









## PREVALENCE OF THE EXPOSURE TO SITUATIONS OF VIOLENCE EXPERIENCED BY BRAZILIAN IN-SCHOOL ADOLESCENTS

### PREVALÊNCIA DE EXPOSIÇÃO ÀS SITUAÇÕES DE VIOLÊNCIA VIVIDAS POR ESTUDANTES ADOLESCENTES BRASILEIROS

### PREVALENCIA DE LA EXPOSICIÓN A SITUACIONES DE VIOLENCIA ENTRE LOS ESTUDIANTES ADOLESCENTES BRASILEÑOS

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#### ABSTRACT

**Objective:** to describe and compare the indicators corresponding to exposure to situations of violence experienced by in-school adolescents according to gender, type of school and Federation Units in 2015 and 2019. **Methods:** A cross-sectional and descriptive study conducted with data from the National School Health Survey (Pesquisa Nacional de Saúde do Escolar, PeNSE). The prevalence values and their respective 95% confidence intervals (85% CIs) of the indicators corresponding to exposure to situations of violence involving adolescents were described and compared. **Results:** They pointed out that: 11.6% missed classes due to insecurity on the way (95% CI: 11.1-12.1); 10.8% missed classes due to insecurity at school (95% CI: 10.3-11.2); and the highest prevalence values of violence were recorded among girls and public school students. Among the study indicators, it was found that the prevalence of students who were involved in physical fights was 10.6% (95% CI: 10.2-11.0), in fights with firearm use, 2.9% (95% CI: 2.7-3.1), and in fights with melee weapon use, 4.8% (95% CI: 4.5-5.1), most of them boys who attended public schools. 18.2% (95% CI: 17.7-18.7) reported having suffered an accident or aggression in the last year and 21.0% (95% CI: 20.5-21.6) stated having been assaulted by their mother/father/guardian, most of them from private schools. There were improvements in the following indicators between 2015 and 2019: engaging in a fight involving a firearm, from 6.4% (95% CI: 5.6-7.2) in 2015 to 2.9% (95% CI: 2.7-3.1) in 2019; and engaging in a fight involving a melee weapon, from 7.9% (95% CI: 7.0-8.8) in 2015 to 4.8% (95% CI: 4.5-5.1) in 2019. **Conclusion:** Adolescents are exposed to several types of violence in the school or community settings, in addition to experiencing violence in the family/domestic environment. These institutions should be capable of ensuring protection and healthy and safe development to adolescents.

**Keywords:** Violence; Child Abuse; Adolescent; Student Health; Gun Violence.

#### RESUMO

**Objetivo:** descrever e comparar os indicadores de exposição a situações de violência vividas por estudantes adolescentes, de acordo com sexo, tipo de escola e unidades federadas nos anos de 2015 e 2019. **Métodos:** estudo transversal, descritivo com dados da Pesquisa Nacional de Saúde do Escolar (PeNSE). Foram descritas e comparadas as prevalências e seus respectivos intervalos de confiança de 95% (IC95%) dos indicadores de exposição às situações de violência envolvendo adolescentes. **Resultados:** apontaram que: faltaram à escola por insegurança no trajeto 11,6% (IC95%:11,1;12,1); faltaram à escola por insegurança na escola 10,8% (IC95%:10,3;11,2); maiores prevalências de violência foram nas meninas e em estudantes de escolas públicas. Dentre os indicadores do estudo, constatou-se a que a prevalência de escolares que estiveram envolvidos em briga com luta física foi de 10,6% (IC95%:10,2;11,0), em briga com utilização de arma de fogo 2,9% (IC95%:2,7;3,1) e uso de arma branca foi de 4,8% (IC95%:4,5;5,1), dos quais a maioria eram meninos que estudavam em escolas públicas. Relataram ter sofrido acidente ou agressão no último ano 18,2% (IC95%:17,7;18,7) e 21,0% (IC95%:20,5;21,6), tendo sido agredidos pela mãe/pai/responsável e a maioria oriunda de escolas particulares. Ocorreu melhorias nos seguintes indicadores entre 2015 e 2019: envolver-se em briga com arma de fogo, de 6,4% (IC95%: 5,6;7,2) em (2015) para 2,9% (IC95%:2,7;3,1) (2019); e envolver-se em briga com arma branca, de 7,9% (IC95%:7,0;8,8) (2015) para 4,8% (IC95%:4,5;5,1) em (2019). **Conclusão:** os adolescentes estão expostos a violências no âmbito escolar ou comunitária, além de sofrerem violências no ambiente intrafamiliar/doméstico. Essas instituições deveriam ser capazes de garantir a proteção e o desenvolvimento saudável e seguro do adolescente.

**Palavras-chave:** Violência; Maus-tratos Infantis; Adolescente; Saúde do Estudante; Violência com Arma de Fogo.

#### RESUMEN

**Objetivo:** describir y comparar los indicadores de exposición a situaciones de violencia de los estudiantes adolescentes según género, tipo de escuela y unidades federadas, en 2015 y 2019. **Métodos:** estudio transversal, descriptivo con datos de la Encuesta Nacional de Salud Escolar. Se describieron y compararon la prevalencia y los respectivos intervalos de confianza del 95% (IC95%) de los indicadores de exposición a situaciones de violencia que afectan a los adolescentes. **Resultados:** se registraron ausencias escolares: por inseguridad en el camino a la escuela 11,6% (IC95%:11,1;12,1); por inseguridad en la escuela 10,8% (IC95%:10,3;11,2); la mayor prevalencia fue entre las niñas y los estudiantes de escuelas públicas. Entre los indicadores del estudio: la prevalencia de alumnos implicados en peleas con lucha física fue del 10,6% (IC95%:10,2;11,0), en peleas con armas de fuego del 2,9% (IC95%:2,7;3,1); uso de arma blanca del 4,8% (IC95%:4,5;5,1), la mayoría de ellos eran varones, que estudiaban en escuelas públicas. El 18,2% (IC95%:17,7;18,7) declaró haber sufrido un accidente o una agresión en

