (2011) discuss data regarding the instrument's validation in the Brazilian context. Roama-Alves and Amorim (2025) also presented exploratory studies on evidence of validity and reliability of this instrument in Brazil.

For statistical analysis, the chi-square test of association was used in SPSS (IBM Corp. Released 2019. IBM SPSS Statistics for Windows, Version 26.0. Armonk, NY: IBM Corp). Considering the total number of respondents, a criterion analysis test (G*Power, version 3.1.9.7) was also performed to adjust the significance level to be adopted, after which a significance level of 0.1% ($\alpha$ = 0.001) was considered.

## RESULTS AND DISCUSSION

### The sample profile

This study obtained 6,826 protocols of CBCL, from 2009 to 2020, of which 3,194 (46.8%) referred to middle childhood (aged 6 to 9 years); 1,899 (27.8%), to early adolescence (aged 10 to 12 years); 1,221 (17.9%), to middle adolescence (aged 13 to 15 years); and 512 (7.5%), to late adolescence (aged 16 to 18 years). Regarding gender, 3,893 (57%) male and 2,933 (43%) female children/adolescents were evaluated.

### Syndromes and Scales: differences between sexes by age group

This study used the chi-squared test to assess the relationship between participants' gender and the Empirically Based Syndrome scales and the Scales (Table 1). This analysis considered the total sample (All) and its stratification by Age Group (Middle Childhood, Early Adolescence, Middle Adolescence, and Late Adolescence). These differences occurred in both the scores classified as non-clinical (for evinced behaviors without indicators of mental health problems) and clinical cases (those requiring mental health care).

The initial consideration of the analysis with all protocols (regardless of age group) found a significant difference ($p$<0.001) between boys and girls in the Aggressive Behavior, Withdrawn/Depressed, and Somatic Complaints Syndromes (most of which fell into non-clinical cases). The percentage of classification as clinical cases for these first two Syndromes was higher in boys than in girls. On the other hand, Somatic Complaints showed a higher proportion of clinical cases in female participants. In Valverde, Vitalle, Cintra, and Schoen (2012), carried out with adolescents from the municipality of São Paulo, boys obtained higher scores in Social Problems and lower scores in Rule-Breaking Behavior. On the other hand, girls had fewer problems in the Somatic complaints Syndrome and more problems in the Anxious/Depressed Group. Those authors observed that the Social Problems Syndrome was associated with the beginning of adolescence. Schoen (2024) found that adolescent girls had higher scores in the Somatic Complaints Syndrome.

Regarding the Scales, differences were observed between the Internalizing Problems and Externalizing Problems, with the former showing a greater rate of clinical cases and the latter, of non-clinical ones. Regarding sex, both syndromes showed a higher rate of clinical cases in boys.

Stratification by age group showed that the differences between female and male volunteers differed in middle childhood ($p$<0.001) for

the Aggressive Behavior, Social Problems, and Withdrawn/Depressed Syndromes, all of which showed a greater of frequency of non-clinical cases, with boys showing higher clinical rates than girls. Bishop, Okagbue, and Odukoya (2020) discussed genetic and environmental causes as factors that activate these differences. The gender-difference patterns observed—with boys exhibiting higher rates of externalizing problems and girls of internalizing problems—resonate with the literature investigating the interaction between biological predispositions and socializing factors. As discussed by Bishop, Okagbue, and Odukoya (2020), such disparities cannot be attributed to a single cause but rather to a diathesis–stress model, in which inherent genetic and neurobiological vulnerabilities linked to sex (such as differences in the maturation of neural circuits involved in emotional regulation and inhibitory control) interact with distinct environmental pressures. In this sense, the differentiated socialization of boys and girls—where boys are often expected to externalize aggression and girls to internalize distress—acts as a crucial environmental factor that shapes symptom expression, channeling underlying vulnerabilities into specific manifestations of mental health problems.

