

Prevalence and factors associated with violence against high school teachers in Teresina, Piauí, 2016: a cross-sectional study*

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Abstract

Objective: to analyze prevalence of violence against high school teachers and associated factors in Teresina, Piauí, Brazil. **Methods:** this was a cross-sectional study using convenience sampling. Data was collected in 2016 in public and private high schools, using a self-administered questionnaire. Prevalence ratios (PR) using Poisson regression and 95% confidence intervals (95%CI) were calculated. **Results:** 279 teachers participated, of whom 54.8% (95%CI 48.8;60.7) reported having suffered at least one type of violence. Verbal insults were most prevalent (39.4%; 95%CI 33.7;45.4), positively associated with public schools (PR=1.45; 95%CI 1.00;2.11) and with schools in the city's Eastern region (PR=1.85; 95%CI 1.17;2.93) and Southern region (PR=1.59; 95%CI 1.05;2.41). Sexual harassment was associated with males (PR=2.38; 95%CI 2.02;2.71). **Conclusion:** violence against teachers was higher in public schools in poorer outskirts regions and regions with high indicators of urban violence.

Keywords: Violence; School Teachers; Schools; Public Health; Occupational Health; Cross-sectional Studies.

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Introduction

Violence suffered by teachers at school and their working in an unhealthy environment can lead to situations of constant stress and great job dissatisfaction.¹ Teachers who are victims of acts of violence undergo behavior changes as a result of the emotional toll and become unable to teach efficiently. Emotional and psychiatric problems are common among teachers who suffer violence as they constantly feel insecure in the classroom.²

Overcrowded classrooms and teachers being unprepared to work in situations of conflict contribute to their vulnerability.³ Furthermore, violence can be related to the teacher being responsible for assessing students' performance and students being dissatisfied with this process and with the result of their assessment, as well as students having access to firearms or sharp objects.⁴

A systematic review of 24 quantitative Brazilian studies conducted between 2002 and 2013 found that the most reported forms of violence against teachers were verbal insults, sexual harassment and violence involving property.

Some 80% of three thousand teachers interviewed via a national telephone survey in the United States in 2010 reported having suffered some kind of violence, and 44% stated having being victims of physical violence.⁵ In South Korea in 2010, one third of one thousand teachers interviewed had been threatened verbally or suffered aggressiveness or abuse from students in the two preceding years. Victims of violence showed difficulties in personal relationships and in their relationship with students, in addition to low self-esteem and fear.⁶

A systematic review of 24 quantitative Brazilian studies conducted between 2002 and 2013 found that the most reported forms of violence against teachers were verbal insults, sexual harassment and violence involving property.⁷ Physical violence was reported by one in every twelve physical education teachers in the Brazilian state of Paraná in 2013.⁸

Aggression and violations occurring in schools are difficult to monitor epidemiologically, which can be explained by low use of reporting mechanisms by tea-

ching establishments and by such violations not being recognized as violent acts that should be reported.⁹

The majority of studies involving teachers investigate their perception of situations of conflict and violence,^{7,8,10-12} but research into acts of violence suffered by teachers when doing their job is still scarce. More studies are needed about violence in everyday school life and about the diverse forms of violence and diverse actors involved in the process, in order to provide information to support the establishment of strategies for responding to violence at school.

In view of the relevance of the theme for public health and the impact of cases of aggression and crime at school on students and teachers, the object of this study was to analyze prevalence of violence and associated factors against high school teachers in Teresina, Piauí, Brazil.