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el último año, el 21,0% (IC95%:20,5;21,6) fue agredido por su madre/padre/cuidador y la mayoría procedía de colegios privados. Se produjeron mejoras en los siguientes indicadores entre 2015 y 2019: involucrarse en una pelea con un arma de fuego, del 6,4% (IC 95%:5,6;7,2) en (2015) al 2,9% (IC 95%:2,7;3,1) (2019); involucrarse en una pelea con un cuchillo: del 7,9% (IC 95%:7,0;8,8) (2015) al 4,8% (IC 95%:4,5;5,1) en (2019). Conclusión: los adolescentes están expuestos a la violencia en el ámbito escolar o comunitario, además de sufrirla en el entorno intrafamiliar/doméstico. Estas instituciones deben ser capaces de garantizar la protección y el desarrollo sano y seguro del adolescente.

Palabras clave: Violencia; Maltrato a los Niños; Adolescente; Salud del Estudiante; Violencia con Armas.

## INTRODUCTION

Violence against children and adolescents represents one of the largest global social and public health problems, with devastating impacts throughout life. According to the World Health Organization (WHO), violence against this group includes all forms of emotional and/or physical abuse, sexual abuse, neglect or negligent treatment, commercial exploitation (child labor) or other forms. This situation can generate potential or real harms on children's health, which exerts impacts on their survival, development or dignity in contexts marked by relationships of responsibility, trust or power.<sup>1</sup>

Globally, the estimates show that 1 out of 2 children aged between 2 and 17 years old experiences some type of violence annually.<sup>1</sup> In Brazil, from 2016 to 2020, there were 34,918 intentional violent deaths of children and adolescents aged from 0 to 19 years old, of which 91% were male victims and 75% were of black race/skin color.<sup>2</sup>

Children and adolescents exposed to violence are more likely to develop mental disorders, risk behaviors (such as alcohol and drug abuse, smoking and unsafe sex), chronic non-communicable diseases (CNCDs) (such as cancer, diabetes and cardiovascular disease), infectious diseases (such as infection by the human immunodeficiency virus - HIV), as well as social problems, including poor school performance, criminality and violence.<sup>1</sup> Violence constitutes multicausal phenomena, which are associated with economic and sociocultural inequalities, but also with subjective and behavioral aspects prevailing in each society.<sup>1</sup>

Considering the impacts of violence on individuals, families and societies, in the 2030 Agenda and through the Sustainable Development Goals (SDGs), indicators referring to the eradication of violence against women and girls, to a one third reduction in the rates of femicide and homicide of children, adolescents, youth, black-skinned individuals, indigenous people, women and LGBTQIAP+ people and to the reduction of illegal weapons, among others.<sup>3</sup>

These indicators represent responsibilities for the country's present and future.

In this scenario, the National School Health Survey (PeNSE) aims at knowing and measuring the risk and protection factors for adolescents' health, as well as at obtaining diverse information on situations of violence experienced and perceived by adolescent students.<sup>4</sup> The importance of this monitoring stands out mainly because violence is the main cause of morbidity and mortality among adolescents in Brazil.<sup>5</sup>

Thus, the objectives of the current study are to describe and compare the indicators of exposure to situations of violence experienced by schoolchildren, according to gender, type of school and Federation Units (FUs) in 2015 and 2019.

## METHODS

### Study type and locus

This is a cross-sectional and descriptive study that used secondary data from the PeNSE survey conducted in Brazilian public and private school in its 2015 and 2019 editions. The survey was developed in a partnership between the Brazilian Geography and Statistics Institute (Instituto Brasileiro de Geografia e Estatística, IBGE) and the Ministry of Health (Ministério da Saúde, MS), in addition to enjoying the support of the Ministry of Education.<sup>4</sup>

### Sample

In 2015, two different sampling plans were used: a) Sample 1: students attending 9<sup>th</sup> grade of Elementary School; and b) Sample 2: students aged 13 to 17 who attended from 6<sup>th</sup> grade of Elementary School to 3<sup>rd</sup> year of High School. In 2015, 10,926 Brazilian students from 371 schools and 653 classes were investigated in the five main regions of the country, both in public and private schools.<sup>6</sup> PeNSE's sampling plan is conglomerated in two stages: the schools correspond to the first stage and the classes of students enrolled to the second. All the adolescents in the classes selected were invited to answer the survey questionnaire.<sup>4</sup>

A single sample of students was used in 2019, comprised by adolescents aged from 13 to 17 years old attending public and private schools. The participants were 159,245 students from 4,242 schools, distributed across 6,612 classes.<sup>4</sup> Sample weights were calculated considering the following: the weights of the schools,

classes and students, having been adjusted based on the data from the School Census. The sample details can be found in other publications.<sup>4,6</sup>

Using smartphones, the students answered the structured and self-applied questionnaire, which included diverse information on socioeconomic status, family context, experimentation and use of cigarettes, alcohol and other drugs, violence, safety, accidents and other living conditions of these in-school adolescents.<sup>4</sup>

### Indicators

The current study analyzed indicators referring to the situations of violence presented in Figure 1. It is important to note that, as they are applied using software on smartphones, the PeNSE questionnaires are scheduled so that there is no lack of response, and the students can only advance in the questions by completing each of the answers.

The prevalence and the respective 95% confidence intervals (95% CI) of the indicators of exposure to situations of violence obtained in each edition of the survey were calculated, considering the self-reported gender (male; female), the type of school (public; private) and the Federation Units. The comparison was only performed for the indicators of exposure to violence common to the 2015 and 2019 editions. The difference was considered significant when there was overlapping of the 95% CIs between the years evaluated.

The sampling process structure and the weights after stratification were considered for all the analyses. The data were analyzed in the SAS statistical software, and the data are available on the IBGE website ([www.ibge.gov.br](http://www.ibge.gov.br)).