Moreover, the Internalizing Problems and Externalizing Problems Scales also differed between sexes, showing a higher frequency of non-clinical cases but higher rates of clinical cases in boys.

In the period classified as early adolescence, the differences between the sexes for the Syndromes ($p$<0.001) only occurred for Externalizing Problems, most often as non-clinical cases. Moreover, male participants showed a higher rate of clinical cases. Middle adolescence showed no differences regarding the Scales. Syndromes differed between the sexes in Attention Problems and Somatic Complaints. Both Syndromes occurred more often as non-clinical cases, and of the clinical cases, in greater quantity in girls.

Finally, when evaluating the data from the analysis for late adolescence, among all the Scales and Syndromes, only Somatic Complaints differed between the sexes, occurring more often as non-clinical cases, and showing a higher clinical classification in girls. Corroborating a study from the national literature (Valverde, Vitalle, Cintra & Schoen, 2012) that used ASEBA instruments, which found that the prevalence of Internalizing Problems stems from sex and adolescence.

**Table 1 -** *Relationship of Sex with Syndromes and Scales*

| Syndrome / Scale | Category | Female | | Male | | Total | | P-value |
|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | |
| **Aggressive Behavior** | Clinical | 842 | 28.70 | 1,318 | 33.80 | 2,160 | 31.60 | <0.001 |
| | Non-clinical | 2,091 | 71.30 | 2,576 | 66.20 | 4,667 | 68.40 | |
| **Anxious/Depressed** | Clinical | 1,066 | 36.30 | 1,421 | 36.50 | 2,487 | 36.40 | 0.901 |
| | Non-clinical | 1,867 | 63.70 | 2,473 | 63.50 | 4,340 | 63.60 | |
| **Attention Problems** | Clinical | 707 | 24.10 | 910 | 23.40 | 1,617 | 23.70 | 0.479 |
| | Non-clinical | 2,226 | 75.90 | 2,984 | 76.60 | 5,210 | 76.30 | |
| **Social Problems** | Clinical | 716 | 24.40 | 1,090 | 28.00 | 1,806 | 26.50 | 0.001 |
| | Non-clinical | 2,217 | 75.60 | 2,804 | 72.00 | 5,021 | 73.50 | |
| **Rule-Breaking Behavior** | Clinical | 455 | 15.50 | 647 | 16.60 | 1,102 | 16.10 | 0.22 |
| | Non-clinical | 2,478 | 84.50 | 3,247 | 83.40 | 5,725 | 83.90 | |
| **Somatic Complaints** | Clinical | 768 | 26.20 | 714 | 18.30 | 1,482 | 21.70 | <0.001 |
| | Non-clinical | 2,165 | 73.80 | 3,180 | 81.70 | 5,345 | 78.30 | |

| Syndrome / Scale | Category | Female | | Male | | Total | | P-value |
|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | |
| **Thought Problems** | Clinical | 667 | 22.70 | 884 | 22.70 | 1,551 | 22.70 | 0.969 |
| | Non-clinical | 2,266 | 77.30 | 3,010 | 77.30 | 5,276 | 77.30 | |
| **Withdrawn/Depressed** | Clinical | 828 | 28.20 | 1,326 | 34.10 | 2,154 | 31.60 | <0.001 |
| | Non-clinical | 2,105 | 71.80 | 2,568 | 65.90 | 4,673 | 68.40 | |
| **Externalizing Problems** | Clinical | 1,158 | 39.50 | 1,801 | 46.30 | 2,959 | 43.30 | <0.001 |
| | Non-clinical | 1,775 | 60.50 | 2,093 | 53.70 | 3,868 | 56.70 | |
| **Internalizing Problems** | Clinical | 1,569 | 53.50 | 2,295 | 58.90 | 3,864 | 56.60 | <0.001 |
| | Non-clinical | 1,364 | 46.50 | 1,599 | 41.10 | 2,963 | 43.40 | |
| **Total Problems** | Clinical | 1,563 | 53.30 | 2,141 | 55.00 | 3,704 | 54.30 | 0.165 |
| | Non-clinical | 1,370 | 46.70 | 1,753 | 45.00 | 3,123 | 45.70 | |

Together, these results suggest that, in the empirically based syndrome scales, from 12.4% (Rule-Breaking Behavior) and 40.7% (Withdrawn/Depressed) of children and adolescents had clinical scores.