Methods

Study design

This was a cross-sectional study using data from a school-based survey conducted in the first semester of 2016, in public and private high schools in Teresina, Piauí. The study is part of the project entitled Health at school: situational diagnosis in high school education.¹⁵

Context

Teresina is the capital of Piauí, a state located in Brazil's Northeast region. In 2016 the municipality had a population of 847,430 inhabitants. According to the 2014 School Census, 40,136 students were enrolled at public and private high schools. The Municipal Human Development Index (HDI-M), in relation to *education* was 0.707, and less than 50% of the population aged 18-20 years old had complete high school education. The proportion of literate people aged 10 years old or over was 91.5%. In 2015, the Basic Education Development Index (IDEB) for the final years of state high school education was 3.8, which was below the target of 4.0.¹⁴

During the study period, there were 155 public schools and 163 private schools providing high school education, vocational education and youth and adult education in Teresina. Some of them only provided high school education, while others provided high school and vocational education jointly.¹⁴

Teresina's public schools are grouped geographically into four teaching regions, as specified below.

Center/North: the central and most urban and

commercially developed region of the city,¹⁴ as well as having the city's lowest violent crime rates.¹⁵

South: poorer outskirts region, comprised of many lower class housing estates,¹⁴ with higher rates of violence, mainly in more outlying neighborhoods.¹⁵

East: a geographical area undergoing intense urban and commercial development,¹⁴ in third place among the city's regions characterized by high violent crime death rates.¹⁵

Southeast: a region with many lower class housing estates and intense commercial development.¹⁴ It has one of the city's lowest violent crime rates.¹⁵

For the purposes of the study, private schools were distributed geographically into the same teaching regions as the public schools.

Participants

The study population was comprised of all public and private high school teachers in Teresina who were working at the selected schools during the data collection period.

The schools were selected using stratified probabilistic sampling. One public school and one private school were randomly selected for each school size (small: up to 115 students; medium: 116-215 students; and large: more than 215 students, in accordance with distribution terciles based on the number of enrolled students)¹³ and from each of Teresina's four geographic areas. As such, all schools had the same chance of taking part in the study. Twelve public schools and twelve private schools were selected in this manner, being representative of all high schools in the urban zone of Teresina.

All teachers present at the schools when the researchers visited them were invited to take part in the study. The researchers visited each school in the morning and afternoon and at night from Monday to Friday, with the aim of individually approaching all teachers present. After the initial contact, up to five visits were made to collect the answered questionnaires, as some teachers did not answer the questionnaires during initial contact and opted to hand them over at another time. The researchers' visits were carried out based on the distribution of the teachers' working hours at each school. Convenience sampling was used, comprised of those teachers who agreed to take part in the study and answered the questionnaire.

Variables

The dependent variables related to reported violence were as follows:

- occurrence of violence (a positive answer to at least one type of violence: physical; verbal; sexual harassment; intimidation);
- physical violence (yes; no);
- verbal violence (yes; no);
- sexual harassment (yes; no);
- intimidation (yes; no).

The following independent variables related to socio-demographic and professional aspects were analyzed:

- sex (female, male);
- age group (up to 40 years old; over 40 years old);
- school administration (public; private);
- teaching region (South; Southeast; Center/North; East);
- postgraduate (yes; no);
- time as a teacher (up to 13 years; over 13 years); and
- number of schools taught at (one school; more than one school).

Data source and measurement

A self-administered, semi-structured and coded questionnaire was used, containing questions about sociodemographic and professional aspects and reports of violence. The questions related to violence against teachers were based on a questionnaire administered in a study conducted with teachers in the state of Paraná.⁴ Some of those questions were adapted in accordance with this study's objectives. The answers were dichotomized. Undergraduate and postgraduate students from a public university took part in data collection. A pilot study was conducted, which provided the opportunity to systematically test the questionnaire as well as to train the interviewers on interviewing teachers.

Reports of occurrence of violence were obtained by means of a positive answer by teachers to at least one of the following questions: In the last 12 months, have you experienced an act of violence in the school environment? In the last 12 months, have you received verbal insults from your students in the school environment? In the last 12 months, have you received verbal insults from work colleagues in the school environment? In the last 12 months, have you been a victim of physical violence by students in the school environment? In the last 12 months, have you been a victim of physical violence by work colleagues in the school environment? In the last 12 months, have you been intimidated by a student carrying a firearm or other weapon in the

school environment? In the last 12 months, have you been intimidated by a work colleague carrying a firearm or other weapon in the school environment? In the last 12 months, have you felt pressured to let, against your will, a student pass their grade or to facilitate their school performance? In the last 12 months, have you felt pressured by a work colleague to let, against your will, a student to pass their grade or to facilitate their school performance? In the last 12 months, have you felt sexually harassed by students in the school environment? In the last 12 months, have you felt sexually harassed by work colleagues in the school environment?⁴

