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BULLYING VICTIMIZATION AMONG BRAZILIAN STUDENTS: RESULTS OF THE NATIONAL SURVEY OF SCHOOL HEALTH (PENSE)

Jorge Luiz da Silva¹, Flávia Carvalho Malta de Mello², Wanderlei Abadio de Oliveira³, Rogério Ruscitto do Prado⁴, Marta Angélica Iossi Silva⁵, Deborah Carvalho Malta⁶

¹ Ph.D. in Public Health Nursing. Professor, Graduate Program in Health Promotion at the *Universidade de Franca*. Franca, São Paulo, Brazil. E-mail: jorge.silva@unifran.edu.br

² Ph.D. in Public Health Nursing. *Escola de Enfermagem de Ribeirão Preto (EERP)*, *Universidade de São Paulo (USP)*. Ribeirão Preto, São Paulo, Brazil. E-mail: fcmalta@usp.br

³ Ph.D. in Public Health Nursing. Professor *Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, USP*. Ribeirão Preto, São Paulo, Brazil. E-mail: wanderleio@usp.br

⁴ Ph.D. in Preventive Medicine. Professor *Faculdade de Medicina USP*. São Paulo, Brazil. E-mail: ruscittousp@yahoo.com.br

⁵ Ph.D. in Public Health Nursing. Professor *EERP-USP*. Ribeirão Preto, São Paulo, Brazil. E-mail: maiossi@eerp.usp.br

⁶ Ph.D. in Collective Health. Professor *Escola de Enfermagem, Universidade Federal de Minas Gerais*. Belo Horizonte, Minas Gerais, Brazil. E-mail: dcmalta@uol.com.br

ABSTRACT

Objective: to identify bullying victimization among Brazilian students and analyze its association with individual and contextual variables.

Method: cross-sectional, population-based study with data collected by the National Survey of School Health. A total of 109,104 9th grade students from public and private schools participated. Data were collected using a self-report questionnaire. We tested a model of association between bullying and sociodemographic variables (age, self-reported race, and mothers' education), mental health (loneliness, insomnia, and lack of friends), family context (being spanked at home), school absenteeism (missing classes), and risk behavior (drug experimentation). Univariate and multivariate analyses were conducted.

Results: the prevalence of victimization was 7.2%. Boys and girls aged 14 and 15 years old less frequently experienced bullying, while girls younger than 13 years old more frequently experienced bullying (OR: 1.48, CI95%: 1.02-2.15). Indigenous boys (OR: 1.37, CI95%: 1.15-1.65), Afro-descendant girls (OR: 1.24, CI95%: 1.09-1.40) Asian-descendant girls (OR: 1.43, CI95%: 1.21-1.70) were more frequently victims. Loneliness, lack of friends, insomnia, missing classes, domestic violence, and low level of mother's education were associated with victimization among both boys and girls while drug use was associated only with girls (OR: 1.19, CI95%: 1.03-1.37).

Conclusion: the results indicate that bullying victimization interferes in the education and health of students. These findings can support interventions intended to facilitate coping and promote health in schools.

DESCRIPTORS: Bullying. Violence. Family relations. School health. Risk-Taking.

VITIMIZAÇÃO POR BULLYING EM ESTUDANTES BRASILEIROS: RESULTADOS DA PESQUISA NACIONAL DE SAÚDE DO ESCOLAR (PENSE)

RESUMO

Objetivo: identificar a prevalência de vitimização por *bullying* em estudantes brasileiros e analisar sua associação com variáveis individuais e de contexto.

Método: estudo transversal, de base populacional, com dados provenientes da Pesquisa Nacional de Saúde do Escolar. Participaram 109.104 estudantes do 9º ano do Ensino Fundamental de escolas públicas e privadas. A coleta de dados ocorreu por meio de um questionário autoaplicável. Foi testado o modelo de associação entre o *bullying* e variáveis sociodemográficas (idade, raça/cor da pele autodeclarada e escolaridade da mãe), de saúde mental (sentimento de solidão, insônia e falta de amigos), de contexto familiar (apanhar em casa), absentismo escolar (falta às aulas) e comportamento de risco para a saúde (experimentação de drogas). Foram realizadas análises uni e multivariadas.