### Ethical aspects

Conduction of the research was preceded by contacts with the State and Municipal Education Departments and with the boards of the schools selected in each municipality. The students were informed about the research, their free participation and the possibility of withdrawing in case they were not willing to answer the questions. PeNSE complies with the Regulating Guidelines and Norms for Research Studies involving Human Beings, and was approved by the National Research Ethics Commission belonging to the Ministry of Health (Comissão Nacional de Ética em Pesquisa do Ministério da Saúde, CONEP/MS).

## RESULTS

Table 1 presents the prevalence values of exposure to violence experienced by the students in 2019. In relation to the total, 11.6% (95% CI: 11.1-12.1) of the students reported having missed classes in the 30 days prior to the survey due to insecurity on the way from home to school, and 10.8% (95% CI: 10.3-11.2) were absent due to insecurity at school. Of the total number of students, 10.6% (95% CI: 10.2-11.0) were involved in a physical fight, 2.9% (95% CI: 2.7-3.1) in a fight in which a firearm was used and 4.8% (95% CI: 4.5-5.1) in fights with melee weapon use. In relation to having suffered an accident or aggression in the year prior to the survey, the prevalence was 18.2% (95% CI: 17.7-18.7). Referring to the aggressor, 21.0% (95% CI: 20.5-21.6) was assaulted by their mother, father or guardian and 13.2% (95% CI: 12.7-13.7), by other people.

The prevalence of missing classes due to insecurity reasons on the way from home to school was higher among the girls (12.7%; 95% CI: 12.0-13.4) when compared to the boys (10.5%; 95% CI: 9.9-11.0). The absences due to insecurity reasons were more prevalent among the girls (12.1%; 95% CI: 11.5-12.7). Among the boys, greater engagement in physical fights (10.6%; 95% CI: 10.2-11.0), fights with firearm use (4.4%; 95% CI: 4.0-4.8) and fights where melee weapons were used (6.6%; 95% CI: 6.2-7.1) was verified. In terms of having suffered an accident or aggression in the last year, the prevalence was 19.9% (95% CI: 19.3-20.6) in the boys and 16.5% (95% CI: 16.0-17.1) in the girls. The girls were mainly assaulted by their mother, father or guardian (19.6%; 95% CI: 19.3-20.6) and the boys, by other people (14.4%; 95% CI: 13.8-14.9) (Table 2).

Regarding the type of educational institution, 12.5% (95% CI: 11.9-13.1) of the students from public schools missed classes due to insecurity on the way from home to school, against 6.2% (95% CI: 5.7-6.6) from private schools. Regarding insecurity at school, the prevalence was also higher in public institutions (11.4%; 95% CI: 10.9-11.9). Engagement in fights where firearms (3.1%; 95% CI: 2.9-3.4) and melee weapons (5.1%; 95% CI: 4.8-5.5) were used was more prevalent in the public schools. If compared to the students from public schools, those from private institutions presented higher prevalence of reference to accidents or aggression (26.1%; 95% CI: 25.4-26.8), assaults by the mother, father or guardian (23.6%; 95% CI: 22.9-24.3) and by another person (16.4%; 95% CI: 15.7-17.0). There was no significant difference regarding engagement in physical fights between students attending public and private schools (Table 2).

Figure 1 - Description of the indicators, questions and answer options referring to the exposure to situations of violence experienced by in-school adolescents. Brazil, 2015 and 2019

INDICATORS	PeNSE 2015	PeNSE 2019
They missed classes in the 30 days prior to the survey due to insecurity reasons on the way from home to school	IN THE LAST 30 DAYS, how many days did you miss classes because you did not feel safe on the way to or from the school? None of the last 30 days (0 days); 1 day in the last 30 days; 2 days in the last 30 days; 3 days in the last 30 days; 4 days in the last 30 days; 5 or more days in the last 30 days	IN THE LAST 30 DAYS, how many days did you miss classes because you did not feel safe ON THE WAY to or from the school? None of the last 30 days; 1 day; 2 days; 3 days; 4 days; 5 or more days
They missed classes in the 30 days prior to the survey due to insecurity reasons at the school	IN THE LAST 30 DAYS, how many days did you miss classes because you did not feel safe at school? None of the last 30 days (0 days); 1 day in the last 30 days; 2 days in the last 30 days; 3 days in the last 30 days; 4 days in the last 30 days; 5 or more days in the last 30 days	IN THE LAST 30 DAYS, how many days did you miss classes because you did not feel safe AT THE SCHOOL? None of the last 30 days; 1 day; 2 days; 3 days; 4 days; 5 or more days
They engaged in a physical fight in the 30 days prior to the survey	IN THE LAST 12 MONTHS, how many times were you physically assaulted? Never in the last 30 days (0 times); 1 time in the last 30 days; 2-3 times in the last 30 days; 4-5 times in the last 30 days; 6-7 times in the last 30 days; 8-9 times in the last 30 days; 10-11 times in the last 30 days; 12 times or more in the last 30 days. (Not comparable)	Did you engage in any physical fight IN THE LAST 30 DAYS? Yes; No
They engaged in a fight in which some person used a firearm in the 30 days prior to the survey	IN THE LAST 30 DAYS, did you engage in any fight in which some person used a firearm, such as a pistol or a rifle? Yes; No	IN THE LAST 30 DAYS, did you engage in any fight in which some person used a firearm, such as a pistol or a rifle? Yes; No
They engaged in a fight in which some person used a melee weapon in the 30 days prior to the survey	IN THE LAST 30 DAYS, did you engage in any fight in which some person used a melee weapon, such as a knife, penknife, fish knife, stone, a piece of wood or bottle? Yes; No	IN THE LAST 30 DAYS, did you engage in any fight in which some person used a melee weapon, such as a knife, penknife, fish knife, stone, a piece of wood or bottle? Yes; No
They suffered an accident or aggression in the 12 months prior to the survey	IN THE LAST 12 MONTHS, how many times were you seriously wounded? Never in the last 30 days (0 times); 1 time in the last 30 days; 2 or 3 times in the last 30 days; 4 or 5 times in the last 30 days; 6 or 7 times in the last 30 days; 8 or 9 times in the last 30 days; 10 or 11 times in the last 30 days; 12 times or more in the last 30 days. (Not comparable)	IN THE LAST 12 MONTHS, did you suffer any accident or aggression? Yes; No
They were physically assaulted by their mother, father or guardian in the 12 months prior to the survey	IN THE LAST 30 DAYS, how many times were you physically assaulted by an adult from your family? Never in the last 30 days (0 times); 1 time in the last 30 days; 2 or 3 times in the last 30 days; 4 or 5 times in the last 30 days; 6 or 7 times in the last 30 days; 8 or 9 times in the last 30 days; 10 or 11 times in the last 30 days; 12 times or more in the last 30 days. (Not comparable)	IN THE LAST 12 MONTHS, how many times were you physically assaulted by your mother, father or guardian? Never in the last 12 months; 1 time, from 2 to 5 times, 6 or more times
They were physically assaulted by another person than their mother, father or guardian in the 12 months prior to the survey	This edition does not include any question about violence by non-family members. (Not comparable)	IN THE LAST 12 MONTHS, how many times were you physically assaulted by A PERSON OTHER than your mother, father or guardian? Never in the last 12 months; 1 time, from 2 to 5 times, 6 or more times

