


PREVALENCE AND FACTORS ASSOCIATED WITH ADOLESCENT VICTIMS AND PERPETRATORS OF *BULLYING* IN THE NORTHERN REGION

 <https://doi.org/10.56238/arev6n4-167>

Submitted on: 11/11/2024

Publication date: 11/12/2024

Renata Ferreira dos Santos¹, Elaine Cristina Santana Cordovil², Winnie Lagoa de Souza³ and Rafael José de Castro Costa⁴

ABSTRACT

Bullying is defined as a form of violence that occurs in the school environment, characterized by aggressive and repetitive behaviors with the purpose of hurting or causing discomfort. This phenomenon can generate consequences in the short, medium and long term, in addition to being associated with the adoption of practices that put health at risk. The present study aims to investigate the relationship between categories of bullying in adolescents and associated factors. Data from the National School-based Health Survey (PeNSE 2015) were used, whose sample includes students in the 9th grade of elementary school from public and private schools in the Northern Region of Brazil. The frequency of reporting bullying among the categories of schoolchildren was higher among boys (19%), aged 15 years or older (16.7%). All variables were associated with the three categories of bullying, victim, perpetrator, and victim/perpetrator, except for the variables "family supervision of homework" (OR=0.62; 95%CI 0.53 – 0.72) and "free time" (OR=0.52; 95%CI 0.46 – 0.60) proved to be a protective factor for the perpetrators. The perpetrators of bullying have health risk behaviors such as: regular unhealthy eating, consumption of alcohol, drugs, tobacco, sexual intercourse without a condom and sedentary lifestyle, in addition to missing more classes without informing their parents.

Keywords: Adolescents, Violence, Schools, Risk behavior, Bullying, North Region.

¹ Dr. in Public Health

University of the State of Amazonas – UEA

E-mail: rfdosantos@uea.edu.br

ORCID: <https://orcid.org/0000-0002-1794-2737>

LATTES: <http://lattes.cnpq.br/7517167539335837>

² Master of Public Health

University of the State of Amazonas – UEA

E-mail: ec.cordovil@gmail.com

ORCID: <https://orcid.org/0000-0003-4703-8295>

LATTES: <http://lattes.cnpq.br/1839028238590149>

³ Master in Urban Biology

Faculdade Alcance – FAAL

E-mail: winnie_lagoa@hotmail.com

ORCID: <https://orcid.org/0000-0002-7048-8342>

LATTES: <http://lattes.cnpq.br/3781817148829870>

⁴ Nursing Student

University of the State of Amazonas – UEA

E-mail: rjdcc.enf21@uea.edu.br

ORCID: <https://orcid.org/0009-0002-0982-9483>

LATTES: <http://lattes.cnpq.br/3108081878891862>

INTRODUCTION

Bullying is conceptualized as a type of violence practiced in the school space, which involves repetitive violent behaviors with the intention of hurting and/or disturbing. Bullying or victimization can cause short, medium and long-term repercussions, as well as the adoption of health risk behaviors (Francisco, Libório, 2009; Azeredo, 2015). Individuals involved in *bullying* can be classified into four categories: victim (targets); perpetrators (aggressors); bystanders (witnesses); and victims and perpetrators (targets and aggressors) (Fante, 2005). Such characteristics are fundamental for the delineation of the profiles of the aggressors (Calhau, 2009).

Several studies have been developed in several countries and show different prevalences of both victimization and perpetration (Fante, 2005; Francisco, Libório, 2009). A relevant survey *The Youth Risk Behavior Surveillance System* (YRBSS), conducted from 2008 to 2010 in the USA, conducted with students, observed a prevalence of 19.9% of *bullying* (Eaton *et al.*, 2010).

The data pointed out by are in line with those presented by PeNSE in 2009, which, according to a survey carried out in schools in the metropolitan region of São Paulo with 803 students, a prevalence of 15.2% and 20.3% of one or more episodes of violence in the school environment and involvement in fights were observed in the 12 months prior to the survey in adolescents from public schools (mostly black, low socioeconomic level, whose parents had a low level of education) and in private schools (brown, with medium socioeconomic level, whose parents had a more advanced level of education), respectively (Carlini-Cotrim *et al.*, 2015).

The results of the 2015 National School-based Health Survey (PeNSE) found a prevalence of 7.4% of students who were victims of *bullying* in public and private schools (Mello *et al.*, 2017). *Bullying* brings a range of consequences, which occur both in individual environments and in family and social environments, which affects the well-being of entire communities (Sprinthall *et al.*, 1999; Ribeiro, 2005; Oliveira *et al.*, 2015).

From this perspective, *bullying* is a worrying and recurrent theme in the school context. Although it is a universal phenomenon, studies have shown national differences when investigating regional differences between states, which are important in the prevalence and factors associated with this phenomenon of violence. Although there are already studies analyzing the results of the WHO survey in the world, some studies analyzing the results of PeNSE in Brazil, *bullying* is still a poorly studied phenomenon, and

most studies describe the phenomenon involving victims and aggressors in the school environment, using descriptive analyses, restricting themselves to individual characteristics.

In this sense, the present study aims to investigate the relationship between categories of *verbal bullying* in adolescents and their associated factors.

METHODOLOGY

This is a descriptive cross-sectional study, which used data from the National School-based Health Survey (PeNSE), conducted between April and September 2015. It is an epidemiological survey, carried out by the IBGE in partnership with the Ministry of Health with the objective of monitoring risk factors in the young population of Brazilian capitals (IBGE, 2016). PeNSE included students aged 13 to 15 years attending the 9th grade (8th grade), attending elementary school in public and private schools in the capitals of the Brazilian states and the Federal District, between April and September 2015.