Resultados: a prevalência de vitimização foi de 7,2%. Os meninos e as meninas de 14 e 15 anos sofreram menos *bullying*, e as meninas menores de 13 anos sofreram mais (OR: 1,48, IC95%: 1,02-2,15). Foram mais vítimas meninos indígenas (OR: 1,37, IC95%: 1,15-1,65), meninas pretas (OR: 1,24, IC95%: 1,09-1,40) e meninas amarelas (OR: 1,43, IC95%: 1,21-1,70). Sentir-se solitário, não ter amigos, ter insônia, faltar às aulas, sofrer violência física na família e possuir mãe com baixa escolaridade foram variáveis associadas à vitimização para meninos e meninas e usar drogas, somente para as meninas (OR: 1,19, IC95%: 1,03-1,37).

Conclusão: os resultados indicam que a vitimização por *bullying* interfere na escolaridade e na saúde dos estudantes. Dados que podem subsidiar iniciativas de enfrentamento do *bullying* e de promoção de saúde nas escolas.

DESCRIPTORES: Bullying. Violência. Relações familiares. Saúde escolar. Assunção de riscos.

VICTIMIZACIÓN POR *BULLYING* EN ESTUDIANTES BRASILEÑOS: RESULTADOS DE LA INVESTIGACIÓN NACIONAL DE LA SALUD DEL ESCOLAR (PENSE)

RESUMEN

Objetivo: identificar la prevalencia de victimización por *bullying* en los estudiantes brasileños y analizar su asociación con variables individuales y de contexto.

Método: estudio transversal de base poblacional y con datos provenientes de la investigación Nacional de la Salud del Escolar. Participaron 109.104 estudiantes del 9º año de la Enseñanza Primaria de escuelas públicas y privadas. La obtención de datos se realizó por medio de un cuestionario autoaplicable. Se verificó el modelo de asociación entre el *bullying* y las variables sociodemográficas (edad, raza/color de la piel autodeclarada y escolaridad de la madre); la salud mental (sentimiento de soledad, insomnio y falta de amigos); el contexto familiar (malos tratos en casa), absentismo escolar (faltar a las clases) y el comportamiento de riesgo para la salud (uso de drogas). Se realizaron análisis univariados y multivariados.

Resultados: la prevalencia de la victimización fue del 7,2%. Los niños y las niñas de 14 y 15 años sufrieron menos *bullying*, y las niñas menores de 13 años sufrieron más *bullying* (OR: 1,48, IC95%: 1,02-2,15). Las mayores víctimas fueron los niños indígenas (OR: 1,37, IC95%: 1,15-1,65), las niñas negras (OR: 1,24, IC95%: 1,09-1,40) y las niñas asiáticas (OR: 1,43, IC95%: 1,21-1,70). Sentirse solitario, no tener amigos, sufrir de insomnio, faltar a las clases, sufrir violencia física en la familia y tener una madre con baja escolaridad fueron las variables asociadas con la victimización para niños y niñas; y el uso de drogas se relacionó solamente con las niñas (OR: 1,19, IC95%: 1,03-1,37).

Conclusión: los resultados indican que la victimización por *bullying* interfiere en la escolaridad y en la salud de los estudiantes. Tales datos pueden subsidiar las iniciativas para enfrentar el *bullying* y promocionar la salud en las escuelas.

DESCRIPTORES: *Bullying*. Violencia. Relaciones familiares. Salud escolar. Asunción de riesgos.

INTRODUCTION

Bullying is intentional, repetitive violence that occurs among peers and implies a power imbalance between victims and bullies.¹ Occurrence rates among countries range from 7% to 43% for victims and from 5% to 44% for bullies.² In Brazil, victimization ranges from 5.4%³ to 67.5%⁴ and bullying from 10.2%⁵ to 54.7%.⁴ Studies indicate that bullying negatively affects the health, quality of life, and psychosocial development and education of children and adolescents worldwide.⁶⁻⁷ Among those involved with bullying, victims are the most vulnerable because they are the direct and indirect targets of bullying. In general, the negative consequences for the victims include a sense of insecurity, loneliness, decreased self-esteem, insomnia, depression, school absenteeism, low academic performance, and suicidal ideation, among other consequences.⁸⁻¹⁰

