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Typification of bullying suffered by fifth grade students in the city of Capitão Leônidas Marques (South of Brazil) and associated factors

Tipificação do bullying sofrido por escolares dos quintos anos do município de Capitão Leônidas Marques (PR) e fatores associados

Resumo

Objetivo: Caracterizar a ocorrência de ações de *bullying* em escolares dos quintos anos da rede municipal de ensino de Capitão Leônidas Marques-PR e associá-la a fatores sociais, antropométricos e relativos à escola e ao agressor. **Métodos:** Estudo transversal realizado com 173 escolares, com idades entre 9-13 anos. Foi aplicado um questionário, adaptado de Páscoa (2013), que buscou identificar se os escolares sofriam *bullying* e de que forma o sofriam. Foram realizados testes de hipóteses (Qui-Quadrado de Pearson) para verificar a associação entre as variáveis qualitativas: sofrer *bullying* e ocorrência de sobrepeso/obesidade; sofrer *bullying* e pertencer ao Programa Bolsa Família; frequência semanal de sofrimento de *bullying*, quem pratica *bullying* (se um único agressor ou grupo), local da escola em que sofre *bullying* e tipo de *bullying* (agressão física ou verbal); e associação entre o local em que os indivíduos sofrem *bullying* no ambiente escolar e sobrepeso/obesidade. **Resultados:** A maioria das associações supracitadas não apresentaram significância estatística. Porém, quando avaliada a associação entre tipo de *bullying* (físico ou verbal) e a ocorrência de sobrepeso/obesidade, encontrou-se que escolares com sobrepeso/obesidade sofrem frequentemente mais *bullying* na forma verbal, enquanto a agressão física é mais sofrida pelos escolares sem sobrepeso/obesidade ($p=0,042$). **Conclusão:** Recomenda-se que sejam feitas ações que previnam a prática de *bullying* dentro das escolas, atentando-se especialmente para as agressões verbais praticadas contra os escolares com sobrepeso/obesidade.

Palavras-chave: Assédio Escolar. Comportamento da Criança. Alterações do Peso Corporal.

Abstract

Objective: Characterize the occurrence of bullying actions in fifth grade students in the municipal education network of Capitão Leônidas Marques-PR and associate it with social, anthropometric and school-related factors and aggression. **Methods:** Cross-sectional study performed with 173 students, aged 9-13 years. A questionnaire was applied, adapted from Páscoa (2013), in order to identify if students suffered bullying aggressions and how they were bullied. Hypothesis tests (Pearson's Chi-Square) were accomplished to verify the association between qualitative variables: being bullied and overweight/obesity; being bullied and belong to the *Bolsa Família* Program; weekly frequency of being bullied, who practice bullying (whether a single aggressor or group), location in the school where the bullying occurred, and type of bullying (physical or

verbal aggression); and the association between the place where bullying occurs in the school environment and overweight/obesity. **Results:** Most of the aforementioned associations were not statistically significant. However, assessing the association between the type of bullying (physical or verbal) and the occurrence of overweight/obesity was observed that overweight/obese students often suffer more verbal bullying, while physical aggression is more suffered by non- overweight/obesity students ($p=0.042$). **Conclusion:** It is recommended actions to prevent the practice of bullying inside the schools, with special attention to verbal aggressions practiced against overweight/obese students.

Keywords: School Harassment. Child Behavior. Body Weight Changes.

