

Involvement of students with ASD in bullying according to multiple informants

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Abstract

There are few studies on people diagnosed with Autism Spectrum Disorder (ASD) and their involvement in school bullying in Brazil, especially because many of these children have been enrolled in regular schools. In this cross-sectional analytical study, we investigate how students with ASD experienced bullying situations, according to themselves, their parents and their Physical Education (PE) teachers. We also investigate how much they know about this phenomenon. We interviewed a total of 133 individuals, 63 parents (97% female), 51 PE teachers (56.9% male and 78% public school teachers) and 19 students with ASD (18 male). We selected the participants from a special education institution in Fortaleza, Ceará. Our team performed structured interviews according to each category of participant. PE teachers showed a greater understanding of bullying than parents and students, but five teachers naturalized the problem by calling it “roughhousing”. A total of 30 parents (47.6%) claimed not to know whether the child had experienced bullying, while 33 (52.4%) were aware; 76% identified the child as a victim, 21% as a bully-victim, and 3% as a bully. According to the teachers, 53% of students with ASD were not involved in bullying situations, while 47% of teachers reported that special-needs children were victims. Finally, 63% of the students declared themselves victims. These differences were statistically relevant. Our results indicate that there is a need for educational programs for the entire school community in order to prevent bullying and promote the effective inclusion of students with ASD.

Keywords

Bullying – Autism Spectrum Disorder – Regular Schools – Inclusion.

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Introduction

Bullying in the school environment is a dangerous manifestation of violence among students that damages the healthy development of children and teenagers. This phenomenon is defined as repeated and intentional aggressions prompted by school children toward others to cause suffering, pain, and distress. Assaults may be physical, psychological, verbal and/or sexual and occur directly or indirectly. Direct bullying is effective when provocations are explicit and immediate between bullies and victims. Indirect or relational bullying occurs in a more subtle way, through exclusion, social isolation or through rumors and intrigue. In bullying practices, individuals may be involved as bullies, victims, bully-victims or witnesses (OLWEUS, 2013; RETTEW; PAWLOWSKI, 2016).

School bullying is a manifestation of an unequal power dynamic because the victims usually have difficulties to defend themselves from the provocations of the aggressors (OLWEUS, 2013; RETTEW; PAWLOWSKI, 2016). Usually, victims are not well-developed in social skills concerning assertiveness, self-defense, and conflict resolution, in addition to having a limited or unstable social network (GONZALEZ; RAMIREZ, 2017). On the other hand, bullies, or the agents in the violent relationship, are often taller, older, or stronger, and their peers may reinforce and partake in their aggressive behaviors (RETTEW; PAWLOWSKI, 2016). Another factor that also makes the victims more vulnerable are apparent physical or behavioral traits that escape the social norm, such as body shape and constitution, low academic performance, or inconvenient behaviors (MAÏANO *et al.*, 2016a).

Systematic reviews of international literature show that children and adolescents with one or multiple disabilities are more likely to be victims in the school environment than other students (MAÏANO *et al.*, 2016a; ROSE; MONDA-AMAYA; ESPELAGE, 2011). More specifically, students with Autism Spectrum Disorder (ASD) are more vulnerable to bullying, both as victims and as bully-victims or bullies, due to their peculiar behavioral patterns and severe social skills shortfalls (HOOVER; KAUFMAN, 2018; HUMPHREY; HEBRON, 2015; HWANG *et al.*, 2018; MAÏANO *et al.*, 2016b; SCHROEDER *et al.*, 2014; SRECKOVIC; BRUNSTING; ABLE, 2014). In addition, students with ASD or Attention-Deficit/Hyperactivity Disorder (ADHD) are probably more victimized than students with other types of disorders or disabilities (HUMPHREY; HEBRON, 2015; SRECKOVIC *et al.*, 2014).

ASD is defined as a neurodevelopmental disorder, diagnosable through difficulties in communication and social interaction, as well as by restricted, repetitive and stereotyped behaviors, which are caused by a combination of genetic and environmental factors (DEMETRIOU *et al.*, 2018; WANG; KERY; XIONG, 2018). Based on epidemiological studies carried out over the last 50 years, the World Health Organization (WHO) points out that the incidence of ASD seems to be increasing globally. The organization also states that one in 160 children in the world has ASD and that individuals with this disorder are often subject to stigmatization, discrimination, and violations of rights (OPAS; OMS, 2017). In Brazil, estimatives say that there are more than two million people with ASD, with 120 to 200,000 individuals under five and 400 to 600,000 under 20 (IBGE, 2010).