Victims are generally described as being socially isolated, which restricts the amount of support and help they receive from peers, while at the same time, they do not have the social skills necessary to ask for help from their peers or adults.¹¹⁻¹² Hence, victimization may occur for long periods without being noticed and more severely impact the education and health of students in the medium or long terms.¹³ For this reason, it is essential to acquire a better understanding of how bullying affects victims and how it is associated with individual characteristics, as well as the characteristics of the

context of students. Such an understanding can support interventions intended to reduce vulnerability to victimization, especially considering that, in Brazil, bullying is seldom investigated and few interventions are implemented and scientifically disseminated.¹⁴

Additionally, another important aspect in the dynamics of bullying is that violence and responses to it are modulated by issues related to the sex of those involved,¹¹ which leads to the need to develop an approach that captures the different nuances of how victimization affects boys and girls. Even though existing studies addressing differences between the sexes of victims report mixed results, there are indications that boys are more frequently victims than girls⁵ and girls are more frequently rejected by peers in comparison to boys.¹⁵ These results reinforce the importance of considering differences between the sexes of victims.

Given the previous discussion, this study's objective was to identify the prevalence of victimization among Brazilian students and analyze its association with individual and contextual variables.

METHOD

This study presents the results of the second issue of the epidemiological inquiry, National Survey of School Health (PeNSE), conducted by the Ministry of Health and the Brazilian Institute of Geography and Statistics (IBGE). The second issue

of PeNSE was conducted in 2012 and the goal was to map behaviors related to the health of Brazilian students. The probabilistic sample was calculated using data from the 2010 School Census to obtain national representativeness. A total of 109,104 9th grade students from both public and private students located in urban and rural areas in the entire Brazilian territory participated. Students attending the 9th grade were chosen because a minimum level of education was necessary to answer the questionnaire used to collect data.³

All students present at the day of data collection, who voluntarily consented to participate in the study were included, totaling 83% of the total number of students enrolled in the period. Most participants were girls (52.2%); 86% were aged between 13 and 15 years old;¹⁶ 82.8% attended public schools and 17.2% attended private schools located in the urban or rural areas of a set of cities from the entire national territory (all capitals, the Federal District, and interiors of the states).¹⁶

Data were collected between April and September 2012 by previously trained agents from the Brazilian Institute of Geography and Statistics (IBGE). The IBGE agents visited schools during class hours and explained to the students the study's objectives and procedures. Each student received a smartphone that contained free and informed consent forms and the questionnaires with thematic modules with variable numbers of questions. The agents instructed the students collectively regarding the voluntary nature of their participation in the PeNSE survey, how to answer the questionnaires via smartphone, and remained available to clarify individual doubts. Data from the students who did not provide their consent were not included in the study. Data collection took 50 minutes, on average (duration of one class time).

Information concerning victimization was collected through the question: "IN THE LAST 30 DAYS, how often has one or more of your schoolmates mistreated, duped, teased, intimidated, or mocked you so much that you felt hurt, harassed, annoyed, offended or humiliated?". The answers were organized on a five-point Likert scale: 1) Not once in the last 30 days; 2) Rarely in the last 30

days; 3) A few times in the last 30 days; 4) Most of the time in the last 30 days; 5) Always in the last 30 days. Students who checked options 4 or 5 were considered victims.

Mental health variables (loneliness, insomnia and lack of friends), variables concerning the family context (being spanked at home), absenteeism (missing classes), and health risk behavior (drug experimentation) were measured with agreement scales, which varied according to frequency (in the last seven days, number of days or none, for instance) and by yes and no categories. Sociodemographic characteristics were: age, sex, self-reported race, and mother's education.

In regard to data analysis, the prevalence of variables was calculated considering a confidence interval of 95% (CI95%). Logistic regression was used to analyze factors associated with bullying victimization with Odds Ratio and a respective CI of 95%. Statistically significant variables ($p < 0.05$) remained in the final adjusted multivariate model. The analysis was conducted using SPSS, version 20 and the Complex Samples Module was used, considering the survey's complex sampling.

The project to which this study is linked was submitted to and approved by the Institutional Review Board at the Ministry of Health (CONEP/MS No. 16,805 and opinion report No. 192/2012). Participation was voluntary and the adolescents provided their consent by completing the free and informed consent form provided in the first page of questionnaire applied using a smartphone. Note that the Statute of the Child and Adolescent (ECA) provides for the autonomy of adolescents to take initiative, such as responding to a questionnaire that does not impose a risk to their health or instruments that can support policies and actions directed to this population.