Fonte: Pesquisa Nacional de Saúde de Escolares (PeNSE).

Table 1 - Prevalence of the exposure to situations of violence experienced by students aged from 13 to 17 years old, according to gender and type of school. Brazil, 2019

Indicators from 2019	Total	Gender		Type of school	
		Male	Female	Public	Private
	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
They missed classes in the 30 days prior to the survey due to insecurity reasons on the way from home to school	11.6 (11.1-12.1)	10.5 (9.9-11.0)	12.7 (12.0-13.4)	12.5 (11.9-13.1)	6.2 (5.7-6.6)
They missed classes in the 30 days prior to the survey due to insecurity reasons at the school	10.8 (10.3-11.2)	9.4 (8.8-9.9)	12.1 (11.5-12.7)	11.4 (10.9-11.9)	7.07 (6.6-7.6)
They engaged in a physical fight in the 30 days prior to the survey	10.6 (10.2-11.0)	14.6 (14.0-15.2)	6.7 (6.2-7.2)	10.7 (10.2-11.2)	10.2 (9.7-10.7)
They engaged in a fight in which some person used a firearm in the 30 days prior to the survey	2.9 (2.7-3.1)	4.4 (4.0-4.8)	1.5 (1.2-1.7)	3.1 (2.9-3.4)	1.49 (1.3-1.7)
They engaged in a fight in which some person used a melee weapon in the 30 days prior to the survey	4.8 (4.5-5.1)	6.6 (6.2-7.1)	3.0 (2.7-3.4)	5.1 (4.8-5.5)	3.0 (2.7-3.2)
They suffered an accident or aggression in the 12 months prior to the survey	18.2 (17.7-18.7)	19.9 (19.3-20.6)	16.5 (16.0-17.1)	16.9 (16.3-17.4)	26.1 (25.4-26.8)
They were physically assaulted by their mother, father or guardian in the 12 months prior to the survey	21.0 (20.5-21.6)	19.9 (19.3-20.6)	22.1 (21.3-22.9)	20.6 (20.0-21.2)	23.6 (22.9-24.3)
They were physically assaulted by their a person other than their mother, father or guardian in the 12 months prior to the survey	13.2 (12.7-13.7)	14.4 (13.8-14.9)	12.1 (11.5-12.7)	12.7 (12.2-13.2)	16.4 (15.7-17.0)

Source: National School Health Survey (PeNSE).

Table 2 presents the comparison of the prevalence values for the exposure to violence experienced by the students between 2015 and 2019. The prevalence of students who engaged in some fight with firearms in the last 30 days dropped from 6.4% (95% CI: 5.6-7.2) to 2.9% (95% CI: 2.7-3.1). Engagement in some fight with melee weapons dropped from 7.9% (95% CI: 7.0-8.8) in 2015 to 4.8% (95% CI: 4.5-5.1) in 2019. On the other hand, the indicators corresponding to missing classes due to insecurity reasons on the way from home to school and due to insecurity at school did not present differences between 2015 and 2019.

Figure 2 below shows the prevalence of missing classes due to insecurity on the way from home to school, involvement in a fight in which someone used a firearm, and accident or aggression sometime in the year prior to the research, by FUs. In Figure 2 (A), higher prevalence values were found in Rio de Janeiro (17.6%; 95% CI: 15.4-19.9), Roraima (15.2%; 95% CI: 13.0-17.4), Amapá (14.5%; 95% CI: 12.8-16.1), Amazonas (14.3%; 95% CI: 11.8-16.8) and Pará (13.4%; 95% CI: 11.3-15.5). On the other hand, the lowest prevalence values were observed in Rio Grande do Sul (8.0%; 95% CI: 6.4-9.7), Paraná (8.1%; 95% CI: 6.5-9.7) and Piauí (8.9%; 95% CI: 7.9-10.0). Figure 2 (B) shows that the highest prevalence values

Table 2 - Comparison between the prevalence values for the exposure to situations of violence experienced by students aged from 13 to 17 years old. Brazil, 2015 and 2019

Indicators	Total 2015	Total 2019
	% (95% CI)	% (95% CI)
They missed classes in the 30 days prior to the survey due to insecurity reasons on the way from home to school	13.1 (11.9-14.3)	11.6 (11.1-12.1)
They missed classes in the 30 days prior to the survey due to insecurity reasons at the school	10.1 (9.2-11.0)	10.8 (10.3-11.2)
They engaged in a fight in which some person used a firearm in the 30 days prior to the survey	6.4 (5.6-7.2)	2.9 (2.7-3.1)
They engaged in a fight in which some person used a melee weapon in the 30 days prior to the survey	7.9 (7.0-8.8)	4.8 (4.5-5.1)

