Information Sciences Letters
An International Journal

http://dx.doi.org/10.18576/isl/121005

# Types of Bullying and Its Causes for Students with Autism Spectrum Disorder in Full-Inclusion Programs: Teachers 'And Parents' Opinion

Abdullah Alatawi

Department of Special Education, College of Education & Arts, University of Tabuk, Tabuk, Kingdom of Saudi Arabia

Received: 14 Aug. 2023, Revised: 27 Aug. 2023, Accepted: 28 Sep. 2023.

Published online: 1 Oct. 2023.

Abstract: Students with developmental disabilities are exposed to high rates of bullying compared to typical people and individuals with autism are exposed to even higher rates [7]. This descriptive qualitative study aimed to investigate the types and causes of bullying experienced by students with autism in full-inclusive programs in three cities in Saudi Arabia (Tabuk, Aljof, and Arar). Semi-structured interviews were conducted with 12 parents and educators who met the inclusion criteria. The interviews were analyzed using the "Dedoose" program, leading to the identification of seven themes. The participants reported instances of verbal bullying, including offensive language and threats. Physical bullying, such as hitting, stealing, and property damage, was also mentioned. Additionally, some children experienced sexual bullying through verbal, gestural, or electronic cues. Cyberbullying, including exclusion and the dissemination of videos and images, was found to affect children with autism. Social bullying, characterized by exclusion, isolation, and disgust, was also reported. This study found that bullying is related to disability and lack of awareness. It is important to note that the study focused on three cities in the northern region of Saudi Arabia, and future research may consider other regions to encompass demographic and cultural diversity. The study highlights the need for increased awareness among peers, parents, and teachers regarding bullying, with recommendations for preventive measures and support strategies.

Keywords: Autism, Bullying, Teachers, Schools.

#### 1 Introduction

#### 1.1. Autism

In 1990, the United States Federal Government identified autism as a special education category under the Individuals with Disabilities Education Act (IDEA) [11]. IDEA (2004) defined autism as follows:

Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences (34 CFR § 300.8 (c)(1)).

The DSM-IV-TR (2000) included five disorder categories under the PDD heading: autism, AS, CDD, RS, and PDD-NOS. However, DSM-5 includes all of these categories except RS under the umbrella of ASD. The categories are designated based on deficits in social communication and interaction as well as restricted repetitive behaviors, interests, and activities. In addition, individuals are identified according to their level of functioning (e.g., high-functioning ASD) [2] [26] [46].

# 1.2. What is bullying?

It is clear from the above definition that individuals with autism face evident difficulties in social skills [3] [38] [43]. In other words, they have deficiencies in social intelligence, which has been defined as the ability to "understand interpersonal situations and transactions and to use that understanding to assist one in achieving desired interpersonal outcomes" (Greenspan & Love, 1997, p. 311). Social intelligence is related to the theory of mind, which refers to an understanding that other people's beliefs can differ from one's own as well as an understanding of the mental states of oneself and others [38]. Many researchers have pointed out that deficiencies in social intelligence reinforce negative social outcomes and increase the likelihood that individuals with autism will be bullied or harmed [15] [31] [38].



The definition of bullying varies from country to country and from culture to culture [30]. In general, bullying refers to any negative or aggressive act directed at a person or group of people [29]. Olweus (1993, as cited in Morton et al., 2019, p. 1) provided the following popular definition: "A person is bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons, and he or she has difficulty defending himself or herself."

More recently, Smith et al. (2012, as cited in Morton et al., 2019, p. 1) summarized the definitions of bullying by developing the following list of criteria:

- It is an aggressive act.
- It is perpetrated via any form of aggression (e.g., physical, verbal, cyber, direct, or indirect).
- There is an imbalance of power between the perpetrator and the target (e.g., the victim finds it difficult to defend him/herself).
- It has some element of repetition (these things can happen frequently).