RESULTS

The results show that 7.2% ($n=7,856$) of the students in the total sample ($n=109,104$) were involved in bullying situations as victims; boys were significantly more frequently involved with bullying than girls. Table 1 presents the results for both sexes in terms of sociodemographic variables.

Table 1 - Sociodemographic characteristics of students, victims of bullying. National Survey of School Health (PeNSE), Brazil, 2012. (n=109,104)

	Male		P	Female		P
	% (CI95%)	OR (CI95%)		% (CI95%)	OR (CI95%)	
Total	7.9 (7.6-8.3)	1.25 (1.19-1.31)		6.5 (6.3-6.7)	1.00	<0.001
Age						
< 13 years old	11.2 (8.2-15.1)	1.18 (0.83-1.67)	0.347	7.3 (5.3-10.0)	1.08 (0.77-1.53)	0.651
13 years old	9.6 (9.1-10.2)	1.00		6.8 (6.4-7.2)	1.00	
14 years old	8.2 (7.6-8.8)	0.84 (0.77-0.91)	<0.001	6.3 (5.8-6.8)	0.92 (0.85-1.00)	0.042
15 years old	7.0 (6.3-7.6)	0.70 (0.64-0.78)	<0.001	6.4 (5.8-7.1)	0.94 (0.85-1.05)	0.274
16 years old or older	6.3 (5.7-7.0)	0.64 (0.57-0.71)	<0.001	6.7 (6.0-7.5)	0.99 (0.88-1.12)	0.853
Race						
Caucasian	8.1 (7.7-8.4)	1.00		6.5 (6.2-6.9)	1.00	
Afro-descendant	8.4 (7.7-9.1)	1.04 (0.95-1.14)	0.394	7.7 (7.0-8.6)	1.21 (1.09-1.35)	0.001
Asian-descendant	7.6 (6.5-9.0)	0.94 (0.79-1.12)	0.505	8.8 (7.7-10.1)	1.39 (1.20-1.62)	<0.001
Mixed race	7.5 (7.0-8.0)	0.93 (0.86-1.00)	0.037	5.9 (5.5-6.4)	0.91(0.84-0.98)	0.01
Indigenous	9.9 (8.5-11.4)	1.25 (1.06-1.47)	0.007	6.0 (5.0-7.2)	0.92 (0.76-1.12)	0.388
Mother's education						
No education	8.7 (7.9-9.7)	1.00		7.9 (7.2-8.7)	1.00	
Primary/Middle School	7.5 (6.7-8.5)	0.85 (0.75-0.96)	0.011	5.8 (5.2-6.5)	0.72 (0.64-0.82)	<0.001
High school	7.8 (7.0-8.8)	0.89 (0.79-1.01)	0.06	6.7 (6.0-7.5)	0.84 (0.74-0.94)	0.004
Higher education	8.1 (7.1-9.3)	0.92 (0.80-1.07)	0.288	5.9 (5.1-6.9)	0.74 (0.63-0.87)	<0.001

Boys aged 14, 15 and 16 years old and 14-year old girls less frequently experienced bullying. In terms of race, male students who self-reported being indigenous were those who more frequently experienced bullying. A higher prevalence of bullying among female students took place among those who reported being Asian or Afro-descendant. Mother's education was negatively associated with victimiza-

tion, indicating that when mothers have some level of education, children of both sexes are less likely to become victims of bullying. Table 2 shows the distribution of victims according to sex in regard to the variables: mental health (loneliness, insomnia and friendship), domestic violence (being spanked), school absenteeism, and health risk behavior (drug experimentation).