INTRODUCTION

Excess weight has been increasing in the last two decades, according to studies performed with children from all Brazilian socioeconomic classes.¹ Data from the Pesquisa Nacional de Saúde do Escolar (PENSE) (in English: National School Health Survey (NSHS)), from 2015, demonstrate that among schoolchildren aged 13-15 years, there were 17.0% and 8.1% of overweight and obesity, respectively. Analyzing the South Region of the country, the data are 19.4% and 11.1% of overweight and obesity, respectively.² Another study, with 20.113 children/adolescents from the Rede Nacional de Ensino de Educação Infantil e Fundamental – RENEIF (in English: National Network of Early Childhood and Elementary Education – NNECEE) of Serviço Social do Comércio (in English: Social Service of Commerce), in 2012, with students aged 3-16.9 years, observed that the prevalence of excess body weight (overweight/obesity) was 30.0% for all students; boys accounted for 32.3% and girls for 27.6%.³

Overweight or obese children and adolescents can be the target of bullying,⁴ which can occur in various contexts and spaces, specially in schools.⁵ Bullying can be defined as a set of negative acts intentionally committed by one or more people against a victim, repeatedly and for a long time. Negative actions, in turn, are defined as attitudes inflicted by the aggressor, causing injury or discomfort to the victim, and characterizing as “aggressive behavior” and unbalanced, in which the victim is unable to defend himself proportionately.⁵ Bullying materializes through various forms of aggression: verbal (with threats, intimidation, gossip, etc.), physical (punches, kicks, slaps, etc.), relational (rejection in sports, exclusion, isolation, practice of obscene gestures),⁶ and cyberbullying (performed on the internet or in other information and communication technology means and devices).⁷

Being bullied can lead to long-term health problems. Children and adolescents victims of aggression tend to be adults with physiological, self-esteem and body image problems, being much more likely to develop eating disorders, anxiety, stress and depression.^{5,8} A Canadian study, with 3.829 schoolchildren aged 9-14 years, observed that children who suffered bullying in moderate and aggressive ways, were more likely to feel isolated, to experience feelings of anxiety and depression, also they were more likely to have suicidal ideation and tried alcohol,⁴ consequences that demonstrates the extreme importance of early restraint of such acts.

In Brazil, a study including 409 students from two schools in Florianópolis, aged 8-16 years, showed that 11.1% of boys and 15.4% of girls reported having been bullied at school at least once or twice, during the last three months prior to the survey.⁹ Another study, carried out in the city of Realeza – PR, with a sample of 208 schoolchildren aged 12-14 years, identified that 34.6% had already suffered bullying in schools.¹⁰

In addition to anthropometric factors, some studies have identified social factors related to bullying. In Turkey, a study carried out with 1.680 students from the fifth to eighth grade of elementary school showed that the low level of parental education was associated with a greater chance of belonging to the group of adolescents who suffered bullying and with a greater chance of belonging to the group that was both victim and aggressor.¹¹

In view of these considerations, this work aims to typify and evaluate the occurrence of bullying in students who are in the transition from childhood to adolescence, in the municipality of Capitão Leônidas Marques – PR, as well as to associate the occurrence of bullying with social factors, anthropometric and related to the school and the aggressor.

METHODS

This study is a subproject, nested within a larger project approved by the Comitê de Ética em Pesquisa com Seres Humanos (in English: Ethics Committee for Research with Human Beings) of the Universidade Federal da Fronteira Sul – UFFS (in English: Federal University of Fronteira Sul – FUFs), entitled “Association between food consumption, risk of cardiovascular diseases and bullying in schoolchildren”.

This is a cross-sectional study. The research was placed in the municipality of Capitão Leônidas Marques, considered as small size, located in the west of Paraná, which according to the Instituto Brasileiro de Geografia e Estatísticas – IBGE (in English: Brazilian Institute of Geography and Statistics – BIGS) census (2010) has a population of 14.970 inhabitants.¹² Data from the Secretaria de Educação do município (in English: Municipal Education Department) indicate that the city, in 2018, presented 1.596 students enrolled in municipal schools in the public education network. Of these, 218 students were in the fifth year of the initial education grades in the municipal network. Therefore, all fifth-year students were eligible for this study, characterizing it as a census-type study. The fifth grade students were chosen by the researchers in collaboration with the nutritionist from the Alimentação Escolar (in English: Schoolar Feeding) sector, since these students are in the transitional phase from childhood to adolescence and in the following year, they would no longer be enrolled in the municipal education network (in the Paraná State, the 6th to 9th grades of Elementary School is managed by the Secretaria de Estado da Educação (in English: State Department of Education)), allowing the municipality to convey to the state network an overview of the bullying problem among these students.