# 1.3. Types of bullying

Many studies have found that students with developmental disabilities are exposed to high rates of bullying compared to typical people and that individuals with autism are exposed to even higher rates. For example, the National Longitudinal Transition Study collected data on 900 parents of individuals with autism in the United States, and 43% of them indicated that their children had experienced bullying [40]. In Cappadocia et al.'s [7] study of parents of youth with ASD, 54% reported that their children experienced bullying that persisted for more than one year. In a more recent study, 36% of 101 mothers of youth with ASD indicated that their children experienced bullying more than twice a week [42]. Meanwhile, Kerns et al. [18] found a relationship between anxiety symptoms and bullying.

Previous literature on this subject referred to many forms of bullying that students with autism are exposed to in the integration stage. In a study of mothers of children with ASD aged 4–17 years old, 75% of the children were exposed to emotional bullying, while 73% were exposed to physical bullying by peers and siblings at least once in the past year [21]. Their results were confirmed by Wolke and Skew [45]. Although the previous study referred to the types of bullying in general, in structured interviews with 30 students with ASD, Wainscot et al. [41] found that 72% had bullies call them names (50%), shout at them (6%), and/or physically abuse them (16.6%). Cappadocia et al. [7] and Maïano et al. [24] reported that verbal bullying and interpersonal bullying occur more frequently than other types of bullying. In Cappadocia et al.'s [7] study, 28%, 28%, and 8% of the participants reported exposure to verbal bullying, social bullying, and physical bullying, respectively.

Individuals with Autism Spectrum Disorder (ASD) face an elevated risk of cyberbullying due to their engagement in digital platforms without fully comprehending social cues and context, as revealed by Maïano et al. [24]. Pham and Adesman [24] describe cyberbullying as involving acts such as sending threatening messages, sharing embarrassing information online, and assuming the victim's identity to disrupt their social relationships.

A systematic review by Beckman et al. [4] examined the prevalence of cyberbullying among students with neurodevelopmental disorders (ND) in special education schools. The review included eight studies, which reported varying rates of cyber-victimization (ranging from 0% to 41%), cyber-perpetration (ranging from 0% to 16.7%), and bully-victim experiences (6.7%) among ND students. Some studies indicated that individuals with ND, including those with ASD, may be more involved in cyberbullying compared to their typically developing peers. Furthermore, the review found slightly higher rates of cyberbullying in segregated school settings, particularly among female students.

Individuals diagnosed with Autism Spectrum Disorder (ASD) are known to be particularly susceptible to bullying, including instances of sexuality bullying. This susceptibility can be attributed to their difficulties with social communication, understanding social cues, and maintaining appropriate social interactions [6]. Several studies have addressed the issue of sexual bullying experienced by children with ASD, both within their homes and schools [12] [23] [25].

For instance, Lu et al. [23] studied bullying victimization among seventh-grade students with ASD in Taiwan, using data from the Special Needs Education Longitudinal Study database. They found that having a larger number of friends increased the likelihood of experiencing extortion and sexual harassment. Part-time students were more likely to report incidents of sexual harassment. In another study by Dewinter et al. [12] compared sexual behaviors, attitudes, and interests of 50 ASD boys with a control group, finding limited coercion, highlighting vulnerability to bullying and exploitation. Kloosterman et al. [19] examined bullying rates among adolescents with ASD, special needs, and typically developing peers. They identified sexual jokes, comments, and gestures as prominent forms of bullying and noted that



being perceived as different contributed to increased bullying occurrences.

#### 1.4. Causes

Several studies have confirmed that individuals with autism are exposed to bullying more often than their typical peers [7] [23]. For example, Park et al. [33] found ASD students with social interaction deficits, communication issues, and externalizing symptoms in integrated inclusive settings. Prevalence and effect sizes vary based on culture, age, school settings, and methodological quality.

In a study conducted by Sterzing et al. [40] using data from the National Longitudinal Transition, it was discovered that students with disabilities, including those diagnosed with Autism Spectrum Disorder (ASD), who possessed some conversational ability were more likely to experience victimization compared to those without conversational ability. Additionally, the study revealed that students who spent more time in general education settings were significantly more prone to peer victimization than those in special education settings.