During the initial visits at the schools, in the morning, afternoon and at night, from Monday to Friday, teachers were informed as to the methodological and ethical aspects of the study. If they agreed to take part in the study, they received a copy of the questionnaire, which could be answered there and then or returned later to the interviewers during one of the five following visits to the schools. The questionnaire was anonymous so that it was not possible to identify the teachers.

Bias control

In order to avoid information bias, teachers were allowed to take the questionnaire home with them, so as to avoid any embarrassment related to the issue of violence in the workplace. In addition, up to five visits were made to each school with the aim of obtaining the largest possible number of questionnaires answered by teachers.

Study size

All teachers working at the participating schools who were not on leave, on holiday or absent during one of the visits to the schools and who returned the completed questionnaires took part in the study.

Statistical methods

Relative and absolute frequencies were calculated to characterize study participants. The Wald test with a 5% significance level was used to check for association between occurrence of violence and the independent variables. Crude and adjusted prevalence ratios (PR) and their 95% confidence intervals (95%CI), were calculated using a Poisson regression model with robust variance. The analyses were performed with the aid of the Statistical Package for the Social Sciences version 20.

Ethical aspects

The study was approved by the Federal University of Piauí (UFPI) Research Ethics Committee, Opinion No.

1.495.975, on 13/04/2016. Authorization to conduct the study was granted by the Piauí State Education and Culture Department (Seduc/PI) and by the headmasters of the private schools. All participants signed a Free and Informed Consent form.

Results

Of the total of teachers working at the 24 schools selected, 279 (55.8%) agreed to take part in the study and returned the completed questionnaires. The majority of the teachers were male (58.1%), were up to 40 years old (58.5%), worked in schools in the Center/North region (43.0%), worked at more than one school (75.9%), had graduated from public higher education institutions (97.5%) and were postgraduates (69.1%). On average, teachers had been teaching for 13.1 ± 7.8 years (Table 1).

Violence at school was reported by 54.8% (95%CI 48.8;60.7) of teachers. Verbal insults were the most frequent form (39.4%; 95%CI 33.7;45.4), followed by pressure to benefit a student against their will (26.9%; 95%CI 21.8;32.6), sexual harassment (15.4%; 95%CI 11.5;20.3), intimidation with a firearm or other weapon (2.2%; 95%CI 0.8;4.8) and physical violence (1.4%; 95%CI 0.5;3.99) (Figure 1).

Schools located in the Eastern region (PR=1.65; 95%CI 1.14;2.39) or Southern region (PR=1.48; 95%CI 1.05;2.08) had positive association with violence, compared to schools in the Center/North region (Table 2). Having been the target of verbal insults was positively associated with working in public schools (PR=1.45; 95%CI 1.00;2.11) and with schools in the Eastern region (PR=1.85; 95%CI 1.17;2.93) and Southern region (PR=1.59; 95%CI 1.05;2.41; Table 3), compared to schools in the Center/North region. Working at just one school was negatively associated with sexual harassment (PR=0.93; 95%CI 0.86;0.99; Table 4).

The immunobiological products with the highest number of wasted doses were hepatitis B vaccine, diphtheria and tetanus adsorbed vaccine/adult (dT), diphtheria, tetanus and pertussis adsorbed vaccine (DTP), oral poliovirus vaccine (OPV) and measles, mumps and rubella vaccine (MMR), probably because these vaccines are provided in multidose vials.