In this article, data from 714 schools in the seven states of the North Region (Acre, Amapá, Amazonas, Rondônia, Roraima, Pará and Tocantins) were used. The sample size of the North Region was $n = 23,777$ (82.6%). Night shifts and school shifts from 13 to 17 years of age attending the stages of the 6th to the 9th grade of elementary school (former 5th to 8th grades) from public and private schools in other regions of Brazil were not included in this sample (IBGE, 2016)

The following sets of variables were used: categories of bullying occurrence, risk behaviors, behaviors related to the student's school and family life, as well as sociodemographic and body image variables.

PeNSE 2015 included questions about socioeconomic aspects; family context; *bullying*, eating habits; physical activity; violence, safety, among other aspects. The sociodemographic variables analyzed were: Gender, Age, Color/race, mother's education and administrative dependence of the schoolchild (public or private). The variables of the family context analyzed were: family supervision of free time, missing classes without the authorization of those responsible, family supervision of homework, family members understand their problems, parents mess with their children's things, feeling alone, insomnia, friends, sexual violence.

Four categories were created for the occurrence of *bullying*: does not suffer/or practice, victim, perpetrator and victim/perpetrator. In this study, only verbal bullying was considered. Students were classified as victims of *bullying* when they answered yes to the

question: "In the last 30 days, how often have any of your classmates at your school mocked, mocked, mocked, intimidated or made fun of you so much that you were hurt/annoyed/upset/offended/humiliated?" Responses were categorized as "No" (never, rarely, sometimes) and "Yes" (most of the time, always).

They were classified as perpetrators of *bullying* when they answered yes to the question: "In the last 30 days, have you mocked, mocked, mocked, intimidated, or made fun of any of your classmates at school, so much so that they were hurt, upset, offended or humiliated?" The answers were categorized as "Yes or No". Those who answered "yes" to both victim and perpetrator were classified as "victim/perpetrator" (i.e., both bullied and *bullied*). This category and the categories "victim" and "perpetrator" are mutually exclusive. The others (those who answered no to both questions were classified as "does not suffer/practice" *bullying*.

The first stage of data analysis aimed to calculate the prevalence according to the categories of *bullying* according to sociodemographic variables, family context, body image. Pearson's chi-square test was used. To evaluate the association between bullying and family and self-image characteristics, multinomial regression analyses were performed, whose dependent variable was the bullying categories, and the variables of family context and body image as independent variables. The reference category for the outcome was neither being *bullied nor bullied*. In all models, the following variables were included as adjustment variables: sex, age, color/race, type of school, and mother's schooling, and sample weights and complex sample design were considered. The data were analyzed using the Stata 14 software program (StataCorp, 2014).

RESULTS AND DISCUSSION

In relation to gender, the prevalence of perpetrators among boys (19.2% compared to 12.9% among girls) stands out; higher prevalence of victims among those of yellow color/race (7.4% compared to brown, white and indigenous, with approximately 4% each); and the highest prevalence of victim (5.0%) and victim/perpetrator (2.4%) was observed among adolescents whose mothers had no schooling or incomplete primary education (Table 1).

Table 1. Characterization of the sociodemographic aspects of adolescents in the 9th grade of Elementary School according to the categories of *Bullying*, North Region, Brazil, 2015.

Variables	Categorias de <i>Bullying</i>								p-value*
	Doesn't suffer/practice e (n=18,187)		Victim (n=1,085)		Perpetrator (n=3,968)		Victim/ Perpetrator (n=537)		
	n	%	n	%	n	%	n	%	
Sex									< 0,001
Male	8.439	74,4	504	4,1	2.321	19,2	345	2,3	
Female	9.748	81,1	581	4,4	1.647	12,9	192	1,6	
Age									0,042
≤ 14 years old	11.828	78,1	750	4,7	2.515	15,4	334	1,8	
15 and +	6.359	77,5	335	3,7	1.453	16,7	203	2,1	
Type of school									0,014
Public	16.257	78,2	972	4,3	3.504	15,6	463	1,9	
Private	1.930	74,2	113	3,9	464	18,9	74	3,0	
Color/Race\$#									0,040
White	4.457	77,6	240	4,2	902	16,1	126	2,1	
Black	2.077	75,5	133	5,4	478	17,2	85	1,8	
Yellow	688	74,8	54	7,4	189	15,9	21	1,8	
Brown	10.264	78,7	616	3,9	2.253	15,6	272	1,9	
Indigenous	686	75,4	42	4,5	145	17,3	30	2,7	
Mother's Education									
None or incomplete FE	4.226	76,3	270	5,0	838	16,4	112	2,4	0,009
Complete PE or Incomplete EM/Higher Education	6.385	80,1	369	3,8	1.468	14,5	177	1,6	
Complete Superior	2.977	77,0	195	4,3	683	16,9	101	1,8	

* Pearson's Chi-Square test, § Self-reported information.

Regarding the variables that characterized the aspects of the adolescents' mental health, the highest prevalence of victims among those who reported feeling alone (10.6% vs. 3.0%); and among those who reported suffering insomnia (10.4% vs. 3.5%). The prevalence of perpetrators in these categories was also higher, especially among those who reported suffering insomnia (20.4% vs. 15.3%) (Table 2).

Table 2. Characterization of the mental health of adolescents in the 9th grade of Elementary School according to the categories of *Bullying*, North Region, Brazil, 2015.