A systematic review (HOOVER; KAUFMAN, 2018) found that children with ASD are three to four times more likely to feel intimidated by peers than colleagues without

the disorder. Furthermore, such feelings have negative impacts on the mental health of these individuals, who are under a higher risk of suicide when assaults reoccur. According to a meta-analysis performed by Schroeder *et al.* (2014), students with ASD suffer more bullying in regular schools than in special schools, and these individuals tend to be marginalized and excluded among their peers. Therefore, the practice of bullying in regular schools is inconsistent with the proposal of inclusion of individuals with disorders or disabilities, because these children and teenagers have their rights violated, are socially isolated and are unable to actively participate in daily learning.

The National Education Guidelines and Framework Law (Lei de Diretrizes e Bases da Educação, Brazil, 2018) defines special education as the form of education offered preferably in the regular school network, for disabled learners, children with developmental disorders and intellectual giftedness. Therefore, regular education institutions must ensure the quality and effectiveness of access for these individuals in the school.

Kassar and Rebelo (2018) point out that this concept of special education, from the perspective of inclusivity, has strengthened between 1974 and 2014 in Brazil. This is especially noticeable thanks to the increase in enrollment of special-needs children in regular schools, along with the decline of special classrooms and schools, mainly from the implementation of the National Policy on Special Education in the Perspective of Inclusive Education (Política Nacional de Educação Especial na Perspectiva da Educação Inclusiva, PNEEPEI) in 2008. It is worth mentioning that the PNEEPEI has been significantly advantageous in the implementation of the rights of people with disabilities. Given this importance, an increase in investments for their implementation throughout the country (GIROTO; POKER; VITTA, 2018) is justified, especially as a resistance in the face of the current political conjuncture of retrogression regarding inclusive public policies (PAGNI, 2019; KASSAR; REBELO; DE OLIVEIRA, 2019).

Specifically, the National Policy for the Protection of the Rights of Persons with Autism Spectrum Disorder (Política Nacional de Proteção dos Direitos da Pessoa com Transtorno do Espectro Autista), under Law 12.764/2012, endorses that individuals in the spectrum be included in regular classrooms. As a result of this law, the registration of children with ASD in the public network grew by 37.27% from 2017 to 2018 (INEP, 2018). Positive results have been found with the inclusion of these children, such as new pedagogical practices that are more specific to the needs and interests of each student, including those without disabilities (MELO; SANTIAGO, 2018).

Even with this law, the effective inclusion of children and adolescents with ASD in the regular school environment is still a challenge for Brazilian education, because only being present in the classroom does not ensure the learning and social inclusion of these individuals. It is necessary to adapt the contents, properly train teachers, combat bullying and prepare differentiated assessments (AGRIPINO-RAMOS; LEMOS; SALOMÃO, 2019; BAPTISTA, 2019).

According to a systematic review of national and international literature on this topic (CABRAL; MARIN, 2017 at the earliest), the main challenges for the inclusion of students with ASD are difficulties in communication, the lack of knowledge of the characteristics of an individual with an ASD by their teachers, and the lack of teaching strategies which

have an impact on the learning process. In addition to this, there are few professionals in Specialized Educational Assistance (Atendimento Educacional Especializado, AEE) and classrooms with multi-purpose resources, as well as the disconnect between the teacher and the resources (PASIAN, MENDES; CIA, 2017; SANTOS *et al.*, 2017). Therefore, it is essential that there be a greater concern with teacher training, with the construction of specific tools that facilitate the learning and communication process of students with ASD and with the effective implementation of PNEEPEI (BRASIL, 2008).

Although there are several international studies that have included several ASD children and teenagers (ADAMS *et al.*, 2016; HEBRON; HUMPHREY; OLDFIELD, 2015; HWANG *et al.*, 2018; UNG *et al.*, 2016), few Brazilian studies focus on their involvement in bullying in Brazil, including surveys with parents, those diagnosed with ASD, their peers, and teachers. Thus, the following questions arise: are Brazilian students with ASD from regular schools experiencing bullying, according to themselves, their parents and physical education (PE) teachers? If so, how does this interpersonal involvement occur and what are the perceived consequences?