Researchers have consistently demonstrated that individuals with Autism Spectrum Disorder (ASD) are at an elevated risk of being bullied as a result of their disability. Specifically, Twyman et al. [33] observed that individuals with ASD may encounter challenges in developing assertiveness and self-advocacy skills, which may impede their ability to defend themselves against bullies or seek assistance from others. Additionally, co-occurring disabilities or mental health conditions put individuals with autism at even greater risk for bullying, as highlighted by Eldevik et al. [13]. Moreover, it is not only peers who contribute to the bullying of individuals with autism.

Teachers may fail to intervene or protect these individuals, as reported by Honey et al. [16]. Social rejection and exclusion may also contribute to the increased risk of bullying in individuals with autism as found by Stäubli et al. [36]. Furthermore, according to the review conducted by Cook et al. in [10], individuals who were victims of bullying were more likely to have poor social skills and be less popular or more excluded from their peer group. As we found that there is a link between bullying and child neglect. For example, McDonnell et al. [27] conducted a study comparing the prevalence and characteristics of maltreatment among four groups of children: ASD-only, ASD+ID, ID-only, and controls. The study found that children with ASD and ID were more vulnerable to all forms of abuse, while the ASD-only group was more likely to experience physical abuse. Maltreated children with ASD exhibited a higher likelihood of aggression, hyperactivity, and tantrums. These findings underscore the importance of recognizing and addressing the increased vulnerability of children with ASD and ID to maltreatment.

In existing research, there is a growing understanding of bullying experiences within the autism community. However, limited qualitative studies have delved into the viewpoints of parents and educators concerning the causes and forms of bullying. Prior investigations have highlighted various bullying forms such as verbal, sexual, and electronic, typically attributed to disability-related factors and social interactions. Nevertheless, these studies lack specific insights into the early-age bullying encounters of children with autism. Although research has emphasized the susceptibility of individuals with ASD to various types of bullying, including sexual and cyberbullying, a comprehensive breakdown of the specific bullying types experienced by younger children with autism is notably absent from prior literature.

Best on the previous, this study aims to investigate the types of bullying experienced by students with autism in full-inclusive programs across three cities in Saudi Arabia (Tabuk, Aljof, and Arar), as well as the beliefs of teachers and parents regarding the reasons for such bullying. The study is guided by broad research questions were:

- 1. What types of bullying are faced by students with ASD in full inclusive programs in northern cities of Saudi Arabia (Tabuk, Aljof, and Arar)?
- 2. What do teachers and parents think makes students with ASD exposed to bullying?

#### 2 Methodologies

#### 2.1. Ethics

The research received ethical approval from the Human Research Ethics Committee at the University of Tabuk (UT-302-145-2023) before engaging participants. The participant information sheets clearly outlined participants' right to withdraw from the study at any point and decline to answer specific questions. To protect confidentiality, transcripts and notes underwent anonymization, replacing names with initials or codes and removing potentially identifying information.

## 2.2. Theoretical Approach

Qualitative descriptive study approach was implemented to collect and analyze data. In qualitative descriptive studies, researchers focus on exploring the nature of the phenomenon under research [20]. The purpose of the study is to explore



the types and reasons of bullying faced by students with ASD in full inclusive programs in three northern cities in Saudi Arabia: Tabuk, Aljof, and Arar.

## 2.3. Participant Recruitment

After obtaining approval from the Institutional Review Board (IRB) at the University of Tabuk, an invitation letter was emailed to the Ministry of Education in Tabuk, Aljof, and Arar. The letter provided details about the researcher, study objectives, voluntary participation, data protection, and contact information. Interested participants, including educators and parents, expressed their willingness to join the study through phone calls and emails. Fourteen participants met the eligibility criteria set for educators, which included being in-service teachers with a special education degree and experience teaching students with ASD. For parents, criteria included having a child with ASD in elementary school, aged 10 to 15, and residing in Tabuk, Aljof, or Arar. All eligible respondents meeting these criteria were included in the study.