Source: National School Health Survey (PeNSE).



were observed in Roraima (4.3%; 95% CI: 3.1-5.5), Goiás (4.1%; 95% CI: 3.2-5.0), Rio de Janeiro (4.0%; 95% CI: 3.0-5.0), Paraná (3.7%; 95% CI: 2.8-4.6) and Amapá (3.6%; 95% CI: 3.0-4.3). Lower prevalence values were observed in Piauí (1.9%; 95% CI: 1.4-2.4), Bahia (2.0%; 95% CI: 1.2-2.8) and Rio Grande do Sul (2.2%; 95% CI: 1.3-3.1). In Figure 2 (C), the FUs with the highest prevalence values of students who suffered an accident or aggression were Distrito Federal (21.3%; 95% CI: 19.5-23.2), São Paulo (20.8%;

95% CI: 19.1-22.5), Rio de Janeiro (19.6%; 95% CI: 18.3-20.9), Rio Grande do Sul (19.5%; 95% CI: 18.0-21.1) and Santa Catarina (19.1%; 95% CI: 16.7-21.4). On the other hand, lower prevalence values were observed in Alagoas (14.1%; 95% CI: 12.6-15.5), Piauí (14.7%; 95% CI: 13.1-16.3) and Pernambuco (15.5%; 95% CI: 13.6-17.4).

## DISCUSSION

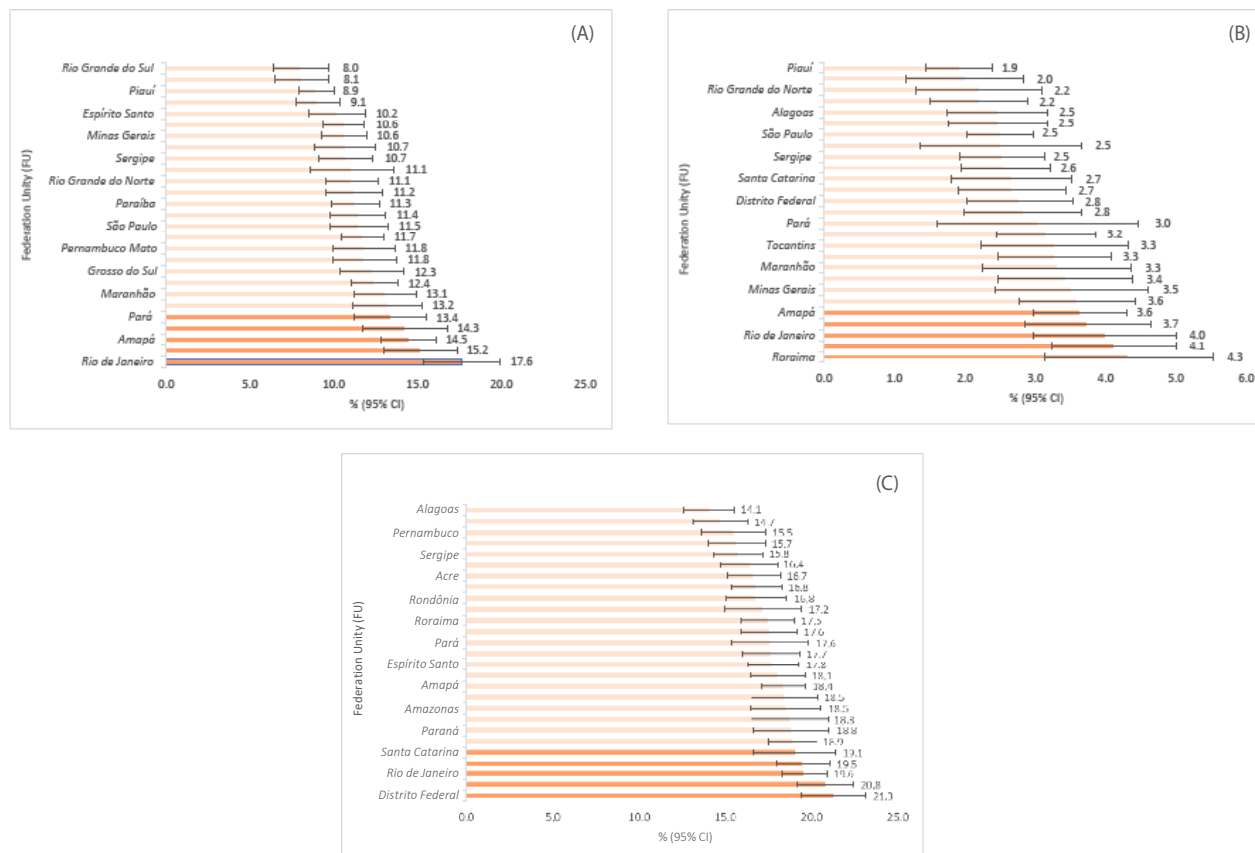


Figure 2 - Prevalence of students aged 13 to 17 who missed classes in the 30 days prior to the survey due to insecurity on the way from home to school (A), involvement in a fight in which someone used a firearm in the 30 days prior to the survey (B), and suffering an accident or aggression sometime in the 12 months prior to the survey (C), according to Federation Units, Brazil, 2019  
Source: National School Health Survey (PeNSE).

The current study showed that, in 2019, there was higher prevalence of absences from school due to insecurity on the way or at the school itself among girls; in turn, among boys, this prevalence was related to physical fights and to fights with firearm or melee weapon use. In 2019, the prevalence of accidents and violence against adolescents was high, with the boys as main victims. In 2019, exposure to situations of violence on the way or at the school itself and fights with use of weapons occurred mainly in public schools; however, the occurrence of

accidents and aggression was higher in private institutions. In the comparison between 2015 and 2019, there was a reduction in physical fights and with firearm and melee weapon use in the last year studied; on the other hand, there was stabilization in school absences due to insecurity on the way from home to school and to insecurity at school.