Regarding the Internalizing Problems Syndrome (Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints), children in Middle Childhood scored lower than adolescents as early adolescence had more individuals with clinical cases in the Anxious/Depressed Syndrome and late adolescence in the Withdrawn/Depressed and Somatic Complaints Syndromes. Morphological and hormonal changes associated with puberty may contribute to these trends (Medeiros et al., 2021). Studies have indicated that adolescent girls show an increased risk of depression, eating disorders, sleep problems, and obsessive-compulsive disorder, when compared to younger girls (Bisaga *et al.*, 2002; Nam, Han & Lee, 2017).

## Syndromes and Scales: differences between age groups according to sex

In addition to the analysis of the association of the Syndromes and Scales with participants' sex, this research also evaluated the difference between the proposed age groups in each sex by the chi-squared test (as shown in Table 2). Analysis initially considered the total sample—both girls and boys (All)—and then stratified by gender.

A significant difference occurred ($p$<0.001) between age groups for all Syndromes, in which all participants (in all age groups) showed a higher rate of non-clinical cases. The Scales significantly differed between the age groups for Externalizing Problems, Internalizing Problems, and Total Problems. For Externalizing Problems, the highest classification in all age groups refers to non-clinical cases and for Internalizing Problems and Total Problems, clinical cases.

Stratification by sex showed that female participants differed between age groups ($p$<0.001) in the Anxious/Depressed, Social Problems, Somatic Problems, and Withdrawn/Depressed Syndromes, which showed a higher rate of non-clinical cases. Considering these Syndromes, clinical cases occurred more often in Late Adolescence for Somatic Complaints and Withdrawn/Depressed and in Middle Adolescence for Anxious/Depressed and Social Problems. Regarding the Scales, differences occurred between the age groups for Total Problems and Internalizing Problems. Both showed that Middle Childhood showed a higher rate of non-clinical cases, whereas all phases of adolescence, a higher classification of clinical cases (with greater frequency in Late Adolescence).

In boys, differences between age groups regarding Syndromes occurred for Aggressive Behavior, Anxious/Depressed, Attention Problems,

Rule-Breaking Behavior, Somatic Complaints, and Thought Problems (all showing higher rates of non-clinical cases). The clinical cases showed a higher frequency in middle Childhood for Aggressive Behavior; in Late Adolescence, for Thought Problems; and in Early Adolescence, for the other Syndromes mentioned above.

Finally, the Scales significantly differed between the age groups ($p$<0.001) for Externalizing Problems, Internalizing Problems, and Total Problems. Regarding the Total Problems, only middle adolescence showed a higher rate of non-clinical cases. Among the other age groups, the highest rate of clinical cases occurred in early adolescence. Regarding Externalizing Problems, all age groups showed a higher frequency of non-clinical cases, with early adolescence obtaining the highest number of clinical cases. Regarding Internalizing Problems, unlike Externalizing Problems, the highest frequency refers to clinical cases, especially in early adolescence.