Table 2 - Variables concerning mental health, family context and health risk behavior of students, victims of bullying. National Survey of School Health (PeNSE), Brazil, 2012. (n=109,104)

	Male		P	Female		P
	% (CI95%)	OR (CI95%)		% (CI95%)	OR (CI95%)	
Loneliness						
No	6.3 (6.1-6.5)	1.00		4.6 (4.4-4.8)	1.00	
Yes	21.6 (20.3-22.8)	4.08 (3.79-4.40)	<0.001	13.1 (12.3-13.9)	3.09 (2.89-3.31)	<0.001
Insomnia						
No	7.1 (6.9-7.4)	1.00		5.3 (5.1-5.5)	1.00	
Yes	19.1 (17.7-20.6)	3.08 (2.80-3.38)	<0.001	14.6 (13.6-15.5)	3.06 (2.84-3.31)	<0.001
Friends						
I do not have	12.3 (11.0-13.8)	1.68 (1.48-1.91)	<0.001	16.6 (14.7-18.7)	3.02 (2.61-3.49)	<0.001
1 or more	7.7 (7.5-8.0)	1.00		6.2 (6.0-6.4)	1.00	

	Male		P	Female		P
	% (CI95%)	OR (CI95%)		% (CI95%)	OR (CI95%)	
Domestic violence/Being spanked						
No	6.9 (6.7-7.1)	1.00		5.7 (5.5-5.9)	1.00	
Yes	17.5 (16.4-18.7)	2.86 (2.64-3.11)	<0.001	12.6 (11.8-13.6)	2.41 (2.22-2.62)	<0.001
Misses classes						
No	7.5 (7.2-7.8)	1.00		6.0 (5.8-6.2)	1.00	
Yes	9.1 (8.5-9.7)	1.24 (1.15-1.32)	<0.001	8.0 (7.4-8.5)	1.36 (1.26-1.46)	<0.001
Drugs						
No	7.9 (7.6-8.1)	1.00		6.2 (6.0-6.4)	1.00	
Yes	8.9 (8.0-9.9)	1.15 (1.03-1.29)	0.016	10.4 (9.4-11.5)	1.76 (1.57-1.97)	<0.001

Most victims, both girls and boys, reported loneliness. Victims of both sexes reported a lack of friends. The Odds Ratio of victims who experience insomnia was three times greater for boys and twice as great for girls. Victims of both sexes also reported missing classes, while drug experimentation was almost two times greater among female victims.

Most victims, boys and girls, reported loneliness. Victims of both sexes also reported lack of friends. The Odds Ratio of victims, both sexes, is three times greater for insomnia. Domestic violence was almost three times greater for boys and twice as great for girls. Victims of both sexes also more frequently missed classes. Drug experimentation was more frequent among female victims, at almost

twice the rate of non-victims.

Table 3 presents the results obtained after adjusting for all the model variables. Boys and girls aged 14 and 15 years old less frequently experienced bullying, while girls younger than 13 years old more frequently experienced bullying. Victims more frequently were indigenous boys and Afro- and Asian-descendant girls. Higher level of maternal education protected against victimization in both sexes. Feeling lonely, not having friends, having insomnia, missing classes, being spanked by family members, and having a mother with a low educational level were variables associated with victimization for boys and girls, while the use of drugs was associated with victimization only among girls.

Table 3 - Final model adjusted for all the sociodemographic variables and variables concerning mental health, and those from the family and school contexts of bullying victims. National Survey of School Health (PeNSE), Brazil, 2012. (n=109,104)

	Male				P	Female			
	OR	CI (95%)		P		OR	CI (95%)		P
		Lower	Upper				Lower	Upper	
Age									
< 13 years old	1.32	0.89	1.97	0.166	1.48	1.02	2.15	0.041	
13 years old	1.00				1.00				
14 years old	0.83	0.75	0.91	<0.001	0.88	0.80	0.96	0.006	
15 years old	0.61	0.54	0.68	<0.001	0.80	0.70	0.90	<0.001	
16 years old or older	0.50	0.44	0.57	<0.001	0.82	0.71	0.95	0.008	
Race									
Caucasian	1.00				1.00				
Afro-descendant	1.08	0.96	1.20	0.202	1.24	1.09	1.40	0.001	
Asian-descendant	0.95	0.78	1.16	0.603	1.43	1.21	1.70	<0.001	
Mixed race	0.94	0.86	1.02	0.122	0.94	0.86	1.03	0.192	
Indigenous	1.37	1.15	1.65	0.001	0.83	0.66	1.04	0.11	
Mother's education									
No education	1.00				1.00				
Primary/middle school	0.86	0.76	0.98	0.026	0.73	0.64	0.82	<0.001	