The main reason for physical waste was electric power shortage (54.9%), followed by the main power

Table 1 – Characteristics of public and private high school teachers in Teresina, Piauí, 2016 (n=279)

Characteristics	n	%
Sex (n= 279)		
Female	162	58.1
Male	117	41.9
Age group (n=224)^a		
Up to 40 years old	131	58.5
Over 40 years old	93	41.5
School administration (n= 279)		
Private	140	50.2
Public	139	49.8
Teaching region (n=279)		
Center/North	120	43.0
East	46	16.5
Southeast	46	16.5
South	67	24.0
Graduated from (n= 278)^a		
Public university	271	97.5
Private university	7	2.5
Postgraduate (n=275)^a		
Yes	190	69.1
No	85	30.9
Time as a teacher (n= 241)^a		
Up to 13 years	124	51.5
Over 13 years	117	48.5
Teaches at more than one school (n= 274)^a		
Yes	208	75.9
No	66	24.1

a) Losses due to questionnaires with no answer for this variable.

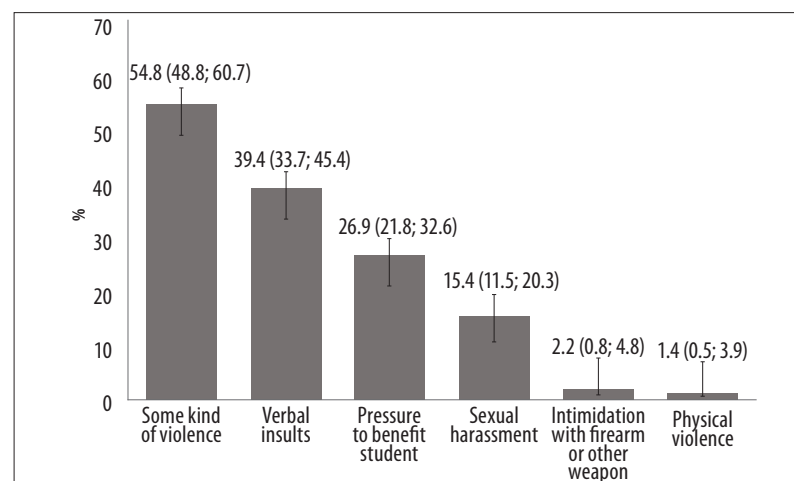
**Figure 1 – Prevalence and 95% confidence interval of violence against public and private high school teachers in Teresina, Piauí, 2016 (n=279)**

Table 2 – Prevalence ratio of violence against teachers and 95% confidence interval, according to sociodemographic and professional aspects, in public and private high schools in Teresina, Piauí, 2016 (n=279)

Variables	Some kind of violence		Crude PR ^a		Adjusted PR ^a	
	n	%	95%CI ^b	p-value ^c	95%CI ^b	p-value ^c
Sex				0.969		0.430
Male	89	54.9	1.00 (0.80;1.24)		0.89 (0.67;1.18)	
Female	64	54.7	1		1	
Age group				0.596		0.341
Over 40 years old	53	57.0	1.06 (0.84;1.35)		1.17 (0.84;1.62)	
Up to 40 years old	70	53.4	1		1	
School administration				0.252		0.794
Public	81	58.3	1.13 (0.91;1.40)		1.03 (0.78;1.38)	
Private	72	51.4	1		1	
Teaching region				0.035		0.021
East	31	67.4	1.47 (1.11;1.94)		1.65 (1.14;2.39)	
South	42	62.4	1.36 (1.04;1.78)		1.48 (1.05;2.08)	
Southeast	25	54.3	1.18 (0.85;1.64)		1.14 (0.74;1.76)	
Center/North	55	45.8	1		1	
Postgraduate				0.939		0.809
Yes	106	55.8	1.00 (0.80;1.26)		0.96 (0.71;1.30)	
No	47	55.3	1		1	
Time as a teacher				0.445		0.309
Over 13 years	68	58.1	1.09 (0.87;1.36)		1.19 (0.84;1.67)	
Up to 13 years	66	53.2	1		1	
Teaches at more than one school				0.916		0.643
Yes	115	55.3	1.01 (0.78;1.30)		0.92 (0.65;1.29)	
No	36	54.6	1		1	

a) Prevalence ratio.
b) 95% confidence interval.
c) Wald test.

switch being turned off (10.6%), equipment-related problems (9.2%), refrigerator being unplugged (7.7%), refrigerator door left open (6.3%) and forgetting to put vaccines in the refrigerator (4.7%), among others (Figure 1).