Violence and violent behaviors are exacerbated in conditions of structural inequalities between residents of degraded urban spaces and the outskirts of cities, with

little or no public security and high occurrence of police violence events.<sup>7</sup> In addition, violence is part of society's daily life and drags children and adolescents with it.<sup>8</sup> The prevalence of school absences due to insecurity on the way or in the school itself was higher among girls. Between 2015 and 2016, acknowledging this problem, mostly young women mobilized the “#Vamosjuntas?” (“#Letsgotogether”) hashtag. This movement aimed at building, via social networks, solidarity networks to prevent violence against women in public spaces and encourage partnership among women to walk together in the broadest sense of solidarity between them.<sup>9</sup>

The sensation of insecurity both on the way to school and at the school itself also affected more students from public institutions. In 2009, results from PeNSE showed that insecurity on the way from home to school was reported by 6.4% of the students surveyed, and insecurity at school by 5.5%.<sup>10</sup> This prevalence has increased, which indicates worsening in student safety. It is worth noting that the type of school, public or private, emerged as a proxy for the socioeconomic condition. In addition, some public schools are located in places of greater vulnerability, on the outskirts of large cities, with less structure and security, which can explain these results.<sup>10,11</sup>

A study carried out with students from eight public Elementary and High Schools in the state of Maranhão, Northeast region of the country, identified that 70% of the students consider the place where they live and study to be dangerous, feeling insecure on the way from home to school and at the bus stops. In addition to that, nearly 22% of the students call the school a space for violence.<sup>11</sup> In the United States, the National Youth Risk Behavior Survey System (YRBSS), carried out with High School students, showed that approximately 9% of the students dropped out school because they did not feel safe on the way from home to school.<sup>12</sup> The public schools studied concentrate nearly 80% of the adolescents and have a higher proportion of mothers with low schooling levels, which reflects social inequalities and inequities in the distribution of resources and equipment.<sup>4</sup> Thus, these schools are not configured as violent spaces but, as they are inserted in contexts of structural violence, they mirror these characteristics and the violence of the surroundings, which ends up penetrating their walls.<sup>10,11</sup>

The female adolescents who participated in this study are also those that suffer intrafamily violence the most, with family members and guardians as perpetrators. This type of violence is related to weak

family ties, use of psychoactive substances,<sup>13</sup> inequalities in income distribution and unemployment<sup>14</sup>, and structural violence against girls and women.<sup>15</sup>

In this study, in addition to the marking presence of intrafamily violence (which affected nearly one fourth of the female adolescents), its predominance among adolescents attending private schools stands out. This data corroborates a well-discussed fact in the literature: intrafamily violence occurs in different social strata, even in the richest families, as herein identified.<sup>10</sup> In this case, there is the possibility of violence understood as physical punishment intended to establish limits for behaviors considered inappropriate by the children. Oftentimes, this type of violence persists because family members consider it educational in nature as a constant means of dialogue between the aggressor and adolescents.<sup>16</sup> In addition, intrafamily violence may not be recognized or have a distorted perception by adolescents, being even naturalized in family relationships and in the community. In this sense, it is important that both schools and other sectors discuss and point to the various possible forms and situations of violence, so that they are not naturalized.<sup>10</sup>

On the other hand, this study showed that boys were more involved in physical fights and in fights where firearms or melee weapons were used. The current study showed that one tenth of the students reported having engaged in a physical fight in the last year. The Health Behavior in School-aged Children (HBSC) survey, carried out in Europe and Canada, showed that boys were more likely than girls to be involved in a fight three or more times in the last 12 months, with 15% and 5% respectively. In addition to that, this difference in relation to gender was observed in almost all the countries studied.<sup>17</sup> Although in low frequency, the reports of involvement in fights with firearm and melee weapon use draw the attention, as they have the potential for serious injuries and even risk of death. It is noted that there was a reduction of this practice between 2015 and 2019; however, the occurrence profile remained similar, being more frequent among boys and in public schools.

A study<sup>18</sup> that analyzed adolescents aged from 12 to 17 years old in the USA between 2002 and 2019 showed a significant increase in the prevalence of self-reported gun carrying among these adolescents, mainly from 2015, although with a change in the pattern of the groups with higher prevalence. Regarding

white-skinned adolescents, they recorded an increase from 3.1% to 5.3%, and the prevalence among their white-skinned counterparts dropped from 4.0% to 3.2%. In addition, among higher-income adolescents, the prevalence of gun carrying almost doubled, from 2.6% to 5.1%, while among low-income adolescents, there was a reduction in prevalence (from 4.3% to 3.7%). This change in the sociodemographic pattern of access to guns could be a justification for the drop in gun violence among Brazilian adolescents, who are mostly black-skinned and low-income. However, it is necessary to conduct other studies to fully understand this change.

The prevalence of students who stated having suffered an accident or aggression in the last year was high, approximately 18%, and most of them were male and attended private schools. Accidents and aggressions make up the group of external causes of morbidity and mortality and, together, account for nearly 12% of total deaths and approximately 15% of the total "Disability-Adjusted Life Years (DALYs)" lost in Brazil.<sup>19</sup> Regarding the aggressions, in the period from 2011 to 2017, of the total notifications of interpersonal violence and self-inflicted violence in Brazil, 26.2% were among adolescents, most of whom were girls aged between 15 and 19 years old.<sup>20</sup> These data show the severity of this problem in the adolescent population.