This study aims to identify the involvement of ASD-diagnosed students in bullying, according to themselves, their parents and their PE teachers.

Method

This analytical cross-sectional study was approved by the Research Ethics Committee of the State University of Ceará (UECE), under opinion 1.691.480/2016. A cross-sectional study is a type of research used to establish information about a phenomenon, such as socio-economic or socio-demographic data, from a sample extracted at a given time and from a selected population (LOPES, 2017). Analytical studies evaluate the combinations between variables to clarify the determinants of a certain problem (HULLEY *et al.*, 2015).

Students aged between 10 and 15 years and diagnosed with ASD participated in this study. All students attended a specialized institution for clinical and psycho-pedagogical support and were simultaneously enrolled in regular schools. This institution, located in Fortaleza, Ceará, is a well-known center for the care of individuals diagnosed with ASD and helps about 400 students of all ages from public and private schools offering activities such as early intervention, AEE, workshops and therapeutic encounters.

After a survey at the institution, we selected 66 students that fit the profile of this study. However, only 19 students had enough communicative skills to answer the questionnaire. Of these, 14 were from public schools and five from private schools, 18 were male and one was female. Of the parents/guardians of the 66 students, 63 accepted to participate in this study; 61 were female and 2 were male.

Physical education teachers who fit the profile of the study were also selected according to the 66 students with ASD from the specialized institution. Of these teachers, four taught multiple students with ASD – who also participated in the study –, two were on sick leave and six were PE teachers, but they did not have training in special education. Thus, 51 PE teachers participated, who answered questionnaires for 56 students with ASD; 40 were from regular public schools and 10 from private schools, all in the state of Ceará. It is worth mentioning that one teacher taught at more than one school, which explains why

the number of schools is smaller than the number of teachers. For this study, we specifically selected PE teachers because PE classes often include games and physical workouts, where bullying is more likely to occur (O'CONNOR; GRABER, 2014; HWANG *et al.*, 2018).

Data was collected through structured interviews. All participants older than 18 willingly signed an informed consent form, while minors signed an assent form. The interviews with teachers and parents or guardians were conducted by the lead researcher of this study and by two research assistants with a degree in Pedagogy. The interviewers read item by item with the participants to clarify doubts and took note of the answers. Students with ASD were interviewed by the professionals of the specialized institution because they met with these students weekly. All the interviews followed scripts that were prepared by the first two authors of this article.

In the case of students with ASD, we employed a structured interview script in order to obtain socio-demographic data. Then, the student was asked to say what bullying is. In some cases, bullying was explained to the student. The student was asked if they had been bullied in the last six months, and if yes, they were asked to inform it. Finally, the interviewer asked whether the student had bullied someone.

Parents and guardians of children with ASD were interviewed with a script formed of questions about socio-demographic data and six specific questions about bullying. Of these six questions, two were open-ended and referred to the definition of bullying and the measures adopted by parents when they suspected that their child was involved in bullying. The other questions were closed-ended and dealt with involvement in bullying over the last six months: whether the child was a victim, bully or bully-victim; what were the consequences and reactions to finding out that their children are involved in bullying.

Finally, PE teachers were asked about socio-demographic data and their script contained six other questions regarding the bullying. From these six questions, the first was about the teacher's knowledge of bullying. The three other questions required the teacher to relate the names of students in the classroom, which classes they teach, and of which class the child with ASD involved in bullying is part of. Thus, the teacher did not know at the beginning of the interview that the study referred to specifically investigating the relationship between bullying and students with ASD. The fifth question dealt with the characteristics of the student with ASD that made them more vulnerable to bullying. The teacher would only answer that question if he mentioned a student had that disorder. Otherwise, he replied to the item: "You did not mention students with ASD. In your opinion, what is the interpersonal relationship of these students with their peers?"

After data collection, we used the IBM 2.0 Statistical Package for Social Science (SPSS) software to table the answers of the closed-ended questions. The answers were analyzed descriptively and the variables "knowledge about bullying" and "type of involvement of students with ASD" were compared, according to the interviewee, using the Chi-square test.