Categorias de <i>Bullying</i>										p-value*
Variables	Doesn't suffer/practice		Victim		Perpetrator		Victim/ Perpetrator			
	n	%	n	%	n	%	n	%		
Feeling alone									<0,001	
Yes	2.687	68,1	437	10,6	775	17,9	159	3,4		
No	15.483	79,8	646	3,0	3.190	15,6	377	1,7		
Insomnia									<0,001	
Yes	1.777	65,3	275	10,4	551	20,4	128	3,8		
No	16.387	79,4	810	3,5	3.409	15,3	407	1,7		
Friends									0,031	
None	745	74,0	89	6,7	161	16,7	32	2,6		
1 or more	17.41	78,0	996	4,2	3.802	15,9	504	1,9		

* Pearson's Chi-Square Test

Regarding the adolescents' perceptions of their body image, the highest prevalence of victims was observed among those who considered their bodies to be too fat (16.4%), among those who considered their body image unimportant (8.8%) and among those who reported being indifferent or dissatisfied with their bodies (8.1%). The prevalence of perpetrators was more stable among all categories studied. In relation to those who reported being *bullied*, the highest prevalences were among those who considered their body too fat (6.8%), among those who considered their body image unimportant (3.4%) (Table 3).

Table 3. Characterization of the body image of adolescents in the 9th grade of Elementary School according to the categories of *Bullying*, North Region, Brazil, 2015.

Variables	Categorias de <i>Bullying</i>								p-value*
	Doesn't suffer/practice		Victim		Perpetrator		Victim/ Perpetrator		
	n	%	n	%	n	%	n	%	
You consider your body									<0,001
Very skinny and skinny	4.535	75,3	311	4,7	1.066	17,6	166	2,4	
Normal	10.869	80,5	479	3,2	2.198	14,8	236	1,5	
Fat	2.393	73,1	215	6,7	599	17,6	100	2,6	
Very fat	250	61,7	74	16,4	76	15,1	25	6,8	
You consider your body image									<0,001
Important	15.324	78,9	822	3,8	3.278	15,6	400	1,8	
Unimportant	1.977	73,1	147	6,5	463	17,8	82	2,7	
Unimportant	739	69,4	113	8,8	200	18,4	46	3,4	
Feeling about your body									<0,001
Satisfied	13.891	80,3	601	3,1	2.837	15,1	324	1,6	
Indifferent	1.618	68,8	166	8,2	432	20,0	77	3,0	
Unsatisfied	2.516	71,0	313	8,1	669	17,8	127	3,1	

* Pearson's Chi-Square Test

It was observed that 21.4% of the adolescents were absent between one or more days of school without informing their parents, a little more than half (60.7%) had family supervision during the student's free time. However, when it comes to family supervision of the adolescent's homework, this percentage decreased to 32.9%. Adolescents who reported having family members who understand their problems were 41.1%. Adolescents who revealed that their parents went through their things without their agreement was 11.8%.

For this set of variables, the highest prevalence of bullying victims stands out among those who reported that their parents touched their things (10.6% vs. 3.0%) and who suffered sexual violence (7.4% vs. 4.1%). In this last variable, the prevalence of perpetrators, victims and perpetrators were also higher (24.6% vs. 15.4 and 6.9% vs. 1.7%, respectively). Higher prevalences for these two categories of *bullying* were also observed among those who reported missing school 3 times or more per week compared to those who never missed school (26% vs. 14.3%: perpetrators; 5.2% vs. 1.6%: victims/perpetrators) (Table 4).

Table 4. Characterization of the family context of adolescents in the 9th grade of Elementary School according to the categories of *Bullying*, North Region, Brazil, 2015.

Variables	Categorias de <i>Bullying</i>								p-value*
	Doesn't suffer/practice		Victim		Perpetrator		Victim/Perpetrator		
	n	%	n	%	n	%	n	%	
Missing classes									<0,001
3 or more times	971	62,5	74	6,3	402	26,0	81	5,2	
1 or 2 times	2.527	72,7	165	4,2	744	20,5	112	2,6	
Never	14.676	80,0	846	4,1	2.820	14,3	343	1,6	
Family supervision of free time									<0,001
Yes	11.591	81,6	655	4,3	1.924	12,5	249	1,7	
No	6.550	72,1	427	4,3	2.038	21,3	286	2,3	
Family homework supervision									<0,001
Yes	6.298	81,2	389	4,9	976	12,3	137	1,7	
No	11.856	76,2	696	4,0	2.981	17,8	395	2,1	
Family members understand their problems									<0,001
Yes	7.910	81,8	380	3,7	1.299	13,0	163	1,6	
No	10.236	75,1	702	4,7	2.659	18,0	373	2,2	
Parents mess with their children's things									<0,001
Yes	1.863	69,9	225	10,6	586	17,9	123	3,4	
No	16.286	79,8	859	3,0	3.374	15,6	413	1,7	
Sexual violence									<0,001
Yes	723	61,1	104	7,4	343	24,6	93	6,9	
No	17.379	78,8	978	4,1	3.605	15,4	438	1,7	

* Pearson's Chi-Square Test

Table 5 shows the associations between the types of *bullying* (dependent variable) and each of the variables in the blocks described above, adjusted for sociodemographic variables (gender, age group, type of school, color/race, mother's education). The measures of association are expressed in *Odds Ratio* (OR), obtained by multiple multinomial regression models (non-ordinal), whose reference category for the type of *bullying* is not being *bullied* at all; the reference category for the independent variables is marked with OR=1.00.

Of the 12 variables included in the model, only one (family members understand their problems) presented a protective factor for the three categories of *verbal bullying*. Three other variables were directly and equally associated between the three categories: (missing classes; parents handling their children's things; feelings about their bodies). The other variables showed different behavior among the types of *bullying*.

Table 5. Association between family context, mental health, and body image according to the categories of *Bullying*, North Region, Brazil, 2015.