# 2.4. Participants

Out of the 14 initial participants who expressed interest, 12 were chosen for the study after meeting all inclusion criteria. Two participants were excluded: one due to having only one year of teaching experience and the other because their child was non-verbal. The final participants consisted of six educators and six parents. The educators were evenly split between males and females, with two selected from each of the three cities: Tabuk, Aljof, and Arar. Among the parents, there were three females and three males. Most of the parents (5 out of 6) were educated. The children with autism in the study had an average age of 12.5 years and were all enrolled in fully inclusive programs.

Pseudonyms Gender Education level Years of Number of Type of City program Experience Students in class working in F Educator 1 Bachelor's degree 5 Tabuk Full inclusive programs F Educator 2 inclusive Tabuk Bachelor's degree 6 5 Full programs Educator 3 M Bachelor's degree 4 3 Full inclusive Aljof programs Educator 4 F Bachelor's degree 5 6 Full inclusive Aljof programs Educator 5 M Full Bachelor's degree 5 8 inclusive Arar programs Educator 6 M Bachelor's degree 5 inclusive Full Arar programs

Table 1: Teacher's characteristics

*Note.* Educator = Teachers of students with ASD.

Table 2: Parents' characteristics

Table 2. Farches Characteristics							
Pseudonyms	Gender of	Education	Age of Child	Number of family members	Birth Order	Type of program study in	City
•	Parent	level	Child	ramily members	Order	J	
Parent 1	M	Bachelor's	12	5	3	Full inclusive	Tabuk
		degree				programs	Tabuk
Parent 2	F	High School	13	6	2	Full inclusive	Tabuk
						programs	Tabuk
Parent 3	M	Uneducated	12	7	3	Full inclusive	Aljof
ratelit 3	1 <b>V1</b>	Uneducated	12	1	ر	programs	Aijoi
Parent 4	F	Bachelor's degree	11	2	1	Full inclusive	Aljof
						programs	
Parent 5	M	Master's	14	8	2	Full inclusive	A
		degree				programs	Arar
Parent 6	F	Bachelor's	12	6	3	Full inclusive	A
		degree 13	13			programs	Arar

*Note.* Parent = Father or Mother of students with ASD.

## 2.5. Interview Format

Semi-structured interviews were conducted using Skype Voice-over-Internet-Protocol (VoIP), chosen by participants

for their convenience. All interviews were digitally recorded to ensure accurate retention of responses. Interviews were scheduled sequentially based on participant preferences, spanning approximately two months with two interviews weekly. Participants were sent interview questions in advance for review and approval, aiming to alleviate concerns and enhance their confidence. Interviews averaged around 20 minutes. Each session began with obtaining written informed consent, followed by verbal and written recording of demographic details. Questions were posed progressively to foster engagement, and prompts were used for participants facing difficulty in responding.

## 2.6. Data Processing and Analysis

The researcher transcribed all 12 interviews verbatim and retained the original wording in a Word document. These transcriptions were cross-referenced against the participants' audio recordings to ensure accuracy. Post-interview, participants were provided with their transcriptions for possible edits or approval. Seven participants adjusted, with three omitting certain details. Identifying information was then anonymized in the transcriptions, replacing names with codes such as "teacher 1" and "parent 1". All transcripts were uploaded to the online qualitative analysis tool "Dedoose", where both "Coder 1" and "Coder 2", using the same account, examined the Arabic transcripts meticulously. They initiated initial coding by scrutinizing each response three times to establish salient excerpts. In cases of disagreement, a third coder was consulted to achieve consensus. The coding scheme was adjusted if required during this process. Themes emerged as coders identified recurring excerpts and developed agreed-upon codes, which were consistently observed across at least three participant responses to validate theme identification [35].