Results

Most guardians were women (95.2%), married (55.6%) and homemaker (60.3%), and reported that having a child with ASD inhibited their ability to go to work (61.9%). Their

median age was 38.8 years (SD=7.93). 38.1% of parents/guardians had graduated secondary school, 17.5% did not graduate primary school, and 12.7% were college graduates.

Of the 51 teachers, the mean age was 35.11 years (SD = 7.06) and the majority was male (56.9%). Regarding education, 21 (41.2%) had a postgraduate degree, 15 did not complete postgraduate education (29.4%), 13 (25.5%) graduated from college and two (3.9%) did not graduate from college. Most teachers had work experience in the school and 34 (66.7%) had graduated more than five years ago. It should be noted that only three (3.9%) teachers declared that they had taken courses in the area of special education, but none addressed teaching children with ASD.

Of the 19 students with ASD who participated in the study, 18 were male. As for age, five students were 10 years old, four 12 years old, three 13 years old, three 14 years old and one student was 15 years old.

According to Table 1, parents/guardians, teachers, and students with ASD, in general, did not expressly mention the most relevant aspects of the definition of bullying (repetition, power imbalance, and intentionality). Regarding repetition and power imbalance, there was a higher percentage of teachers who mentioned them in relation to the percentage of parents and students, these differences being statistically significant.

Table 1 - Definition of *bullying* by parents/guardians, teachers, and students with ASD. Fortaleza, Ceará, Brazil, 2016

	Informant (%)			X2 (g. l)	p
	Guardian	Teacher	Student		
Mentioned	n = 63	n = 51	n = 19		
Repetition:					
Yes	3.4 (2)	25.5 (13)	0	15.73 (2)	< 0.001
No	96.6 (57)	74.5 (38)	100 (19)		
Type of aggression					
Physical	8.5 (5)	49.0 (25)	26.3 (5)	41.13 (2)	< 0.001
Psychological	71.2 (42)	43.1 (22)	5.3 (1)		
Combined	0	7.8 (4)	68.4 (13)		
Prejudice					
Yes	57.6 (34)	5.9 (3)	5.3 (1)	41.52 (2)	< 0.001
No	42.4 (25)	94.1 (48)	94.7 (18)		
Power imbalance					
Yes	3.4 (2)	17.6 (9)	0	9.20 (2)	<0.0001
No	96.6 (57)	82.4 (42)	100 (19)		

Source: survey data.

As for types of bullying, more students reported both physical and psychological bullying than parents and teachers. Teachers mentioned mostly physical aggression while

parents/guardians focused on psychological aggression. Guardians reported that psychological assaults were more recurrent, mentioning curse words such as: “crazy”, “retarded”, “abnormal” and “sick”. Guardians/parents have also frequently used the word “prejudice” to define bullying, representing more than a 50% difference from teachers and students.

30 parents/guardians reported not knowing whether the child was involved in bullying (47.6%). According to Table 2, the percentage of students with ASD who said they were involved in bullying is higher than the percentage of parents and teachers who reported the involvement of these students in bullying. The percentage of parents who declared having their child involved in bullying was higher than that of teachers who claimed to have their students with ASD involved.

The type of involvement mentioned by students with ASD and their teachers was as a victim, but there were parents who cited their involvement as a bully-victim and as a bully. Four teachers, three from private schools and one from a public school, reported that there was no bullying at the school in which they worked, regardless of whether it was with a student with ASD.

Table 2 - Percentage of students with ASD involved in *bullying* and type of involvement according to guardians/parents, teachers, and students. Fortaleza, Ceará, Brazil. 2016

Involvement of students with ASD in bullying situations over the last six months (%)	Guardian n = 33	Teacher n = 51	Student n = 19	X ² (g. l)	p
Type of experience					
Bully	3 (1)	0	0	37.326 (6)	< 0.001
Victim	75.8 (25)	47.1 (24)	63.2 (12)		
Bully-victim	21.2 (7)	0	0		
No involvement	0	52.9 (27)	29.4 (5)		

Source: survey data.