Discussion

Violence at school was reported by over half of Teresina's high school teachers in 2016, with verbal insults being the most frequent form of violence. Working in public schools favored occurrence of verbal insults, and being male was positively associated with sexual harassment. Teachers who worked at schools located in the central regions of the city and who worked at just one school were less exposed to situations of sexual harassment in the school environment.

Low teacher uptake with regard to participating in the study compromises the external validity of the findings. Despite have visited each school five times, the data collection method, which allowed the possibility of answering the questionnaire at home, may have caused participant loss and selection bias. The results are also subject to information bias, due to the complexity of the issue and possible fear of retaliation in the work environment in the event of participants revealing situations that should be officially reported.

Violence prevalence was found to be lower than that found in previous studies. This may be attributable to possible selection and information bias. In addition, anonymous studies show higher rates of school violence, principally when teachers fear retaliation or judgment.⁵ A national study conducted in the United States in 2009, found that 80% of teachers reported some kind of

Table 3 – Prevalence ratio of verbal insults against teachers and 95% confidence interval, according to sociodemographic and professional aspects, in public and private high schools in Teresina, Piauí, 2016 (n=279)

Variables	Verbal insults		Crude PR ^a		Adjusted PR ^a	
	n	%	95%CI ^b	p-value ^c	95%CI ^b	p-value ^c
Sex				0.143		0.650
Female	52	44.4	1.24 (0.93;1.65)		1.08 (0.77;1.51)	
Male	58	35.8	1		1	
Age group				0.736		0.114
Over 40 years old	39	41.9	1.05 (0.76;1.45)		1.37 (0.92;2.02)	
Up to 40 years old	52	39.7	1		1	
School administration				0.014		0.048
Public	65	46.8	1.45 (1.07;1.96)		1.45 (1.00;2.11)	
Private	45	32.1	1		1	
Teaching region				0.032		0.033
East	25	54.4	1.76 (1.20;2.56)		1.85 (1.17;2.93)	
South	29	43.3	1.40 (0.95;2.06)		1.59 (1.05;2.41)	
Southeast	19	41.3	1.34 (0.86;2.07)		1.22 (0.73;2.05)	
Center/North	37	30.8	1		1	
Postgraduate				0.060		0.226
Yes	82	43.2	1.41 (0.98;2.02)		1.27 (0.86;1.89)	
No	26	30.6	1		1	
Time as a teacher				0.494		0.096
Up to 13 years	52	41.9	1.11 (0.81;1.52)		1.41 (0.94;2.13)	
Over 13 years	44	37.6	1		1	
Teaches at more than one school				0.264		0.882
Yes	86	41.4	1.24 (0.85;1.81)		1.04 (0.65;1.64)	
No	22	33.3	1		1	

a) Prevalence ratio.

b) 95% confidence interval.

c) Wald test.

victimization at school, whether from students, parents or other education professionals in the school environment.⁵ A cross-sectional study conducted in the Brazilian state of Pernambuco in 2013 with 525 municipal school teachers, revealed 42.9% prevalence of verbal threats and 22.9% prevalence of physical violence, perpetrated mainly by students.²

Verbal insults were the kind of violence most reported by teachers, principally among public school teachers. Occurrence of this type of violence was most frequent in a descriptive study conducted in South Korea in 2012,⁶ and also in a cross-sectional study conducted in Brazil in 2013, in which the authors highlighted that teachers attribute verbal abuse to their being underrated in the classroom.⁸ Young people frequently use foul language

and, in a setting in which teachers are underrated and their role in the classroom is disrespected, student may have recourse to verbal abuse in order to offend teachers.⁴ Verbal violence can also be related to the constant climate of conflicts caused by a school routine that does not enable students and teachers to listen democratically.¹²