Variables	Categorias de <i>Bullying</i>					
	Victim		Perpetrator		Victim/Perpetrator	
	OR	IC95%	OR	IC95%	OR	IC95%
Missing classes						
No	1,00	-	1,00	-	1,00	-
Yes	1,42	(1,13 - 1,78)	1,42	(1,30 - 1,81)	2,08	(1,62 - 2,67)
Family homework supervision						
No	1,00	-	1,00	-	1,00	-
Yes	1,24	(1,00 - 1,53)	0,62	(0,53 - 0,72)	0,78	(0,54 - 1,14)
Family members understand their problems						
No	1,00	-	1,00	-	1,00	-
Yes	0,67	(0,53 - 0,83)	0,60	(0,51 - 0,70)	0,62	(0,44 - 0,87)
Family supervision of free time						
No	1,00	-	1,00	-	1,00	-
Yes	0,82	(0,66 - 1,03)	0,52	(0,46 - 0,60)	0,72	(0,52 - 1,00)
Parents mess with their children's things						
No	1,00	-	1,00	-	1,00	-
Yes	2,22	(1,62 - 3,05)	1,39	(1,16 - 1,66)	2,39	(1,72 - 3,31)
Feeling alone						
No	1,00	-	1,00	-	1,00	-
Yes	4,37	(3,30 - 5,80)	1,44	(1,17 - 1,77)	2,72	(1,92 - 3,85)
Insomnia						
No	1,00	-	1,00	-	1,00	-
Yes	4,03	(3,00 - 5,45)	1,70	(1,43 - 2,03)	2,81	(1,96 - 4,03)
Friends						
No	1,00	-	1,00	-	1,00	-
Yes	0,63	(0,42 - 0,94)	0,89	(0,66 - 1,19)	0,75	(0,36 - 1,53)
Sexual violence						
No	1,00	-	1,00	-	1,00	-
Yes	2,22	(1,43 - 3,42)	2,34	(1,79 - 3,06)	6,18	(3,66 - 10,44)
You consider your body						
Normal	1,00	-	1,00	-	1,00	-
Very skinny and skinny	1,55	(1,20 - 2,02)	1,21	(1,01 - 1,46)	1,94	(1,27 - 2,95)
Fat	2,17	(1,60 - 2,97)	1,29	(1,04 - 1,61)	2,03	(1,37 - 3,02)
Very fat	6,08	(3,79 - 9,77)	1,21	(0,79 - 1,87)	6,26	(3,05 - 12,85)
You consider your body image						
Important	1,00	-	1,00	-	1,00	-
Unimportant	1,79	(1,31 - 2,45)	1,17	(0,96 - 1,43)	1,36	(0,88 - 2,11)
Unimportant	2,87	(2,00 - 4,11)	1,08	(0,81 - 1,44)	2,58	(1,49 - 4,49)
Feelings about the body						
Satisfied	1,00	-	1,00	-	1,00	-
Indifferent	3,29	(2,46 - 4,40)	1,66	(1,34 - 2,05)	1,63	(1,09 - 2,46)
Unsatisfied	2,83	(2,22 - 3,60)	1,55	(1,32 - 1,81)	2,28	(1,56 - 3,32)

Adjusted for sociodemographic variables (Sex, Age, Color/race, Type of school, and Mother's education level)

DISCUSSION

All variables of school and family context, mental health, and body image were associated with some category of *bullying*. It was observed in relation to the gender variable, the highest prevalence of bullying perpetration was among male adolescents. Several studies indicate in their results that the perpetration of *bullying* is more prevalent

among male adolescents, such evidence can be found in national and international studies (Matos, Carvalhosa, 2001; Bowman *et al.*, 2004; Moraes *et al.*, 2012; Mello *et al.*, 2017; Marcolini *et al.*, 2018).

A possible explanation for this phenomenon is that boys have a more aggressive and explosive interaction with their peers compared to girls, which results in more cases of this type of violence (Matos *et al.*, 2001). Boys had a greater psychological need to reveal physical strength, which, associated with biological aspects, such as size and strength, and social factors, adolescents used physical aggression to perpetrate *bullying* (Seals, Young, 2003; Obrdalj *et al.*, 2013).

Regarding age, it should be noted that adolescents aged 15 years and over showed a small difference in prevalence for the perpetrator category (16.7% vs. 15.4%) of *bullying* in relation to those adolescent perpetrators aged ≤ 14 years. This result is in line with studies conducted in North America, South America, and Europe, which also revealed a higher prevalence of bullying perpetration in this age group (Andrade *et al.*, 2012; Oliveira *et al.*, 2016; Mello *et al.*, 2017).

It was observed that there is a higher prevalence of the bullying perpetrator category in private schools, and victims in public schools. The socioeconomic level and social status of the student can contribute to a greater chance of bullying perpetration (Santana *et al.*, 2016; Mello *et al.*, 2017).

Bullying was reported by 23.6% (95%CI 22.8-24.4) among adolescents enrolled in private schools, while 20.3% (95%CI 18.6-22.1) in public schools, also revealing that students enrolled in public schools were less likely to bully (OR= 0.87; 95%CI 0.78-0.97) (Malta *et al.*, 2014). With regard to color/race, the highest prevalence of perpetrators was among respondents who declared themselves indigenous (17.3%) and black (17.2%), this result is similar to other studies (Malta *et al.*, 2014; Oliveira *et al.*, 2015; Mello *et al.*, 2017).

The relationship between color/race and *bullying* can be expected, because, in many cases, a small number of adolescents of a certain ethnicity/skin color can cause an imbalance of power and, thus, they become potential victims of peers who represent an ethnic majority (Felix, You, 2011). It is also important to consider the issues of social, discriminatory and cultural dynamics related to intolerance and prejudice, which are also predictors of *bullying* (Oliveira *et al.*, 2016; Silva *et al.*, 2018).