These teachers who mentioned that there was no form of bullying in their schools justified the answer as such: “this bullying is all invention, it’s all just roughhousing”, “here at the school we are strongly against this type of violence, and we do not allow these types of behavior, especially with disabled children”, “there’s too much weight to these bullying things, I don’t see them doing this, no, what I see are boys being boys and then it’s all settled, nothing much”, and “boy, I honestly can’t understand why people make such a big deal out of it, that’s a kid’s thing”.

Of the 12 students who reported being bullied, seven were also mentioned as being victims by their guardians and eight by their teachers, and two were neither mentioned by their guardians nor their teachers. Of the 24 students who were mentioned by teachers as victims, nine were unable to answer the questionnaire, nine also claimed to be victims and six were mentioned by their parents. Of the 25 students mentioned by their parents as

victims, 16 were unable to answer the questionnaire, five also claimed to be victims and four were also mentioned by the teachers.

Guardians, for the most part, acknowledged that bullying can lead to significant consequences, which are explained in Table 3. Of the guardians who mentioned that their children were involved in bullying, most pointed out the “unwillingness to go to school” as the main consequence, especially when the child was a victim. For guardians with children involved as a bully-victim, “aggressiveness” was the most cited consequence. More than 50% of parents/guardians who mentioned children with ASD as victims indicated that children are socially isolated; however, this was not mentioned by the guardians who reported the child as a bully-victim.

Table 3 - Consequences to children with ASD who are victims and bully-victims, according to their guardians. Fortaleza, Ceará, Brazil. 2016

Main consequences (%)	Parents/guardians who reported their children as victims n = 25	Parents/guardians who reported their children as bully-victims n = 7
Lack of willingness to go to school	56 (14)	57.1 (4)
Social isolation at school	52 (13)	0
Aggressiveness	40 (10)	71.4 (5)
Sadness	44 (11)	42.9 (3)
Insomnia	20 (5)	28.6 (2)
Headache	8 (2)	14.3 (1)
Hurts/Injuries	8 (2)	0
Nocturnal enuresis (bedwetting)	4 (1)	14.3 (1)
Decrease in academic performance	4 (1)	28.6 (2)
Other consequences	60 (15)	57.1 (4)

Source: survey data.

According to table 3, the item “other consequences” was widely cited in both types of bullying. It is worth mentioning some words, said by the guardians, that can characterize this item, such as: anger (3), crying (10), irritation (1) and shame (1). In addition, one guardian identified loss of appetite among the consequences and seven guardians reported that the children cannot realize they are experiencing bullying and therefore there are no negative consequences.

PE teachers mentioned some particularities of students with ASD that predispose them to experience bullying. According to Table 6, most teachers reported that the fact that students with ASD have “few friends” and “isolate” themselves during group activities facilitates bullying situations. The characteristics “lack of empathy” and “lack of interest in PE classes” were also cited by the teachers, but less frequently.

Table 4 - Particularities that can expose students with ASD to bullying as victims, according to Physical Education teachers. Fortaleza, Ceará, Brazil. 2016

Particularities:	Teachers n = 24
Few friends	43.1 (22)
Social isolation	35.5 (18)
Lack of empathy	29.1 (15)
Lack of interest in Physical Education classes	29.4 (15)
Aggressiveness	21.6 (11)
Other particularities	21.6 (11)

Source: survey data.

We also verified particularities that do not fit the items presented in the questionnaire, which are: “not talking” (cited by two teachers), “making strange noises, such as buzzing and hysterical screams” (one teacher), “attachment to a certain subject (plastic bottles)” (one teacher) and “psychomotor agitation” (one teacher). All of these particularities were cited by teachers as factors that possibly facilitate situations in which the students are bullied.

Discussion

Regarding the profile of the guardians, we identified that most of them were women, married, homemakers, and had declared that they were not working because of exclusive dedication to the care of their children. This profile is similar to the one verified in a metasynthesis by Ooi *et al.* (2016), which describes that several mothers of children with ASD had to quit their jobs or renounce career opportunities to care for their children and accompany them in treatment.

The majority of the PE teachers participating in the survey were male, with an average age of 35, and have completed or are in the process of completing their postgraduate studies. We highlight that few teachers had specific qualifications in the field of Special and Inclusive Education. Corroborating these findings, the Brazilian Institute of Geography and Statistics (IBGE, 2010) reported that the majority of PE teachers in Brazil are young men. Research indicates the need for professionals of PE to have specific qualifications in the area of Special Education more frequently (FIORINI; MANZINI, 2014).