Sexual harassment was most frequent among male teachers. In a national study in the United States which assessed national elementary school and high school data, sexual harassment was most common among male teachers in the majority of grades in which the study was conducted.¹⁶ In general, male teachers get more involved in situations involving conflicts between students and this makes them more vulnerable to

Table 4 – Prevalence ratio of sexual harassment against teachers and 95% confidence interval, according to sociodemographic and professional aspects, in public and private high schools in Teresina, Piauí, 2016 (n=279)

Variables	Sexual harassment		Crude PR ^a		Adjusted PR ^a	
	n	%	95%CI ^b	p-value ^c	95%CI ^b	p-value ^c
Sex				0.004		0.367
Female	10	8.6	1		1	
Male	33	20.4	2.38 (2.02;2.71)		1.03 (0.96;1.10)	
Age group				0.120		0.198
Over 40 years old	27	20.6	1		1	
Up to 40 years old	12	12.9	0.63 (0.81;1.03)		0.95 (0.87;1.03)	
School administration				0.236		0.168
Public	18	12.9	1		1	
Private	25	18	1.40 (0.96;1.17)		1.05 (0.98;1.13)	
Teaching region				0.113		0.203
East	5	10.9	1		1	
South	10	21.7	2.00 (1.81;2.12)		1.07 (0.99;1.16)	
Southeast	5	7.5	0.69 (0.51;1.07)		0.99 (0.80;1.10)	
Center/North	23	19.2	1.76 (0.98;1.91)		1.07 (0.99;1.16)	
Postgraduate				0.353		0.452
Yes	27	14.2	1		1	
No	16	18.8	1.32 (0.97;1.08)		1.03 (0.95;1.11)	
Time as a teacher				0.730		0.712
Up to 13 years	20	16.1	1		1	
Over 13 years	17	14.5	0.90 (0.84;1.19)		0.98 (0.89;1.08)	
Teaches at more than one school				0.323		0.033
Yes	35	16.8	1		1	
No	8	12.1	0.72 (0.63;1.06)		0.93 (0.86;0.99)	

a) Prevalence ratio.

b) 95% confidence interval.

c) Wald test.

situations of violence; moreover, female teachers feel more intimidated or fear being judged if they report cases of harassment.⁵

Teaching at just one school was negatively associated with sexual harassment. Similar results were found by other Brazilian studies conducted in 2011⁴ and 2013⁸ in the state of Paraná. In the first study, physical violence was associated with the fact of teachers working at two schools and, in the second study, association was found between the fact of teachers feeling insecure in some part of the school and working at more than one school. Long working hours, multiple workplaces and temporary employment contracts make teachers more vulnerable to situations of violence, as their ties with the institution and their decision-making power are reduced.^{4,8}

Teachers up to 40 years old and who had worked for less time as teachers comprised the most victimized age group. These facts corroborate a study conducted in Brazil in 2013, in which teachers up to 40 years old suffered more violence, while this was not found among older teachers and those with more classroom experience.⁸ Younger education professionals are generally more willing to face precarious working conditions until they manage to get a stable career with a better salary, in addition to their working at several schools and thus being more exposed to violence. It is believed that older and more experienced teachers are able to deal better with conflict situations.^{8,17}

Violence was found to be less frequent in central regions of the city and regions with lower crime rates.

Perceived sensation of insecurity in a neighborhood is directly related to that perceived at school. Violent regions and communities also have high school violence prevalence rates.^{8,18} Moreover, in general schools located in distant and hard to reach regions with high rates of violence frequently have vacant teaching positions, which are an option for teachers wishing to work an additional shift in order to increase their income.⁸ In Teresina, schools with lower indicators of violence against teachers are located in the Center/North and Southeast regions of the city, where commerce is intense and violent crime rates are lower. The region with the highest frequency of violence against teachers was the same region where urban violence rates increased between 2006 and 2016.¹⁹

The findings of these studies can be useful for targeting health actions and policies aimed at preventing

violence against teachers in the school environment. Such initiatives need to reach teachers who work in public schools in poorer outskirts regions and regions with high indicators of urban violence, who teach at more than one school and who are male.