The frequency of reporting bullying in any of the categories analyzed was higher among adolescents who reported missing classes more frequently. It is pointed out that it is

not possible to identify the direction of the association between *bullying* and missing class. The practice of missing classes without telling parents is associated with bullying victimization, this can be analyzed as a form of self-protection, with the aim of avoiding suffering new aggressions, in addition to demotivation (Sampaio *et al.*, 2015) for having negative feelings such as fear, not wanting to go to class, being angry and worried (Lopes Neto, Saavedra, 2003); and/or by the possible lack of interventions or school supervision, or even weakened relationships between teachers and students (Jalón, Arias, 2013; Rocha *et al.*, 2013; Nygren *et al.*, 2014).

In general, missing classes without telling parents was associated with having been victims of *bullying* (Youngblad *et al.*, 2007; Andrade *et al.*, 2012; Mello *et al.*, 2016; Oliveira *et al.*, 2017). Perpetrators missed classes almost twice as often (OR = 1.83) when compared to victims (Oliveira *et al.*, 2016). Unlike the victims, the motivation that leads the perpetrators to miss classes is related to the consumption of alcoholic beverages (Malta *et al.*, 2014).

It was observed that both in the supervision of free time and in the supervision of homework, the association was protective against *bullying* and null for suffering or practicing *bullying*. Another study also found a protective association for *bullies* whose interviewees reported parental supervision (OR = 0.64 95%CI 0.61-0.66) (Andrade *et al.*, 2012; Malta *et al.*, 2014; Mello *et al.*, 2017). The fact that parents understood their children's problems was also a protective factor for the occurrence of *bullying*, regardless of the category (Malta *et al.*, 2014).

Regarding the fact that parents messed with their children's things, there was an association between the three categories of *bullying*, with emphasis given to the force of lesser magnitude among the perpetrators. Thus, the importance of monitoring, presence and supervision of parents or guardians and/or family members in the process of cognitive and social development of adolescents is widely presented in the literature. The monitoring/supervision of those responsible can also prevent and/or reduce the prevalence of *bullying*. Performing family acts and practices, such as having at least one family meal a week, or being aware of what adolescents do in their free time, has produced protective effects for adolescents (Malta *et al.*, 2011). In contrast to this, the impoverished supervision and involvement of parents, the absence of references (César, 2010); parental criminality, parental separation (Matos, Gonçalves, 2009) and the relationship of distancing between parents and children (Azeredo *et al.*, 2015), can be considered risk factors for the

production and/or increase in the occurrence of *bullying* and violence among adolescents in the school environment.

Among those who reported feeling lonely or having insomnia, the magnitude of the effect was greater among victims of *bullying* compared to the other categories. It should also be noted that among adolescents who reported having friends, the association found was protective for the occurrence of *bullying victims* and null for the other categories. It is notorious in scientific evidence that the loneliness experienced in greater proportion by adolescents who suffer *bullying* may result from problems or sentimental difficulties, such as: fear, hopelessness and lowering of self-esteem (Albuquerque *et al.*, 2013); psychological suffering, learning impairments, possibilities of having antisocial personality disorder and violent behaviors in the future (Cruz *et al.*, 2011). Similarly, not having friends becomes a risk factor for being the target of *bullying* among adolescents (Smith *et al.*, 2002). Another worrying fact is that victims of *bullying* have few friends or lose their friendships as a result of violence (Lopes Neto *et al.*, 2011).

Having suffered sexual violence was more strongly associated with the victim/perpetrator category compared to the other categories. There are several reports in the literature of an association between suffering sexual violence and the occurrence of *bullying*, either as a victim or as a perpetrator (Hong *et al.*, 2016). observed that having had early sexual initiation, in addition to the frequent practice of sexual activity in adolescence, becomes a risk factor related to the perpetrators of *bullying*. A similar study observed that having suffered early sexual violence is considered a risk factor (OR=1.81; 95%CI 1.72-1.90; 95%CI) to become perpetrators of *bullying* (Mello *et al.*, 2017).

The incidence of sexual violence in adolescence may be related to the biopsychosocial immaturity of the victims, relational inexperience, initiation to sexuality, and non-recognition of their rights (Caridades, Machado, 2008; Restum, Fontes, 2012). Several studies indicate that sexual violence is a predictor of *bullying*, revealing the isolated association between being a victim (Youngblade *et al.*, 2007; Malta *et al.*, 2010; Azeredo *et al.*, 2015; Hertz *et al.*, 2015; Ortega *et al.*, 2016) or perpetrators of *bullying* (Zaine *et al.*, 2010; Azeredo *et al.*, 2015; Oliveira *et al.*, 2016; Zequinão *et al.*, 2016; Malta *et al.*, 2019).

Regarding body image variables, self-assessment of the body as very fat was more strongly associated with the victim and victim/perpetrator categories, compared to those who are only perpetrators. This phenomenon can be understood as the consequence of the stigmatized self-understanding that obese people are different from the standards of body

normality influenced by the media, and thus, they are laughed at due to their discordant appearance, and for not being considered normal by other adolescents (Mattos *et al.*, 2012)

Another study that also evaluated the relationship of adolescents who reported having some degree of dissatisfaction with their body image and *bullying*, found that they are more likely to become victims, especially in those who considered themselves "too fat" (Scutti *et al.*, 2014). Adolescents who were dissatisfied with their body image were three times more likely to be *bullied* (PR=3.24 95%CI 1.99-5.28) (Rech *et al.*, 2013).

There is a lack of studies that have compared variables of family context, mental health and body image in adolescents, and the categories victim, perpetrator and victim/perpetrator of *bullying*. This classification was motivated by the observation that these variables were associated with different magnitudes between victims and perpetrators in studies carried out in the country (Fante *et al.*, 2005; Lopes Neto *et al.*, 2005; Paula *et al.*, 2008; Malta *et al.*, 2010; Malta *et al.*, 2011; Rech *et al.*, 2013; Malta *et al.*, 2014; Kann *et al.*, 2014; Azeredo *et al.*, 2015; Oliveira *et al.*, 2016; Mello *et al.*, 2017).