Regarding the students with ASD, they were predominantly male children, aged between ten and twelve years old. It is worth mentioning that ASD affects males more frequently (LEHNHARD *et al.*, 2011). The participants of this study resemble those of

Cappadocia; Weiss; Pepler (2012) and Rieffe *et al.* (2012) in age and gender. These studies also investigated the relationship between bullying and ASD. It is important to mention that this age group is very susceptible to bullying experiences (CURRIE *et al.*, 2012).

We would like to point out that most students with ASD invited to this study had no skills to understand the interview questions. Because of this, many of them were excluded from the sample, which is a significant limitation of this study. It is challenging to research with individuals with ASD and to give these subjects a voice, as Hebron; Humphrey; Oldfield (2015) also observed. Thus, researchers must develop instruments more appropriate to the characteristics of the disorder in studies where individuals with ASD are informants. For this purpose, multiple strategies can be employed to provide an understanding of bullying, such as the use of videos by Rex; Charlop; Specto (2018) and of *cartoons* by Altomare *et al.* (2017).

When the participants were questioned about their understanding of bullying, we noticed that guardians, teachers and students know little about the scientific definition of this phenomenon, which is based on the following characteristics: intentionality, repetitiveness and power imbalance (OLWEUS, 2013). This restricted knowledge of the informants is contrary to the actual context of frequent discussion concerning bullying, in academia, media and in the school environment. Another complication is that if individuals are unaware of the basic characteristics of bullying, they will hardly identify and confront this phenomenon in practice (WILLIAMS; STELKO-PEREIRA, 2013).

However, we emphasize that PE teachers have demonstrated a greater understanding of bullying than parents and students. This may be related to teachers having more access to discussions about bullying, either in their academic career or in formative activities in the schools where they work. A review study by Schroeder *et al.* (2014) affirms that interventions with the participation of teachers are effective in reducing bullying. However, these interventions must exceed the discussion on defining the phenomenon and its main characteristics. Thus, they should include strategies for supervising the courtyard and other recreational spaces, mediating conflicts, detecting and addressing bullying, and planning classes that promote healthy interpersonal relationships.

A study by Flória (2015) also identifies that parents and guardians have difficulties in defining bullying. The parents and guardians who participated in this study described bullying as a prejudiced and discriminatory practice, indicating that it is characterized by all types of violence, including institutional violence, with negative consequences for the victims. This form of explanation may be associated with the context of the fight for the rights of people with ASD.

Regarding the perception of the students with ASD about the definition of bullying, we noticed that they tried to answer the questionnaire by exemplifying with some situation they had experienced in school, that is, in a more concrete than abstract way, which is peculiar to ASD. Most of them associated the definition of bullying with direct demonstrations, citing no features such as repetition and power imbalances, which resembled international research (CAPPADOCIA; WEISS; PEPLER, 2012; CARTER, 2009; KOWALSKI, FEDINA, 2011).

Concerning bullying types, there was a higher percentage of students who mentioned both physical and psychological, compared to the percentage of parents and teachers. This suggests that students have a broader perception of bullying practices because they may have been directly involved, whether as victims, bullies, bully-victims or witnesses. Hwang *et al.* (2017) argue that self-reporting to identify bullying has the advantage of directly evaluating the experiences, feelings and consequences of those involved. However, confidence in self-reporting can be affected by differences in the interpretation of bullying, the ability to accurately reconstruct events, and the willingness to report painful experiences. Thus, the authors also indicate that children who have difficulties interpreting social situations or interpret them as ambiguous (due to their behavioral characteristics or the situation itself) are more likely to define bullying events that do not correspond to the definition of the phenomenon. Thus, self-reporting is an important source of information, but it should be carefully analyzed.

We observed that the teachers mentioned physical aggression more frequently, while parents and guardians cited more psychological aggression. Physical aggression is an easily identifiable form of bullying because the damage caused, both physical and material, is more visible and undeniable (RETTEW; PAWLOWSKI, 2016), which may explain the reason why it was the most cited category by the teachers. Moreover, the identification of physical bullying is probably more common in the context of PE classes, because they deal with body practices and competitive games. In most cases, students attend these classes with clothing that allows them to observe if there are signs of violence in the upper and lower limbs (O'CONNOR; GRABER, 2014). Psychological aggression, on the other hand, is a less visible modality, which corresponds to humiliating, threatening and/or offending the dignity of the subjects (RETTEW; PAWLOWSKI, 2016). In this sense, this sort of aggression can often be ignored by adults.