High school	0.87	0.77	1.00	0.043	0.80	0.70	0.91	0.001
Higher education	0.85	0.72	0.99	0.041	0.66	0.55	0.79	<0.001
Loneliness								
No	1.00				1.00			
Yes	3.23	2.95	3.53	<0.001	2.26	2.07	2.45	<0.001
Insomnia								
No	1.00				1.00			
Yes	1.87	1.67	2.10	<0.001	2.05	1.87	2.25	<0.001
Friends								
I do not have friends	1.37	1.18	1.60	<0.001	2.31	1.95	2.73	<0.001
Have 1 or more	1.00				1.00			
Domestic violence/being spanked								
No	1.00				1.00			
Yes	2.25	2.04	2.48	<0.001	1.76	1.59	1.94	<0.001
Miss classes								
No	1.00				1.00			
Yes	1.19	1.10	1.30	<0.001	1.17	1.07	1.28	0.001
Drugs								
No	1.00				1.00			
Yes	0.87	0.76	1.00	0.047	1.19	1.03	1.37	0.017

DISCUSSION

Boys are more frequently victims, especially indigenous individuals. Afro-descendant and Asian-descendant girls are also more frequently victimized. A higher level of maternal education was negatively associated with victimization, while domestic violence (being spanked) was associated with being a victim, both among boys and girls. Victims of both sexes more frequently reported loneliness, having fewer friends, having insomnia, missing classes, and experimenting with drugs.

This study identified 7.2% of the students as victims of bullying; a rate greater than the 5.4% identified in the previous survey, conducted in 2009.³ This increase may be explained by the fact that students are increasingly aware of this phenomenon, due to an emphasis in the media in recent years, and for this reason, it is recognized more easily. Other studies support the result that boys more frequently experience bullying,^{5,17-18} which may be explained by demands of a cultural nature with which boys have to cope, such as a need to portray an image of masculinity, domination and power, which encourages boys to be perpetrators and, consequently, more frequently suffer bullying.⁶

In regard to the age of the victims, note that all were attending the same school grade and victimization was less frequent among older students. This result is in agreement with the literature, which indicates that victimization decreases with age.¹ One potential explanation is that older students are bet-

ter able to defend themselves due greater physical, cognitive and social development.¹² In addition to increased physical strength and cognitive development, improved social skills facilitate socialization with peers and the ability to devise more appropriate coping strategies to deal with bullying. Younger students still lack these characteristics and may be more vulnerable to bullying.

Most students experiencing bullying from both sexes belonged to ethnic minorities, which is in agreement with the literature. A smaller number of students from a given ethnicity/race leads to an imbalance of power and individuals become potential victims of students who are represented in greater numbers.¹⁹ Note that issues related to social dynamics, such as intolerance and prejudice, are also predictors of bullying;²⁰ however, the relationship between victimization and race is complex and may be biased in various studies due to the composition of the relevant samples. Balance or imbalance in the proportion of students in each ethnic group restricts the generalization of results.¹⁹ For instance, the larger number of students who self-reported being Asian-descendants, three times greater than the number identified in the Census 2010, may have influenced the results presented by the girls, and therefore, should be considered with caution.

Data concerning the mothers' education levels indicate that the higher the educational level of mothers, the lower is the likelihood of individuals experiencing school bullying, among both girls and boys. One longitudinal study conducted in the Unit-

ed States with a representative sample identified an association between the low educational level of mothers and being a victim of bullying involving some type of weapon.²¹ A potential explanation is that mothers' education influences family dynamics and parental practices, as well as being related to the students' socioeconomic status, in addition to their social and cultural experiences.²²⁻²³ Thus, we assume that mothers with higher levels of education have more knowledge on how to raise children, how to impose appropriate limits, and how to supervise and help their children to deal with their needs or difficulties in interacting with schoolmates.