Inclusion criteria were: students present on the survey days; with the term of consent signed by the parents that signed the assent form of the minor; and those who agreed to be part of the research on the collection days. The survey occurred between the 13th and 17th of August 2018.

Anthropometric Profile

To assess the anthropometric profile, measurements of weight and height were taken, following the procedures recommended by the World Health Organization (WHO) specific for children and adolescents.¹³ The Body Mass Index (BMI/Age and gender) was used to verify if the students were at the recommended weight. For the BMI/Age and gender classification, the WHO growth curves for children and adolescents aged 5-19 years cutoff points were used, and when BMI/Age and gender < 85th percentile, students were classified as without overweight/obesity, and when BMI/Age and sex \geq 85th percentile, they were classified as being overweight/obese.¹⁴ Measurements were verified only once, in a room reserved for this purpose, by previously trained Nutrition students, at a time stipulated by the educational institution.

Weight was measured using a Welmy® digital scale, with a maximum capacity of 150 kilograms (Kg) and variation of \pm 100 grams (g). The students were positioned on the scale barefoot, with as little clothing as possible, with their backs to the scale, feet together, shoulders erect and looking at the horizon, so the body weight was equally distributed on both feet. Height was measured using a vertical mobile stadiometer with a scale in centimeters (cm) and a precision of one millimeter (mm). The students were accommodated with their backs to the instrument, positioned upright, barefoot, without the presence of adornments in the girls' hair, arms loose at the side of the body, feet together, heels, calves, buttocks and shoulders touching the support surface (wall) and looking at the horizon. The moving part of the stadiometer was positioned at the top, at the highest point, and the measurement was read.¹⁵

Bullying questionnaire

To better assess possible bullying actions in the school environment, a questionnaire adapted from Easter (2013) was applied, divided into two parts: the first contained questions of a sociodemographic nature to characterize the students participating in the research, and the second contained questions related to problems linked with bullying.¹⁶

Students who reported “no” to the question “Do your friends often hurt you? (hit, push, pull, speak badly, frighten)” were dismissed; and students who claimed to suffer from some type of aggression answered the following questions: “How many times a week do your friends practice mean acts against you?”; “How did they hurt you?”; “Where in the school do they usually hurt you?”; “Who usually hurts you?”; “How many times in the last week have they hurt you?” From these questions, the following qualitative variables were generated: suffering bullying frequency; type of aggression suffered (physical or verbal); place of suffering from bullying; and the bully (one person or group).

Bolsa Família – current Auxílio Brasil

To identify whether there is an association between a social factor and the occurrence of bullying, we chose to collect information on which children belonged to families benefiting from the direct income transfer program, which is a proxy variable of monthly family income. To this end, data on belonging to the Bolsa Família Program (BFP) were collected through the Sistema Educacional de Registro Escolar – SERE system (in English: Educational System of School Registration – ESSR). The term “Bolsa Família” will be maintained in this manuscript because it is the current program with this terminology and respective regulations at the time of the research (2018).

A Data analysis

After collection, the data were tabulated in a Microsoft Excel spreadsheet. The free Perfect Statistics Professionally Presented (PSPP) software was used to perform the descriptive and association analyses. Association tests were performed using Pearson's Chi-Square, considering a significance level of 95% for rejection of null hypotheses ($p < 0.05$).

In the analysis of the anthropometric profile, it was decided to group individuals with malnutrition and eutrophy into a single category, named “schoolchildren without overweight/obesity”, as only four students were malnourished (2.3% of the total).

Ethical Aspects of Research

Before starting the research, the Secretaria de Educação do Município (in English: Municipal Secretary of Education) of Capitão Leônidas Marques signed the Declaração de Ciência e Concordância (in English: Declaration of Acknowledgment and Agreement). Afterwards, the project was submitted to the Ethics Committee for Research with Human Beings of the Universidade Federal da Fronteira Sul – UFFS (in English: Federal University of Fronteira Sul – FUFFS), with the acceptance protocol number 89192218.1.0000.5564.