**Table 2 -** *Relationship of Age Groups with Syndromes and Scales*

| Syndrome / Scale | Category | Middle childhood | | Early adolescence | | Middle adolescence | | Late adolescence | | Total | | P-value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | N | % | N | % | |
| **Aggressive Behavior** | Clinical | 399 | 29.9 | 228 | 29.1 | 143 | 26.4 | 72 | 26.2 | 842 | 28.7 | 0.498 |
| | Non-clinical | 935 | 70.1 | 555 | 70.9 | 398 | 73.6 | 203 | 73.8 | 2,091 | 71.3 | |
| **Anxious/ Depressed** | Clinical | 406 | 30.4 | 312 | 39.8 | 237 | 43.8 | 111 | 40.4 | 1,066 | 36.3 | <0.001 |
| | Non-clinical | 928 | 69.6 | 471 | 60.2 | 304 | 56.2 | 164 | 59.6 | 1,867 | 63.7 | |
| **Attention Problems** | Clinical | 289 | 21.7 | 198 | 25.3 | 152 | 28.1 | 68 | 24.7 | 707 | 24.1 | 0.022 |
| | Non-clinical | 1,045 | 78.3 | 585 | 74.7 | 389 | 71.9 | 207 | 75.3 | 2,226 | 75.9 | |
| **Social Problems** | Clinical | 257 | 19.3 | 194 | 24.8 | 177 | 32.7 | 88 | 32 | 716 | 24.4 | <0.001 |
| | Non-clinical | 1,077 | 80.7 | 589 | 75.2 | 364 | 67.3 | 187 | 68 | 2,217 | 75.6 | |
| **Rule-Breaking Behavior** | Clinical | 208 | 15.6 | 136 | 17.4 | 72 | 13.3 | 39 | 14.2 | 455 | 15.5 | 0.254 |
| | Non-clinical | 1,126 | 84.4 | 647 | 82.6 | 469 | 86.7 | 236 | 85.8 | 2,478 | 84.5 | |
| **Somatic Complaints** | Clinical | 239 | 17.9 | 214 | 27.3 | 191 | 35.3 | 124 | 45.1 | 768 | 26.2 | <0.001 |
| | Non-clinical | 1,095 | 82.1 | 569 | 72.7 | 350 | 64.7 | 151 | 54.9 | 2,165 | 73.8 | |
| **Thought Problems** | Clinical | 282 | 21.1 | 175 | 22.3 | 147 | 27.2 | 63 | 22.9 | 667 | 22.7 | 0.045 |
| | Non-clinical | 1,052 | 78.9 | 608 | 77.7 | 394 | 72.8 | 212 | 77.1 | 2,266 | 77.3 | |
| **Withdrawn/ Depressed** | Clinical | 284 | 21.3 | 239 | 30.5 | 193 | 35.7 | 112 | 40.7 | 828 | 28.2 | <0.001 |
| | Non-clinical | 1,050 | 78.7 | 544 | 69.5 | 348 | 64.3 | 163 | 59.3 | 2,105 | 71.8 | |
| **Externalizing Problems** | Clinical | 535 | 40.1 | 312 | 39.8 | 201 | 37.2 | 110 | 40 | 1,158 | 39.5 | 0.685 |
| | Non-clinical | 799 | 59.9 | 471 | 60.2 | 340 | 62.8 | 165 | 60 | 1,775 | 60.5 | |
| **Internalizing Problems** | Clinical | 608 | 45.6 | 443 | 56.6 | 335 | 61.9 | 183 | 66.5 | 1,569 | 53.5 | <0.001 |
| | Non-clinical | 726 | 54.4 | 340 | 43.4 | 206 | 38.1 | 92 | 33.5 | 1,364 | 46.5 | |
| **Total Problems** | Clinical | 647 | 48.5 | 428 | 54.7 | 322 | 59.5 | 166 | 60.4 | 1,563 | 53.3 | <0.001 |
| | Non-clinical | 687 | 51.5 | 355 | 45.3 | 219 | 40.5 | 109 | 39.6 | 1,370 | 46.7 | |

Regarding Externalizing Syndromes (in Rule-Breaking and Aggressive Behavior), late adolescence had the lowest mean scores and middle childhood, the highest. This result may be due to older adolescents having developed better self-regulation. Some authors understand that antisocial behavior decreases as children grow older (Bishop, Okagbue & Odukoya, 2020). Thus, the data suggest that the decrease in these behaviors may reflect a natural process of acquiring psychosocial competencies associated with neurocognitive maturation.