Feeling lonely was associated with bullying in both sexes. Other studies indicate loneliness may lead to mental health problems such as anxiety, depression, or low self-esteem.²⁴⁻²⁵ Lonely people have negative perceptions of others and tend to interpret their social contexts as threatening. Such perceptions may lead to social isolation, a characteristic identified as a predictor of bullying victimization.^{13,26} This is a situation that affected the victims in this study, who more frequently reported not having friends than did their non-victims counterparts. Friends provide social and emotional support, the development of social skills, support one's self-esteem and protect against victimization.¹³ Therefore, not having friends is a concern because friendship is an aspect that promotes one's self-esteem, self-conception and quality of life.⁶

Even though girls more frequently reported not having friends, boys, despite having more friends, more frequently reported feeling lonely. We assume that their friendships were not very close or their friends were victims, as well, thus they were not able to defend each other. The literature shows that the most important aspect in relation to bullying is not one's quantity of friends or the presence of friends, but the quality of friendships in terms of closeness and affective conditions to provide support and protection.¹³ This is important information that legitimates the need to expand the social networks of victims, especially making friends with those who can help them overcome their vulnerability.

The results showing that victimization is associated with insomnia are also reported by other studies. One longitudinal study²⁷ identified a relationship between being a victim of bullying and presenting sleep disorders. No distinction was found between sexes in regard to this variable, so that both boys and girls may present sleeping problems, related to some degree to bullying experienced

at school. A potential explanation is that quality of sleep, especially during adolescence, is related to a perception of safety. The perception of threats increases excitement and makes it more difficult to fall asleep, while stress accruing from the prospect of being assaulted again or that such a condition may last, generates distress.²⁸ These results, together with those concerning loneliness, indicate psychological distress that affects the quality of life and the psychosocial development of victims. School absenteeism, similar to sleeping problems, was equally reported by both sexes and was already expected because it is a strategy victims adopt to avoid aggression.²⁹

Facing physical violence at home (being spanked) was associated with victimization in both sexes. Boys, however, more frequently experience domestic violence. Other studies also report this relationship,³⁰⁻³¹ highlighting that, not only does personally experiencing physical violence increase the likelihood of becoming a victim of bullying, but witnessing domestic violence has a similar effect, as well. Punitive disciplinary methods may lead to anxiety, social restraint and submission, characteristics that predispose students to become targets of bullying at school. The literature shows that there is also a relationship between domestic violence and the consumption of alcohol and drugs during adolescence. A cross-sectional study conducted in the United States identified a greater likelihood of alcohol consumption among students involved with bullying.³²

The results concerning drug experimentation differ between boys and girls in this study; only female victims of bullying experimented with drugs in a greater proportion compared to their non-victim counterparts. Male victims of bullying less frequently experiment with drugs compared to their non-victim counterparts. This is an important result that signals that girls probably face more difficulties in dealing with bullying at school and drugs may be a mechanism of escape. This relationship, however, needs to be better investigated.

The strengths of this study include the fact that a national and representative sample was used together with an exploratory design, which enabled discussing the variables related to the phenomenon from a contextual perspective. The results, however, should be interpreted considering some limitations. First, self-report questionnaires may lead to bias of memory and interpretation on the part of respondents. Another limitation involves the model of epidemiological inquiry used in the National Survey of

School Health (PeNSE). The large range of variables addressed in the survey impeded better exploration of some important aspects related to bullying and victimization, such as: type of bullying; places at school where bullying more frequently occurs; and the age and sex of bullies, among others things. Future surveys conducted by PeNSE should include questions related to bullying in order to acquire a deeper understanding of its occurrence in Brazilian schools and its main characteristics.

Additionally, the study's cross-sectional design does not allow causal relationships to be established between bullying and the other variables. Future studies with a longitudinal design may indicate how victimization is associated with individual variables and the family context over time, in order to identify whether victimization is a cause or consequence. Finally, further research is necessary, especially in the field of health, because bullying negatively affects the health development of school-aged children and adolescents.

CONCLUSIONS

This study's results present an overview of bullying victimization in the Brazilian territory. The identification of sociodemographic variables, mental health, family context, school absenteeism, and risk behavior associated with school bullying is essential to acquiring a greater understanding of the phenomenon at a national level, considering the representative sample used in this survey. These data can support discussions and the development of proposals intended to prevent and cope with bullying, such as health promotion initiatives in Brazilian schools that are in agreement with the principles of the *Programa Saúde na Escola* [School Health Program] or initiatives intended to implement a culture of peace in the school environment.

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Correspondence: Jorge Luiz da Silva
Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo
Avenida Bandeirantes, 3900
14049-900 - Monte Alegre, Ribeirão Preto, SP, Brasil
E-mail: jorgelsilva@usp.br

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