Data collection was carried out in the week of August 13th to 17th, 2018, only after the signing of the Free and Informed Consent Form by the parents and the Term of Assent by the students.

RESULTS

For this study, were calculated a total of 218 students from all fifth years of the municipal education network. Casualty occurred during the collection process, as some students did not agree to participate, others did not attend on the day of data collection and some parents did not grant authorization to participate, resulting in 173 participants, of both sexes (79.3% of those eligible).

The average age among the 173 evaluated students was 10.03 ± 0.65 years. Of these, 36.4% answered that they had already suffered bullying ($n = 63$), with 59.4% of victims being female ($p=0.612$). Considering the victims of bullying, 54.0% reported suffering verbal aggression, while physical aggression was suffered by 46.0% of the victims. Also of the total number of students, 40.5% were overweight/obese (data not shown in tables).

Table 1 shows the results of the associations between being bullied and the anthropometric profile of the students and being a beneficiary of the Bolsa Família Program (BFP). No statistically significant differences were found between being or not being overweight/obese and being bullied, but it is noteworthy that even among students without overweight/obesity, 60.3% suffered this aggression. There were also no statistically significant differences between receiving an income transfer benefit and being bullied.

Table 1. Associations between being bullied and the anthropometric profile of students and between the occurrence of bullying and being a beneficiary of the Bolsa Família Program, Capitão Leônidas Marques, PR, 2018

Suffered Bullying						
		No		Yes		P-value
		n	(%)	n	(%)	
Anthropometric Profile (n = 173)						
No Overweight/Obesity (n=103)		65	59.1	38	60.3	0.874
With Overweight/Obesity (n=70)		45	40.9	25	39.7	
Bolsa Família Program (n=173)						
Non-Beneficiary (n=136)		84	76.4	52	82.5	0.340
Beneficiary (n=37)		26	23.6	11	17.5	

In Table 2, it is observed that among those who reported being bullied ($n=63$), there are no significant differences between the weekly frequency of the aggressions suffered and the number of aggressors, with the place where the aggressions occurred and how they were practiced. Even so, it is important to note that those who were bullied more frequently (≥ 3 times a week) were mostly attacked by a group of colleagues (54.6%) and in places with more movement of people (hallways, stairs or during the interval – 63.6%).

Table 2. Associations of the variable “frequency of suffering bullying” with type of practitioners, location and type of aggression suffered, Capitão Leônidas Marques, PR, 2018.

Variables (n = 63)					
	Frequency of Suffering Bullying				P-value
	1 or 2 times		3 or more times		
	n	(%)	n	(%)	
<i>Who practices</i>					
One person (n = 37)	27	65.9	10	45.4	0.117
A group (n = 26)	14	34.1	12	54.6	
<i>Place where it is practiced</i>					
In the halls, on the stairs or in the interval (n = 46)	32	78.0	14	63.6	0.219
In the classroom or in the canteen (n = 17)	9	22.0	8	36.4	
<i>Bullying type</i>					
Physical aggression (n = 29)	21	51.2	8	36.4	0.259
Verbal aggression (n = 34)	20	48.8	14	63.6	

Regarding the location of the school where bullying occurs, regardless of the weekly frequency, 73.5% of the victims reported being attacked in the corridors, stairs or during the interval, while 26.5% suffered it inside the classroom or in the canteen (data not shown in tables). When analyzing the association between the place where the aggressions occurred and the anthropometric profile of the students (Table 3), it is highlighted that, although there is no statistical significance, it is observed that the individuals who suffered bullying in the corridors, stairs or interval are mostly those without overweight/obesity (65.2%). Students who suffered bullying in the classroom or canteen are mostly overweight/obese (58.8%). Regarding the aggressors, when they are alone, they practice bullying more prevalently with students without overweight/obesity (64.9% of the reports) and, when in a group, they equally attack these students and those with overweight/obesity (50.0%).