In 2019, most of the school absences due to insecurity reasons on the way from home to school were observed in Rio de Janeiro. In the survey carried out in 2015, the highest prevalence values of absences were in the states of Maceió and Belém.<sup>10</sup> Another study with data from PeNSE showed that higher mean variations in absence from classes due to insecurity on the way from home to school were observed in Cuiabá.<sup>21</sup> In this study, fights involving firearm use were more prevalent in the state of Roraima. A study with data from PeNSE 2015 showed that the capital cities with the highest prevalence of involvement in fights with firearm use were Boa Vista-RR and Goiânia-GO.<sup>21</sup> This insecurity reflects the structural violence in peripheral neighborhoods, where there is precariousness and absence of the State in maintaining basic living conditions, increasing the adolescents' vulnerability. The absence of a political project for citizenship and protection of rights hinders performance of the school's role in the training and protection of young people.<sup>8</sup>

Finally, it is emphasized that violence is a problem that causes significant harms to adolescents, such as physical injuries and psychological and social damage,

which reinforces the importance of care and social protection networks for this population segment.<sup>22</sup> Thus, actions such as public security, supervision of students in the school environment and psychological support for adolescents victims of violence at home and at school should be prioritized.<sup>10</sup> The Statute of Children and Adolescents (Estatuto da Criança e do Adolescente, ECA), established by Law No. 8,069 in 1990, guarantees special rights and integral protection to adolescents, in addition to the mandatory notification, by health professionals, of suspected or confirmed cases of violence and ill-treatment. Despite what is observed in the results of the current study, in recent years in Brazil, we have experienced countless setbacks in the rights guaranteed by the ECA, such as the discussion about the reduction of the age of criminal responsibility, the attacks on the disarmament statute, the flexibilization of the access to weapons,<sup>23</sup> the attack on policies aimed at eradicating gender-based violence in schools,<sup>24</sup> and the increase in poverty and the reduction of investment in social programs.<sup>25</sup>

Among the limitations, we emphasize that PeNSE does not represent all the Brazilian adolescents but only those attending school. It is possible that the data are underestimated, as violence in this population group tends to be higher due to the life phase itself. Adolescence is a period marked by deep emotional instability, vulnerabilities and inequalities in terms of opportunities, among other aspects. However, PeNSE is considered as the broadest survey conducted with adolescents in the country. The questionnaire is self-reported; therefore, it is subjected to information bias. Thus, the results can be under- or over-estimated depending on the lower or higher social acceptance of the behaviors investigated. In addition to that, it was not possible to compare all the indicators evaluated due to the changes implemented in the survey in 2019.

## CONCLUSION

It is concluded that, in 2019, the prevalence of school absences due to insecurity reasons on the way from home to school or at the school itself is higher among the girls; on the other hand, the boys engaged in more fights and weapon use. In addition to that, these exposures occurred mainly in the public schools. The prevalence of accidents and aggressions in 2019 was high, especially



in private schools. When comparing 2015 to 2019, there was a reduction in fights and in weapon use.

These results evidence the exposure to situations of violence experienced by Brazilian adolescents and their particularities according to gender. In addition to suffering violence in the intrafamily/domestic environment, they are exposed to it in the school or community environment; therefore, both institutions should be able to guarantee adolescents' protection and healthy and safe development. In this scenario, it becomes fundamental that the governments prioritize investment in public security, in addition to actions and strategies to prevent and face all forms of violence in schools and communities. Adequate training of professionals in education, health and other areas is indispensable so that they can deal with this specific population, given that adolescents are undergoing a phase of psychological, physical and social shaping. Finally, we emphasize that there is no way to solve violence with violence, a recurring scenario in our country by military corporations, but with education and socialization.