Based on the analysis of 6,826 Child Behavior Checklist (CBCL) protocols, this study highlights critical epidemiological patterns and establishes a direct dialogue with the national and international literature that motivated the investigation. The high prevalence of clinical cases, ranging from 12.4% to 40.7% across the various syndromes, corroborates the World Health Organization (2021) alerts regarding the significant burden of mental disorders among children and adolescents.

The results reveal a differentiated distribution by sex and age group, with boys presenting higher percentages in externalizing syndromes such as aggressive behavior, while girls show a greater prevalence of internalizing problems, notably somatic complaints—a pattern reflecting the cross-cultural consistency documented by Ivanova et al. (2007) and supporting Schoen's (2004) observations in the Brazilian context. Developmental stratification showed that middle childhood is characterized by lower scores in internalizing syndromes, whereas adolescence—particularly its later phase—emerges as a period of heightened vulnerability for withdrawn/depressed profiles and somatic complaints, a pattern possibly associated with the morphological and hormonal transformations of puberty as discussed by Medeiros et al. (2021).

This updated and numerically robust profile fills a gap identified by earlier Brazilian studies, such as Borsa and Nunes (2011) and Emerich, Rocha, Silvares and Gonçalves (2012), which highlighted the scarcity of systematic national data. By validating and updating findings from pioneering national research using the CBCL, such as Rocha *et al.* (2013), and by emphasizing the intensification of internalizing problems during adolescence—consistent with Valverde, Vitalle, Cintra, and Schoen (2012)—this study advances the field by demonstrating, in a stratified manner, how this trend is particularly pronounced for anxious/depressed syndromes in early adolescence and for withdrawn/depressed and somatic complaints in late adolescence.

This detailed developmental mapping, combined with consistency with international studies that used the ASEBA system, such as Rescorla et al. (2007), not only validates the usefulness of the CBCL as a screening tool in the Brazilian context but also provides essential empirical support for the development of targeted public policies and the implementation of selective and universal prevention programs in school settings, as suggested by Borsa, Souza and Bandeira (2011), guiding earlier and more effective interventions for the Brazilian pediatric population.

## FINAL CONSIDERATIONS

The assessment of mental health in childhood and adolescence presents complex methodological challenges, with significant variation in findings depending on the instruments and contexts used. This study addresses this gap by presenting a broad epidemiological survey based on 6,826 CBCL protocols (2009–2020), offering an unprecedented analysis of emotional and behavioral problems in the Brazilian school-aged population from the perspective of their caregivers, following the bottom-up classification (Schoen, Oliveira-Monteiro, Silva & Marteleto, 2022).

We acknowledge as limitations the absence of intervening variables—such as socioeconomic, individual, and environmental factors—and the non-use of the instrument's social competence scales. Despite these constraints, the findings provide valuable contributions to different fields of practice. In the clinical domain, the data support the establishment of national reference norms that facilitate the early identification

of at-risk children, accurately outlining mental vulnerability profiles by sex and developmental stage (Borsa & Nunes, 2011). For the educational context, the confirmation of a significant increase in internalizing symptoms during adolescence, particularly the anxious/depressed syndrome at its onset, reinforces the urgent need to implement prevention programs focused on emotional regulation during this developmental transition (Borsa, Souza & Bandeira, 2011). In the realm of public policy, the documentation of high prevalence rates (≥40% in some syndromes) and their detailed distribution constitute an essential epidemiological map to guide resource allocation, primary care workforce training, and the expansion of specialized services (Leonardo, Leal & Rossato, 2018).

Thus, this study transcends a purely descriptive purpose by grounding robust evidence in applicable strategies, connecting empirical data to concrete actions based on the real needs of Brazilian children and adolescents.

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