Table 3. Association between the place where individuals are bullied in the school environment, the type of aggressor and the anthropometric profile, Capitão Leônidas Marques, PR, 2018.

Factors related to the school and the aggressor	No		With		P-value
	Overweight/Obesity (n = 37)		Overweight/Obesity (n = 26)		
	n	(%)	n	(%)	
Location of the school where the students are bullied					
Hallways, stairs or interval	30	65.2	16	34.8	0.085
Classroom or canteen	7	41.2	10	58.8	
Who practices bullying					
One person	24	64.9	13	35.1	0.238
A group	13	50.0	13	50.0	

Table 4 shows that the prevalence of students who reported suffering physical aggression is significantly higher among those who are not overweight/obese, while those who suffered more verbal aggression are overweight or obese students ($p=0.042$).

Table 4. Association between type of bullying and anthropometric profile, Capitão Leônidas Marques, PR, 2018.

Bullying type					
Anthropometric profile (n = 63)	Physical aggression		Verbal aggression		P- value
	n	(%)	n	(%)	
No Overweight/ Obesity (n = 37)	21	72.4	16	47.1	0.042
With Overweight/ Obesity (n = 26)	8	27.6	18	52.9	

DISCUSSION

This study explored the occurrence of bullying actions and its association with anthropometric, social, and factors related to the school and the aggressor, among students from public schools in the city of Capitão Leônidas Marques – PR. The results contribute locally to the municipal plan for Segurança Alimentar e Nutricional (in English: Food and Nutrition Security), but it can also be used to monitor the occurrence and evaluate actions to prevent and deal with bullying in other municipalities. The results showed that more than

a third of the students reported having already suffered bullying. There was no statistical significance between being bullied and being overweight/obese, nor with being a beneficiary of the Bolsa Família Program. Regarding the association between the overweight/obesity variables and how many times a week the individuals were bullied with typifying variables (who the bullies were, where they practiced and how they practiced the aggressions), there was also no statistical significance. However, a significant association was observed between the type of aggression (physical or verbal) and the occurrence of overweight/obesity, with these students suffering more verbal aggression than their peers without overweight/obesity.

Regarding the prevalence of bullying found in this study, it is very similar to that observed in a survey carried out with 208 students from the 7th to the 9th grade in the municipality of Realeza – PR, in which 34.6% of these individuals had already suffered bullying.¹⁰ Another study, carried out in Camaragibe – PE in 2013, with 612 adolescents between 10-19 years old enrolled in state public schools, identified that the prevalence of bullying among these students was 21.7%.¹⁷ In Florianópolis – SC, in 2012 -2013, 975 individuals aged 11-14 years were studied, verifying that 12.3% of boys and 13.9% of girls reported being bullied.¹⁸ The study carried out in Florianópolis showed a lower percentage than in other regions. This may have occurred due to the fact that the sample in the city of Florianópolis was larger or because of the criteria adopted for classifying bullying, once in Florianópolis, individuals answered a self-administered questionnaire and bullying was classified using a scale, whereas in the present study, data were collected through interviews with students. In any case, these data are extremely worrying, as children and adolescents who suffer these attacks in schools tend to be adults with self-esteem and body image problems, with a much greater chance of developing problems such as eating disorders, anxiety and depression.^{5,8} It was also observed that bullied boys have higher blood levels of adrenaline, which is a stress-related hormone, and that, in adult life, they are more likely to have feelings related to depression.⁵