We noticed that the forms of bullying most frequently identified by the informants were those that corresponded to direct bullying. Since it is more subtle and involves no direct relationship between bullies and victims, indirect bullying is often not identified by the school community, which makes it difficult to stop the violence. We emphasize that indirect bullying can be very frequent among children and adolescents with ASD. This is because the difficulties with communication and social interaction make them more vulnerable to relational bullying, which is mainly characterized by exclusion and isolation of an individual from the group (SCHROEDER *et al.*, 2014). No participants cited verbal aggression, which is another manifestation of direct bullying that is reported as the most frequent violence suffered by people with ASD (MAÍANO *et al.*, 2016b; SAGGERS *et al.*, 2017; SCHROEDER *et al.*, 2014).

We stress that most parents and guardians reported that they did not know whether their children were experiencing bullying. This data is worrisome considering the fact that guardians are essential to identify bullying, as well as to intervene. In this regard, Schroeder *et al.* (2014) and Shetgiri *et al.* (2012) indicate that teaching parents to identify and deal with bullying is fundamental to address this phenomenon, because learning these skills is related to decreases in the rates of aggression experienced by students in schools. Parents are also fundamental for the inclusion of children with ASD in school,

through their effective participation in daily school life, establishment of partnerships and sharing experiences with teachers (CABRAL; MARIN, 2017).

The percentage of students who said they experienced bullying was higher than the percentage of parents and teachers who reported that their children and students experienced it. This may be related to the fact that students have a broader perception of the phenomenon of bullying because they are directly involved (HWANG *et al.*, 2017). We also noticed that the percentage of parents who reported that their children experienced bullying was higher than the percentage of teachers who reported the same thing regarding their students with ASD. This was also verified in the study by Campbell *et al.* (2017) and the review by Schroeder *et al.* (2014), indicating that parents may be closer or more aware of their children's daily lives than teachers.

Regarding the type of involvement, victim was the most frequent category according to the three categories of informants. However, students and teachers only mentioned victim, while parents also mentioned bully and bully-victim. These results are consistent with the literature on bullying and ASD, which confirms that individuals with ASD experience bullying as victims, bullies and bully-victims (MAÍANO *et al.*, 2016b; HWANG *et al.*, 2018; SCHROEDER *et al.*, 2014).

However, Hwang *et al.* (2018) argue that children with ASD are much less susceptible to experiencing bullying as bullies and/or bully-victims. Furthermore, the authors question the classification of a child with ASD as a bully, since many typical behaviors of the disorder can be confused with intentional aggressions. Another topic emphasized in the study is that of controlled psychopathological comorbidities, such as ADHD (which increases the chances of individuals with ASD being bullies); the chance for them to be involved as bullies or bully-victims disappears. Thus, the researchers conclude that focusing on children with ASD as bullies can be a distraction from many other risk factors of the problem, which may be addressed.

The four teachers who said there was no bullying in their schools reproduced discourses that naturalized peer bullying practices, defining it as "joke" or "children's thing". Even though bullying is widely discussed today, this kind of discourse is still very present in common sense. Besides spreading misinformation about the phenomenon, this discourse naturalizing the problem also contributes, even if involuntarily, to the development and consolidation of bullying in the school environment (WILLIAMS; STELKO-PEREIRA, 2013).

We highlight that of the 12 students who reported being victims, seven and eight students were also mentioned as victims by their guardians and by their teachers, respectively. Thus there was good concordance among informants regarding these students. This shows that it is worth considering information from students with ASD to identify the occurrence of bullying (CAMPBELL *et al.*, 2017). Schroeder *et al.* (2014) identified that individuals with ASD, considered eligible for the studies, had a performance comparable to that of the general population, showing few mistakes regarding the identification of bullying.

Regarding the consequences of bullying, guardians reported "lack of willingness to go to school" more oftenly when their children were victims. Similarly, Adams *et al.* (2016) demonstrated that bullying damages school performance and experience of students with

ASD, because they feel insecure at school and connect this environment with negative feelings caused by bullying.