The hypothesis tested was that the group composed of victims and perpetrators could have different characteristics from those who only suffer or practice *bullying*; hypothesis confirmed for some variables such as body image and sexual violence. It is, therefore, an unprecedented approach to the study of bullying categories .

CONCLUSION

It is a fact that the bullying phenomenon exposes schoolchildren to a condition susceptible to vulnerability, as we understand that *bullying* occurs within a broad social context and the motivations for such an act are diverse and have family, school, social and cultural contexts as determining factors. It is concluded that the perpetrators of *bullying* have more health risk behaviors, such as: regular unhealthy diet, consumption of alcohol, drugs, tobacco, sexual intercourse without a condom and sedentary lifestyle, in addition to missing more classes without informing the parents and, in the family context, had a protective effect for family supervision. It is apprehended from the study that the Brazilian school context continues to be a space for the reproduction of violence and that the school is not the only one responsible for the production of violence, as it is a complex, dynamic, multifaceted and multicausal phenomenon, with roots also in macrosocial, economic and sociocultural issues.

REFERENCES

1. Albuquerque, P. P. de, D'Afonseca, S. M., & Williams, L. C. de A. (2013). Efeitos tardios do bullying e transtorno de estresse pós-traumático: uma revisão crítica. *Psicologia: Teoria e Pesquisa*, 29(1), 91-98. <https://doi.org/10.1590/S0102-37722013000100011>
2. Andrade, S. S. C. A., Yokota, R. T. C., Sá, N. N. B., Silva, M. M. A., Araújo, W. N., Mascarenhas, M. D. M., et al. (2012). Relação entre violência física, consumo de álcool e outras drogas e bullying entre adolescentes escolares brasileiros. *Cadernos de Saúde Pública*, 28, 1725-1736. <https://doi.org/10.1590/S0102-311X2012000900011>
3. Azeredo, C. M. (2015). Características individuais e contextuais associadas ao bullying entre escolares no Brasil (Tese de doutorado). Faculdade de Medicina da Universidade de São Paulo, São Paulo.
4. Azeredo, C. M., et al. (2015). School bullying: a systematic review of contextual-level risk factors in observational studies. *Aggression and Violent Behavior*, 22, 65-76. <https://doi.org/10.1016/j.avb.2015.04.006>
5. Bowman, S. A., et al. (2004). Effects of fast-food consumption on energy intake and diet quality among children in a national household survey. *Pediatrics*, 113(1), 112-118. <https://doi.org/10.1542/peds.113.1.112>
6. Calhau, L. B. (2009). *Bullying: O que você precisa saber*. Rio de Janeiro: Impetus.
7. Caridade, S., & Machado, C. (2008). Violência sexual no namoro: relevância da prevenção. *Psicologia*, 22(1), 77-104. <https://doi.org/10.17575/rpsicol.v22i1.339>
8. Carlini-Cotrim, B., Gazal-Carvalho, C., & Gouveia, N. (2000). Comportamentos de saúde entre jovens estudantes das redes pública e privada da área metropolitana do Estado de São Paulo. *Revista de Saúde Pública*, 34(6), 636-645. <https://doi.org/10.1590/S0034-89102000000600012>
9. César, N. (2010). *Bullying: Preconceito, estigmas e desafios da educação para a paz*. Mato Grosso: [s.n.].
10. Cruz, A. C. N., Moura, D. R. de, & Quevedo, L. de A. (2011). Prevalência e características de escolares vítimas de bullying. *Jornal de Pediatria*, 8(1), 19-23. <https://doi.org/10.1590/S0021-75572011000100004>
11. Eaton, D. K., et al. (2010). Youth risk behavior surveillance - United States, 2009. *Morbidity and Mortality Weekly Report Surveillance Summaries*, 59(5), 1-142. <https://www.cdc.gov/mmwr/pdf/ss/ss5905.pdf>
12. Fante, C. (2005). *Fenômeno bullying: Como prevenir a violência nas escolas e educar para a paz*. Campinas: Verus Editora.
13. Felix, E. D., & You, S. (2011). Peer victimization within the ethnic context of high school. *Journal of Community Psychology*, 39(7), 860-875. <https://doi.org/10.1002/jcop.20465>