Authors' contributions

Lima PVC, Rodrigues MTP and Mascarenhas MDM planned the study design, analyzed the data, reviewed the text and prepared the draft version of the manuscript. Gomes KRO, Miranda CES and Frota KMG contributed to data analysis and interpretation, as well as taking part in writing and reviewing important intellectual content. All the authors have approved the final version of the article and are responsible for its entire contents and for guaranteeing its accuracy.

References

1. Koga GKC, Melanda FN, Santos HG, Sant'Anna FL, González AD, Mesas AE, et al. Fatores associados a piores níveis na escala de Burnout em professores da educação básica. *Cad Saúde Colet* [Internet]. 2015 set [citado 2020 jan 20];23(3):268-75. Disponível em: <http://www.scielo.br/pdf/cadsc/v23n3/1414-462X-cadsc-23-3-268.pdf>. doi: 10.1590/1414-462X201500030121
2. Lima AFT, Coêlho VMS, Ceballos AGC. Violência na escola e transtornos mentais comuns em professores. *Rev Port Enferm Saúde Mental* [Internet]. 2017 dez [citado 2020 jan 20];18(3):31-6. Disponível em: http://www.scielo.mec.pt/scielo.php?script=sci_arttext&pid=S1647-21602017000300005. doi: 10.19131/rpasm.0189
3. Lira A, Gomes CA. Violence in schools: what are the lessons for teacher education? *Ensaio: aval pol públ educ*. 2018; 26 (100): 759-79.
4. Levandoski G, Ogg F, Cardoso FL. Violência contra professores de educação física no ensino público do estado do Paraná. *Motriz* [Internet]. 2011 jul-set [citado 2020 jan 20];17(3):374-83. Disponível em: <http://www.scielo.br/pdf/motriz/v17n3/01.pdf>
5. McMahon SD, Martinez A, Espelge D, Rose, C, Reddy LA, Lane K, et al. Violence directed against teachers: results from a national survey. *Psychol Sch* [Internet]. 2014 Jun [cited 2020 Jan 20];51(7):753-66. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1002/pits.21777>. doi: 10.1002/pits.21777
6. Moon B, McCluskey J. School-based victimization of teachers in Korea: focusing on individual and school characteristics. *J Interpers Violence* [Internet]. 2014 Dec [cited 2020 Jan 20];1-22. Available from: <https://journals.sagepub.com/doi/full/10.1177/0886260514564156>. doi: 10.1177/0886260514564156
7. Nesello F, Sant'Anna FL, Santos HG, Andrade SM, Mesas AE, González AD. Características da violência escolar no Brasil: revisão sistemática de estudos quantitativos. *Rev Bras Saúde Mater Infant* [Internet]. 2014 abr-jun [citado 2020 jan 20];14(2):119-36. Disponível em: <http://www.scielo.br/pdf/rbsmi/v14n2/1519-3829-rbsmi-14-02-0119.pdf>. doi: 10.1590/S1519-38292014000200002
8. Melanda FN, Santos HG, Salvagioni DAJ, Mesas AE, Gonzalez AD, Andrade SM. Violência física contra professores no espaço escolar: análise por modelos de equações estruturais. *Cad Saúde Pública* [Internet]. 2018 [citado 2020 jan 20];34(5):1-12. Disponível em: <http://www.scielo.br/pdf/csp/v34n5/1678-4464-csp-34-05-e00079017.pdf>. doi: 10.1590/0102-311x00079017
9. Araújo PV, Ferreira CLL, Pereira ADA, Rangel RF. Espaço Escolar: O professor frente à problemática da criança em situação de violência. *Rev Soc Bras Enferm Ped* [Internet]. 2014 dez [citado 2020 jan 20];14(2):129-37. Disponível em: https://sobep.org.br/revista/images/stories/pdf-revista/vol14-n2/v_14_n_2-artigo_pesquisa-espaco_escolar_o_professor_frente_a_problematika.pdf