Regarding the prevalence of overweight/obesity among students from Capitão Leônidas Marques, a significantly higher rate was observed than those found in Florianópolis (40.5% versus 29.0%, respectively).¹⁶ In the municipality of Realeza, which is close to the city of Capitão Leônidas Marques (36.9 km away), the prevalence is closer: 34.1% of overweight/obesity.⁹ The index is also higher than the national data published by the Pesquisa de Orçamentos Familiares – POF (in English: Family Budget Research – FBR) for the years 1974-1975, 1989 and 2008-2009, revealing even greater concern. Data on children aged 5-9 years show that in the South Region there was an increase in overweight/obesity, and in 2008-2009 the highest percentages were found: 35.5% for females and 36.3% for the male. Among schoolchildren aged 10-11 years, data from the POF (in English: FBR) show that 30.5% of boys and 26.7% of girls were overweight/obese at the last assessment.¹⁹ Although the anthropometric profile was not associated with greater prevalence of bullying in the present study, it is noteworthy that 39.7% of the students who suffered bullying were overweight/obese. This prevalence indicates a more important condition for the occurrence of aggression while analyzed together with the social factor, since among those who suffered bullying, the minority was beneficiary of the BFP (17.5%). A similar relationship between being bullied and socioeconomic status was observed in Portugal, as among students who were bullied once or twice, the majority (42.5%) were of high socioeconomic status, but the prevalence also did not show a statistically significant difference ($p=0.505$).¹⁶ This may demonstrate that the socioeconomic level of students is not a motivating factor for colleagues to commit aggression. Another explanation would be that the study was carried out in public schools in the municipality of Capitão Leônidas Marques, what may imply in homogeneous sample in terms of socioeconomic levels.

The reasons why people with obesity, both moderate and severe, are bullied are linked to physical appearance.²⁰ Today's society worships muscular and shapely bodies, while considering overweight or obese bodies as belonging to lazy, insecure and unsuccessful people. However, studies published in the last decade

show that many children and adolescents with obesity are both victims of bullying and bullies,^{10,20,21} a behavior that Olweus had already described in the 1990s as a standard combination of anxiety and aggression reactions, whom the author called "provocative victims".⁵ In Italy, for example, among 947 children and adolescents, 27.5% of those evaluated reported only being bullied, while 33.3% of the total were identified as aggressor-victims.²⁰

Considering the victims of bullying in Capitão Leônidas Marques, 54.0% reported suffering verbal aggression and 46.0% physical aggression. The highest rate of verbal aggression in relation to physical aggression was also observed in other studies, such as the one carried out in the Metropolitan Region of Grande Vitória – ES, with 2.281 individuals enrolled in secondary education in 11 private and 43 public schools. This study showed that 33.8% of the aggressions occurred in the verbal form and 15.1% in the physical form, with the other percentages distributed in other classifications mentioned by the authors, such as cyberbullying, for example.²² In Camaragibe – PE, with 612 adolescents aged 10-19 years, it was noted that 82.2% of aggressions occurred verbally and 17.1% physically.¹⁵ Another study carried out in Portugal, with students in the 2nd and 3rd years of two schools, also observed that the highest frequency of aggression was verbal, occurring in 23.2% of the students, who suffered from nicknames and gossip about them or their body, while physical aggression, less frequent, was reported by 12.3% of the victims.¹⁶

These studies show that verbal bullying is practiced in schools as the main way to attack classmates. With regard to the frequency of suffering, in the present study it was also observed that those most frequently attacked (≥ 3 times a week) suffered more verbal aggression, while those who were less frequently attacked (1 or 2 times a week) were those who suffered more physical aggression. The same profile was observed in the La Rioja region, in northern Spain, where 9.4% of boys and 5.0% of girls, aged 13-18 years, reported suffering physical aggression only a few times. Verbal aggression, on the other hand, was reported by 8.1% of the girls, who suffered it many times.²³ Although it seems less harmful because it does not harm the body, this type of aggression is psychologically and socially harmful, and may result, in the school environment, absenteeism and low performance.