## REFERENCES

- World Health Organization (CH). Global status report on preventing violence against children 2020: executive summary. Geneva: World Health Organization; 2020[cited 2022 Feb 13]. Available from: <https://www.who.int/publications/i/item/9789240006379>
- Fundo das Nações Unidas para a Infância (US). Panorama da violência letal e sexual contra crianças e adolescentes no Brasil. Fundo das Nações Unidas para a Infância, 2021[cited 2022 Feb 13]. Available from: <https://www.unicef.org/brazil/media/16421/file/panorama-violencia-letal-sexual-contra-criancas-adolescentes-no-brasil.pdf>
- Grupo de Trabalho da Sociedade Civil para a Agenda 2030. V Relatório Luz da Sociedade Civil Agenda 2030 de Desenvolvimento Sustentável Brasil; 2021[cited 2022 Feb 13]. Available from: <https://action4sd.org/wp-content/uploads/2021/07/Brazil-spotlight-report-2021-portuguese-3.pdf>
- Instituto Brasileiro de Geografia e Estatística (BR). Pesquisa Nacional de Saúde do Escolar - PeNSE 2019. Instituto Brasileiro de Geografia e Estatística; 2021[cited 2022 Feb 13]. Available from: <https://biblioteca.ibge.gov.br/visualizacao/livros/liv101852.pdf>
- Malta DC, Minayo MCS, Cardoso LSM, Veloso GA, Teixeira RA, Pinto IV, et al. Mortalidade de adolescentes e adultos jovens brasileiros entre 1990 e 2019: uma análise do estudo Carga Global de Doença. *Ciênc Saúde Colet*. 2021[cited 2022 Feb 13];26(9):4069-86. Available from: <https://doi.org/10.1590/1413-81232021269.12122021>
- Oliveira MM, Campos MO, Andreazzi MAR, Malta DC. Características da Pesquisa Nacional de Saúde do Escolar - PeNSE. *Epidemiol Serv Saúde*. 2017[cited 2022 Feb 13];26(3):605-16. Available from: <https://doi.org/10.5123/S1679-49742017000300017>
- Reichenheim ME, Souza ER, Moraes CL, Mello Jorge MHP, Silva CMFP, Minayo MCS. Violence and injuries in Brazil: the effect, progress made, and challenges ahead. *Lancet*. 2011[cited 2022 Feb 13];377(9781):1962-75. Available from: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(11\)60053-6/fulltext#](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)60053-6/fulltext#)
- Silva LF, Freire JL, Prado LM. Cidadania e Violência Estrutural. *Rev Bras Educ Cultura*. 2018[cited 2022 Feb 13];17:94-103. Available from: <https://periodicos.cesg.edu.br/index.php/educacaoecultura/article/view/348>
- Santos MEM. Redes de mulheres e o ativismo feminista no Facebook: uma análise histórica das fanpages "Não me kahlo" e "Vamos juntas?" [dissertação]. Goiânia: Universidade Federal de Goiás; 2019.
- Malta DC, Souza ER, Silva MMA, Silva CS, Andreazzi MAR, Crespo C, et al. Vivência de violência entre escolares brasileiros: resultados da Pesquisa Nacional de Saúde do Escolar (PeNSE). *Ciênc Saúde Colet*. 2010[cited 2021 Dec 12];15(suppl 2):3053-63. Available from: <https://doi.org/10.1590/S1413-81232010000800010>
- Macedo RMA, Bomfim MCA. Violências na escola. *Rev Diálogo Educ*. 2009[cited 2021 Dec 12];9(28):605-18. Available from: <https://www.redalyc.org/pdf/1891/189114443014.pdf>
- Center for Disease Control (US). Trends in the Prevalence of Behaviors that Contribute to Violence on School Property National YRBS: 1991-2019. 2020[cited 2021 Dec 12]. Available from: [https://www.cdc.gov/healthyyouth/data/yrbs/pdf/trends/2019\\_violence\\_school\\_property\\_trend\\_yrbs.pdf](https://www.cdc.gov/healthyyouth/data/yrbs/pdf/trends/2019_violence_school_property_trend_yrbs.pdf)
- Antunes JT, Machado ÍE, Malta DC. Fatores de risco e proteção relacionados à violência intrafamiliar contra os adolescentes brasileiros. *Rev Bras Epidemiol*. 2020[cited 2021 Dec 12];23(suppl 1):e200003. Available from: <https://doi.org/10.1590/1980-549720200003.supl.1>
- Souza GS, Magalhães FB, Gama IS, Lima MVN, Almeida RLF, Vieira LJES, et al. Determinantes sociais e sua interferência nas taxas de homicídio em uma metrópole do Nordeste brasileiro. *Rev Bras Epidemiol*. 2014[cited 2021 Dec 12];17(suppl 2):194-203. Available from: <https://doi.org/10.1590/1809-4503201400060016>
- Pinto IV, Bernal RTI, de Souza M de FM, Malta DC. Factors associated with death in women with intimate partner violence notification in Brazil. *Ciênc Saúde Colet*. 2021[cited 2021 Dec 12];26(3):975-85. Available from: <https://doi.org/10.1590/1413-81232021263.00132021>
- Nunes CB, Sarti CA, Ohara CVS. Concepções de profissionais de saúde sobre a violência intrafamiliar contra a criança e adolescente. *Trab Educ Saúde*. 2015[cited 2021 Dec 12];13(suppl 2):79-95. Available from: <https://doi.org/10.1590/1981-7746-sip00083>
- Inchley J, Currie D, Budisavljevic S, Torsheim T, Jåstad A, Cosma A, et al. Spotlight on adolescent health and well-being. Findings from the 2017/2018 Health Behaviour in School-aged Children (HBSC) survey in Europe and Canada. WHO Regional Office for Europe; 2020[cited 2021 Dec 12]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/332091/9789289055000-eng.pdf>
- Carey N, Coley RL. Prevalence of adolescent handgun carriage: 2002-2019. *Pediatrics*. 2022[cited 2021 Dec 12];149(5):e2021054472. Available from: <https://doi.org/10.1542/peds.2021-054472>
- Institute for Health Metrics and Evaluation (US). GBD Compare, Viz Hub. Institute for Health Metrics and Evaluation; 2019[cited 2021 Dec 12]. Available from: <https://vizhub.healthdata.org/gbd-compare/>

20. Pereira VOM, Pinto IV, Mascarenhas MDM, Shimizu HE, Ramalho WM, Fagg CW. Violências contra adolescentes: análise das notificações realizadas no setor saúde, Brasil, 2011-2017. *Rev Bras Epidemiol*. 2020[cited 2022 Jan 15];23(suppl 1):e200004. Available from: <https://doi.org/10.1590/1980-549720200004.supl.1>
  21. Pinto IV, Barufaldi LA, Campos MO, Malta DC, Souto RMCV, Freitas MG, et al. Tendências de situações de violência vivenciadas por adolescentes brasileiros: Pesquisa Nacional de Saúde do Escolar 2009, 2012 e 2015. *Rev Bras Epidemiol*. 2018[cited 2022 Jan 15]; 21(suppl 1):e180014. Available from: <https://doi.org/10.1590/1980-549720180014.supl.1>
  22. Fernandes ESF, Santos AM. Desencontros entre formação profissional e necessidades de cuidado aos adolescentes na Atenção Básica à Saúde. *Interface Comun Saúde Educ*. 2020[cited 2022 Jan 15];24:e190049. Available from: <https://doi.org/10.1590/Interface.190049>
  23. Malta DC, Souza ER. A Busca por Sociedades Pacíficas. *Rev Bras Epidemiol*. 2020[cited 2022 Jan 15];23(suppl 1). Available from: <https://doi.org/10.1590/1980-549720200001.supl.1>
  24. Reis T, Eggert E. Ideologia de gênero: uma falácia construída sobre os planos de educação brasileiros. *Educ Socied*. 2017[cited 2022 Jan 15];38:(138):09-26. Available from: <https://doi.org/10.1590/ES0101-73302017165522>
  25. Rasella D, Basu S, Hone T, Paes-Sousa R, Ocké-Reis CO, Millett C. Child morbidity and mortality associated with alternative policy responses to the economic crisis in Brazil: a nationwide microsimulation study. *Plos Med*. 2018[cited 2022 Jan 15]; 15(5):e1002570. Available from: <https://doi.org/10.1371/journal.pmed.1002570>
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