14. Francisco, M. V., & Libório, R. M. C. (2009). Um estudo sobre bullying entre escolares do ensino fundamental. *Psicologia: Reflexão e Crítica*, 22(2), 200-207. <https://doi.org/10.1590/S0102-79722009000200005>
15. Hertz, M. F., et al. (2015). Association between bullying victimization and health risk behaviors among high school students in the United States. *Journal of School Health*, 85(12), 833-842. <https://doi.org/10.1111/josh.12339>
16. Hong, J. S., Voisin, D. R., Cho, S., & Espelage, D. L. (2016). Association among subtypes of bullying status and sexually-risky behaviors of urban African American adolescents in Chicago. *Journal of Immigrant and Minority Health*, 18(5), 1007-1016. <https://doi.org/10.1007/s10903-016-0375-5>
17. Instituto Brasileiro de Geografia e Estatística - IBGE. (2016). DF: Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira - INEP. <http://portal.inep.gov.br/basicalevantamentos-acessar>. Acesso em: 20 nov. 2016.
18. Jalón, M. J. D.-A., & Arias, R. M. (2013). Peer bullying and disruption-coercion escalations in student-teacher relationship. *Psicothema*, 25(2), 206-213. <https://doi.org/10.7334/psicothema2012.312>
19. Kann, L., et al. (2014). Youth Risk Behavior Surveillance—United States, 2013. Morbidity and Mortality Weekly Report (MMWR). *Surveillance Summaries*, 63(SS-4). Centers for Disease Control and Prevention.
20. Lopes Neto, A. A. (2005). Bullying: comportamento agressivo entre estudantes. *Jornal de Pediatria*, 81(5), 164-172. <https://doi.org/10.1590/S0021-75572005000700006>
21. Lopes Neto, A. A., & Saavedra, L. H. (2003). Diga não para o bullying: programa de redução do comportamento agressivo entre estudantes. <https://www.acterj.org.br/downloads/arquivo/doc-154.pdf>. Acesso em: 16 set. 2018.
22. Lopes, N. A. A. (2011). *Bullying: Saber identificar e como prevenir*. São Paulo: Brasiliense.
23. Malta, D. C., et al. (2019). Prevalência de bullying e fatores associados em escolares brasileiros. *Ciência & Saúde Coletiva*, 24(4), 1359-1368. <https://doi.org/10.1590/1413-81232018244.15492017>
24. Malta, D. C., et al. (2014). Bullying and associated factors among Brazilian adolescents: analysis of the National Adolescent School-based Health Survey (PeNSE 2012). *Revista Brasileira de Epidemiologia*, 17, 131-145. <https://doi.org/10.1590/1809-4503201400050011>
25. Malta, D. C., et al. (2010). Bullying nas escolas brasileiras: resultados da Pesquisa Nacional de Saúde do Escolar (PeNSE), 2009. *Ciência & Saúde Coletiva*, 15(2), 3053-3063. <https://doi.org/10.1590/S1413-81232010000800011>

26. Malta, D. C., et al. (2010). Vivência de violência entre escolares brasileiros: resultados da Pesquisa Nacional de Saúde do Escolar (PeNSE). *Ciência & Saúde Coletiva*, 15(2), 3053-3063. <https://doi.org/10.1590/S1413-81232010000800010>
27. Malta, D. C., Machado, I. E., Porto, D. L., Silva, M. M. A., Freitas, P. C., & Costa, A. W. N. (2014). Consumo de álcool entre adolescentes brasileiros segundo a Pesquisa Nacional de Saúde Escolar (PeNSE 2012). *Revista Brasileira de Epidemiologia*, 17(1), 203-214. <https://doi.org/10.1590/1809-4503201400050016>
28. Malta, D. C., Porto, D. L., Melo, F. C. M., Monteiro, R. A., Sardinha, L. M. V., & Lessa, B. H. (2011). Família e proteção ao uso de tabaco, álcool e drogas em adolescentes, Pesquisa Nacional de Saúde dos Escolares. *Revista Brasileira de Epidemiologia*, 14, 166-177. <https://doi.org/10.1590/S1415-790X2011000500017>
29. Malta, D. C., Prado, R. R., Dias, A. J. R., Mello, F. C. M., Silva, M. A. I., Costa, M. R., et al. (2014). Bullying e fatores associados em adolescentes brasileiros: análise da Pesquisa Nacional de Saúde do Escolar (PeNSE 2012). *Revista Brasileira de Epidemiologia*, 17, 131-145. <https://doi.org/10.1590/1809-4503201400050011>
30. Marcolino, E. C., et al. (2018). Bullying: prevalência e fatores associados à vitimização e à agressão no cotidiano escolar. *Texto & Contexto Enfermagem*, 27(1), 1-10. <https://doi.org/10.1590/0104-07072018005500016>
31. Matos, M. G. D., & Carvalhosa, S. F. (2001). A saúde dos adolescentes: ambiente escolar e bem-estar. *Psicologia, Saúde & Doenças*, 2(2), 43-53.
32. Matos, M. G. de, & Gonçalves, S. M. P. (2009). Bullying nas escolas: comportamentos e percepções. *Psicologia, Saúde & Doenças*, 10(1), 3-15.
33. Matos, M. G. D., et al. (2001). A saúde dos adolescentes: ambiente escolar e bem-estar. *Psicologia, Saúde & Doenças*, 2, 43-53.
34. Mattos, R. (2012). *Sobrevivendo ao estigma da gordura*. São Paulo: Vetor.
35. Mello, F. C. M., Malta, D. C., Prado, R. R., Farias, M. S., da Silva Alencastro, L. C., & Silva, M. A. I. (2016). Bullying and associated factors in adolescents in the Southeast region according to the National School-based Health Survey. *Revista Brasileira de Epidemiologia*, 19(4), 866-877. <https://doi.org/10.1590/1980-5497201600040015>
36. Mello, F. C. M., et al. (2017). A prática de bullying entre escolares brasileiros e fatores associados, Pesquisa Nacional de Saúde do Escolar 2015. *Ciência & Saúde Coletiva*, 22, 2939-2948. <https://doi.org/10.1590/1413-81232017229.12762017>
37. Moraes, B. C., & Hutz, C. S. (2012). Bullying: prevalência, implicações e diferenças entre os gêneros. *Psicologia Escolar e Educacional*, 16(1). <https://doi.org/10.1590/S1413-85572012000100004>