Aggressiveness was the most frequently cited consequence by the guardians of children involved as bully-victims. Schoelder *et al.* (2014) indicate that children with ASD involved as bully-victims have higher rates of emotional regulation difficulties. Thus, when provoked, they can respond in a clearly aggressive manner, which would cause greater victimization. Pozzo; Roché; Siverstein (2018) stress that it is important to clarify that ASD causes no violence or aggression. Therefore, violent behavior in individuals with ASD is caused by other variables, including parental control, family environment, bullying, or psychiatric comorbidity.

Sadness was another consequence of bullying widely mentioned by guardians of victims and bully-victims. Corroborating these findings, Ung *et al.* (2016) and Schroeder *et al.* (2014) suggest that victimization of children with ASD has a significant correlation with: loneliness, sadness, anxiety, depressive symptoms, hyperactivity, high emotional sensitivity and impaired social skills. The consequence “social isolation” was also mentioned by the guardians of victims. It is worth mentioning that social isolation is a particularity of children with ASD, but it can be aggravated by bullying. The guardians of children involved in bullying as bully-victims did not cite “social isolation” as a consequence.

PE teachers also mentioned some particularities of students with ASD that could predispose them to experience bullying, which were “having few friends” and “social isolation”. These situations are corroborated by studies indicating risk factors for involvement in bullying by children with ASD: characteristics of ASD, social vulnerability, social skills deficit, little social support, and no friendships (SCHROEDER *et al.*, 2014; SRECKOVIC *et al.*, 2014). In this regard, teachers also cited “lack of empathy” and “lack of interest in physical education classes”. O’Connor and Graber (2014) argue that bullying practices are very common in PE classes and demonstrating lack of interest in these classes may be associated with fear of being stigmatized or ridiculed in front of a group.

We emphasize that the literature on special education has demonstrated the important role of teachers as mediators of social interactions of students with ASD in the school environment, because they can facilitate the relationships of these individuals with their peers (AGRIPINO-RAMOS; LEMOS; SALOMÃO, 2019). However, if educators neglect this important role in school inclusion and justify it on intrinsic characteristics of the ASD, they can be contributing to the exclusion of students with this disorder from learning spaces.

Concluding Remarks

This study aimed to identify the involvement of students diagnosed with ASD in bullying, according to themselves, their parents and their PE teachers. According to the results, it is evident that students with ASD are prone to involvement in bullying, especially as victims, which can affect their health and quality of life, as well as their school inclusion. Moreover, this study confirms that there is still a lack of knowledge about bullying by individuals playing central roles in schools, which can difficult the identification of the problem and possible interventions.

Data from this study indicate that there is an urgent need for training and education on bullying for teachers, family members, and students, especially for students with ASD, due to their more vulnerable condition. Such training should include the definition of bullying and how to address it as a complex interpersonal problem that is far beyond blaming bullies. It must be understood that there are individual, familiar, institutional and social aspects that permit and prompt situations in which someone suffers frequent and intentional aggression from his or her peers. More specifically, it must be understood that bullying people with ASD is contrary to the Inclusive Education perspective. Furthermore, it violates the terms of PNEEPEI, Law 12.764 and, more broadly, Human Rights. Thus, bullying people with ASD should also be considered as a symptom of an unequal, exclusionary and normalizing society.

Despite its relevance, this study has some limitations. We applied only structured interviews, thus we conducted no more detailed interviews to understand the nuances of the involvement of the students with ASD in bullying, nor did we observe the daily school life of these individuals. In addition, we used no multiple resources that could facilitate the understanding of the students with ASD, such as drawings and videos. The sample was conveniently composed, even if it included a considerable number of participants from the specialized institution, the data may not be generalized to other contexts, and further studies may be necessary.

Although there are limitations, this study is one of the few on the subject in Brazil. Additionally, the conclusions may support the development of educational programs in which the definition of bullying is accurate, the psychological modality of the problem is also highlighted, and the perceptions of parents, teachers and students are better articulated. In addition to that, this study could support programs that emphasize the consequences of bullying and the need to promote pleasant, beneficial, and happy relationships among students, including helping to overcome particularities of the ASD.

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