10. Gamboa Suarez AA, Ortiz Gelvez JA, Muniz Garcia PA. Violência em contextos escolares: percepção de docentes sobre manifestações de violência em instituições educativas em Cúcuta-Norte de Santander. *Psicogente* [Internet]. 2017 jan-jun;20(37):89-98. Disponível em: <http://www.scielo.org.co/pdf/psico/v20n37/0124-0137-psico-20-37-00089.pdf> . doi: 10.17081/psico.20.37.2420
11. Coelho, MTBF. Bullying escolar: revisão sistemática da literatura do período de 2009 a 2014. *Rev Psicopedag* [Internet]. 2016 [citado 2020 jan 20];33(102):319-30. Disponível em:<http://pepsic.bvsalud.org/pdf/psicoped/v33n102/10.pdf>
12. Giordani JP, Seffner F, Dell'aglio DD. Violência escolar: percepções de alunos e professores de uma escola pública. *Psicol Esc Educ* [Internet]. 2017 jan-abr [citado 2020 jan 20];21(1):103-11. Disponível em: <http://www.scielo.br/pdf/pee/v21n1/2175-3539-pee-21-01-00103.pdf> . doi: 10.1590/2175-3539201702111092
13. Gomes KRO, Miranda CES, Frota KMG, Rodrigues MTP, Mascarenhas MDM, Araújo RSRM, Araújo TME. Análise da situação de saúde no ensino médio: metodologia. *Rev Epidemiol Controle Infecç* [Internet]. 2019 jan-mar [citado 2020 jan 20];9(1):1-18. Disponível em: <https://online.unisc.br/seer/index.php/epidemiologia/article/viewFile/11873/7908>. doi: 10.17058/reci.v9i1.11873
14. Secretaria de Planejamento do Estado do Piauí (PI). Revisão e atualização do plano diretor do município de Teresina – PI: plano de trabalho, 1º produto [Internet]. Teresina: SEPLAN; 2017 [citado 2020 jan 20]. 31 p. Disponível em: https://semplan.teresina.pi.gov.br/wp-content/uploads/sites/39/2018/09/Teresina_Produto-1.pdf
15. Secretaria de Estado da Educação do Piauí (PI). Coordenação de Estatística. Censo escolar 2014 (em Excel). Teresina: [S.n]; 2015.
16. Musu-gillette L, Zhang A, Wang K, Zhang J, Kemp J, Diliberti M. Indicators of school crime and safety: 2017 [Internet]. Washington: National Center for Education Statistics; 2018 [cited 2020 Jan 20]. 253 p. Available from: <https://nces.ed.gov/pubs2018/2018036.pdf>
17. Gerberich SG, Nachreiner NM, Ryan AD, Church TR, McGovern PN, Geisser MS, et al. Case-control study of student-perpetrated physical violence against educators. *Ann Epidemiol* [Internet]. 2014 May [cited 2020 Jan 20];24(5):325-32. Available from: <https://www.sciencedirect.com/science/article/pii/S1047279714000684?via%3Dihub>. doi: 10.1016/j.annepidem.2014.02.006
18. Lopez V, Torres-Vallejos J, Villalobos-Parada B, Gilreath TD, Ascorra P, Bilbao M, et al. School and community factors involved in Chilean students' perception of school safety. *Psychol Schs* [Internet]. 2017 Sep [cited 2020 Jan 20];54(9):1-13. Available from: <https://onlinelibrary.wiley.com/doi/10.1002/pits.22069> . doi: 10.1002/pits.22069
19. Secretaria de Segurança Pública (PI). Núcleo Central de Estatística e Análise Criminal. Relatório indicadores de criminalidade 2018 [Internet]. Teresina: SSPPI; 2018 [citado 2020 jan 20]. Disponível em: http://www.ssp.pi.gov.br/download/201901/SSP09_8bf9d02b01.pdf

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