38. Nygren, K., Bergström, E., Janlert, U., & Nygren, L. (2014). Adolescent self-reported health in relation to school factors: a multilevel analysis. *The Journal of School Nursing*, 30(2), 114-122. <https://doi.org/10.1177/10559840513489709>
39. Obrdalj, E. C., Sesar, K., Santic, Z., Klaric, M., Sesar, I., & Rumboldt, M. (2013). Trauma symptoms in pupils involved in school bullying: A cross-sectional study conducted in Mostar, Bosnia and Herzegovina. *Collegium Antropologicum*, 37(1), 11-16.
40. Oliveira, M. M., Campos, M. O., Andreazzi, M. A. R., & Malta, D. C. (2017). Características da Pesquisa Nacional de Saúde do Escolar - PeNSE. *Epidemiologia e Serviços de Saúde*, 26, 605-616. <https://dx.doi.org/10.5123/s1679-49742017000300017>
41. Oliveira, W. A., et al. (2015). Interfaces entre família e bullying escolar: uma revisão sistemática. *Psico-USF*, 20(1), 121-132. <https://doi.org/10.1590/1413-82712015200111>
42. Oliveira, W. A., Silva, J. L., Alves, Q. R., Iossi, S. M. A. (2016). Experiences and perceptions of discrimination related to bullying among Brazilian students. *Maltrattamento e Abuso All'infanzia*, 18(1), 29-57. <https://doi.org/10.3280/mal2016-001003>
43. Oliveira, W. A., Iossi Silva, M. A., da Silva, J. L., Malta de Mello, F. C., Ruscitto do Prado, R., & Carvalho Malta, D. (2016). Associações entre a prática de bullying e variáveis individuais e de contexto na perspectiva dos agressores. *Jornal de Pediatria*, 92(1). <https://doi.org/10.1016/j.jped.2015.04.003>
44. Oliveira-Menegotto, L. M., Pasini, A. I., & Levandowski, G. (2013). O bullying escolar no Brasil: uma revisão de artigos científicos. *Revista Psicologia: Teoria e Prática*, 15(2), 203-215.
45. Ortega, M. V., Martínez Lozano, J. J., & Zafra Tristancho, S. L. (2016). Factores asociados al bullying en instituciones de educación superior. *Revista Criminalidad*, 58(2), 197-208. <https://doi.org/10.47741/17943108.118>
46. Paula, C. S., et al. (2008). Mental health and violence among sixth grade students from a city in the state of São Paulo. *Revista de Saúde Pública*, 42(3), 524-528. <https://doi.org/10.1590/S0034-89102008005000027>
47. Rech, R. R., et al. (2013). Prevalence and characteristics of victims and perpetrators of bullying. *Jornal de Pediatria (Versão em Português)*, 89(2), 164-170. <https://doi.org/10.1016/j.jpedp.2012.09.004>
48. Restum, A. E. M., & Fontes, T. M. P. (2012). Bioética e aspectos epidemiológicos de vítimas de violência sexual em hospital-maternidade. *Revista Bioética*, 20(2), 280-287. <https://www.redalyc.org/articulo.oa?id=361533259010>
49. Ribeiro, J. L. P. (2005). Introdução à psicologia da saúde. Porto Alegre: Quarteto Editora.

50. Rocha, M. O., do Amaral Costa, C. L. N., & Neto, I. F. P. (2013). Bullying e o papel da sociedade. *Caderno de Graduação - Ciências Humanas e Sociais - UNIT*, 1(2), 191-199.
51. Sampaio, J. M. C., Oliveira, W. A., Silva, J. L., Medeiros, M., & Silva, M. A. I. (2015). Prevalência de bullying e emoções de estudantes envolvidos. *Texto & Contexto Enfermagem*, 24(2), 344-352. <https://dx.doi.org/10.1590/0104-07072015003430013>
52. Santana, C., & Costa, B. L. D. (2016). Opressão nas escolas: o bullying entre estudantes do ensino básico. *Cadernos de Pesquisa*, 46(161), 638-663. <https://doi.org/10.1590/198053143888>
53. Scutti, C. S., et al. (2014). O enfrentamento do adolescente obeso: a insatisfação com a imagem corporal e o bullying. *Revista da Faculdade de Ciências Médicas de Sorocaba*, 16(3), 130-133.
54. Seals, D., & Young, J. (2003). Bullying and victimization: prevalence and relationship to gender, grade level, ethnicity, self-esteem, and depression. *Adolescence*, 38(152), 735.
55. Silva, J. L., de Mello, M., Carvalho, F., Abadio de Oliveira, W., Ruscitto do Prado, R., Iossi Silva, M. A., et al. (2018). Vitimização por bullying em estudantes brasileiros: resultados da Pesquisa Nacional de Saúde do Escolar (PeNSE). *Texto & Contexto Enfermagem*, 27(3). <https://doi.org/10.1590/0104-07072018000310017>
56. Smith, P. K. (2002). Intimidação por colegas e maneiras de evitá-la. In *Violência nas escolas e políticas públicas* (pp. 187-205).
57. Sprinthall, N. A., & Collins, W. A. (1999). *Psicologia do adolescente: uma abordagem desenvolvimentista*. São Paulo: EPU.
58. Stata Corporation. (2014). *Stata/IC 13.1 for Windows*. College Station, TX: Author.
59. Wendt, G. W. M., & Lisboa, C. S. D. (2013). Agressão entre pares no espaço virtual: definições, impactos e desafios do cyberbullying. *Psicologia Clínica*, 25(1), 73-87. <https://doi.org/10.1590/S0103-56652013000100005>
60. Youngblade, L. M., Theokas, C., Schulenberg, J., Curry, L., Huang, I.-C., & Novak, M. (2007). Risk and promotive factors in families, schools, and communities: A contextual model of positive youth development in adolescence. *Pediatrics*, 119(Supl. 1), S47-S53. <https://doi.org/10.1542/peds.2006-2089H>
61. Zaine, I., dos Reis, M. de J. D., & da Costa Padovani, R. (2010). Comportamentos de bullying e conflito com a lei. *Estudos de Psicologia*, 27(3), 375-382. <https://doi.org/10.1590/S0103-166X2010000300009>
62. Zequinão, M. A., et al. (2016). Bullying escolar: um fenômeno multifacetado. *Educação e Pesquisa*, 42(1), 181-198. <https://doi.org/10.1590/S1517-9702201603138354>