This was observed in a review study, which observed that among fifth-year-olds, victims of bullying were the ones who most missed school in the United States of America and England, compared with those who are victim-aggressors and with students not involved in bullying. Absenteeism was directly related to low school performance, measured through the adolescents' grades.²⁴

Regarding the location of the school where bullying occurs, it was observed in Capitão Leônidas Marques that most victims suffer aggression in more open places and with greater circulation of classmates (corridors, stairs or during interval), which may be related to the greater difficulty of teachers to monitor aggressions in these places. Otherwise, the study in Camaragibe – PE, showed that the highest prevalence of aggression occurs in the classroom, with 60.2% in this environment and 4.7% in the cafeteria.¹⁵ In Belo Horizonte – MG, in 2009, among 598 adolescents aged between 14 and 17 years, it was found that 55.1% suffered bullying inside the school and 15.4% on the way to school.²⁵ In the present study, when the sample was stratified by anthropometric profile, it was observed that among overweight/obese students, bullying occurred more often in the classroom or cafeteria, similar to what was found in Camaragibe. This finding points to the concern that teachers may also be avoiding curbing the practice of bullying with obese students, while the class occurs. The canteen, as it is a space for purchasing food, seems to be another place where it is easy for the perpetrator to intimidate the overweight/obese victim.

Olweus,⁵ when describing how passive victims of bullying are inserted in the school environment, pointed out, already in the 1990s, that they are in a state of solitude and abandonment. Such findings require from the public sector an intense training of educators to repress the practice of bullying in the school

environment. According to the study by Brown et al.,²⁶ school directors are even more important for the implementation and monitoring of policies to curb bullying in schools. However, they report that they still do not have all the apparatus to intervene in order to help bullies who have mental health problems.

Regarding the types of aggressors, in Capitão Leônidas Marques, 58.7% of the victims of bullying stated that only one individual was the aggressor. Opposite prevalences were observed in the study in Portugal, in which 18.2% of the victims reported that only one student was the aggressor, versus 25.2% a group of aggressors.¹⁶ A possible explanation for this contradiction would be the fact that, in Portugal, the number of the evaluated sample was greater or also the sociocultural difference of the countries.²⁷

Aggression provoked by a group may reflect the need for social belonging and peer approval, a situation in which some students, even if they are not the main aggressor, approach the group to feel included.²⁸ A Dutch study observed that friendships occur in the long term between two aggressors. This happened in two ways: the first was between bullies who attacked the same victim; and the second, when friends of bullies started to attack adolescents who were already victims of their friend.²⁹ The fact that a single aggressor was more prevalent in the present study may be a positive sign, indicating that many of the students are no longer more agreeing with the bully and refusing to be part of the bullying group.

The present study had some limitations, such as the number of evaluated being lower than the studies found in the area and the data collection being cross-sectional. On the other hand, this study was carried out in partnership with the nutritionist responsible for the municipality's Education sector and is added to the Plano Municipal (in English: Municipal Plan) for Segurança Alimentar e Nutricional – SAN (in English: Food and Nutritional Security – FNS), which enhances the execution of actions that can minimize the problems found in the evaluated age group.

CONCLUSION

The results of this study show that more than a third of fifth-year students have already suffered bullying at school, with verbal aggression being the most frequent. No significant associations were observed between the occurrence of all forms of bullying and anthropometric, social, or school-related factors. However, when stratifying the type of bullying practiced, a significant association was found with anthropometric status, with overweight/obese students suffering verbal aggression more frequently and physical aggression being more suffered by non-overweight/obese students.

Finally, the importance of preventive actions within schools is highlighted, with the possibility of training teachers to coordinate more positive discourses in relation to health promotion and bullying prevention. The nutritionist responsible for education can also develop activities related to the promotion of healthier eating habits, aiming at reducing the prevalence of overweight and obesity.

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Rutkankis ALS contributed to the conceptualization and planning of the research project, collection, tabulation, analysis and interpretation of data, description and application of methodologies, delivery of feedback to schools, writing of draft and final manuscript. Rossi CE contributed to correcting the research project, describing and applying methodologies, supervising the project, supervising draft writing and improving and approving the final manuscript. Fanin ELBB contributed in helping and supervising the application of methodologies, helping in supervising the writing and approval of the final manuscript.

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