**Table 3:** Agreement and disagreement between coders

	Coder 1			Coder 2			Agreement
Focus Group	Number of fragments coded	Disagreement With coder 2	%	Number of fragments coded	Disagreement With coder 1	%	
Interview T1	50	5	10.00%	54	9	16.67%	45
Interview T2	55	6	10.91%	57	8	14.04%	49
Interview T3	35	6	17.14%	39	10	25.64%	29
Interview T4	40	2	5.00%	56	18	32.14%	38
Interview T5	55	4	7.27%	71	20	28.17%	51
Interview T6	45	9	20.00%	40	4	10.00%	36
Interview P1	25	6	24.00%	32	13	40.63%	19
Interview P2	40	8	20.00%	43	11	25.58%	32
Interview P3	39	9	23.08%	42	12	28.57%	30
Interview P4	35	0	0.00%	35	0	0.00%	35
Interview P5	65	5	7.69%	70	10	14.29%	60
Interview P6	33	5	15.15%	34	6	17.65%	28

*Note.* T = Teachers; P = Parents.

# 2.7. Steps Taken to Increase the Credibility of the Data

The researcher established a rapport with participants prior to interviews, potentially influencing the analysis and interpretation of research findings. To mitigate researcher bias, the author periodically re-evaluated participants' impressions. "Question order bias" was addressed during question design, where question sequence could impact subsequent responses. Randomization of interview questions was employed to alleviate this bias. "Answer bias" was also considered, with the researcher framing open-ended questions to enable participant responses without steering. To gauge reliability, the Miles and Huberman (1984, as cited in Campbell et al., 2013) method was used, calculating interrater agreement as a percentage. Interrater reliability averaged 86% (Table 3), with disagreements resolved through discussion.

# 3 Results

The interviews yielded five interconnected themes in response to the first research question, along with two themes addressing the second question (refer to Table 4). Participants concurred on the presence of five bullying types affecting



children aged 9-10 with ASD: verbal, physical, sexual, social, and cyberbullying. Furthermore, the nature of the disability and a lack of awareness emerged as underlying causes of bullying in the cities Tabuk, Aljof, and Arar. These findings will now be discussed sequentially.

**Table 4:** Results of Thematic Analysis

Questions	Themes	Subthemes	
	Verbal bullying	Foul language	
		Threat	
	Physical bullying	Beating	
		Stealing	
	Sexual bullying	Verbal cues	
		Gestural cues	
Types of Bullying		Electronic cues	
	Cyber-bullying	Blocking	
		Excluding	
		Posting pictures and videos	
	Social bullying	Isolation	
		Disgust	
		Reprimand or threat	
	Disability	Social interaction	
Reasons of bullying		Communication difficulties	
Reasons of bunying	The lack of awareness	Child neglect	
		Peer awareness	

# 3.1. Types for Bullying

#### Verbal bullying

#### Foul language

The prevalent forms of verbal bullying observed among participants encompassed name-calling and ridicule. A significant number of participants addressed the issue of name-calling. For instance, participant T1 recounted, "A student said to another student with autism, 'You are stupid! You are disabled! You cannot do anything.'" Participant T4 substantiated T1's account, recounting an incident of witnessing an individual on the street labeling a child with autism as "crazy." Additionally, participant P6 recalled a family gathering during which some children referred to a child with ASD as "stupid." Furthermore, a notable portion of participants highlighted instances of sarcasm aimed at children with autism. Participant T2 shared an incident where a student from the general education population mocked them, saying, "Look at that student, moving his hand like a chicken, hahaha." Likewise, participant T4 disclosed that some students in mainstream education mocked both special education students and those with autism, sharing an example of a student remarking to their friends, "Look at how that student eats like a sheep! The ensuing laughter was shared by all present."

#### Threat

This section encapsulates the respondents' perspectives on the topic of "threat-based" verbal bullying. Initially, several participants indicated instances where children with autism encountered "intimidation," either from fellow students at school or children in their home or familial gatherings. For instance, participant T5 affirmed this by sharing, "Some students at school have told a student with autism, 'If you don't leave the classroom now, we will beat you." Many interviewees also recounted instances of individuals threatening students with autism, instructing them not to engage in play or share meals. The participants also delved into the matter of raised voices directed at children with autism. Participant P5 described, "while I was observing my son entering his classroom, I overheard a student yelling, "enter the class quickly, hurry up... enter quickly." Additionally, participant P6 relayed an incident where their sibling reported a guest shouting at their child without any apparent reason.

## 3.1.2 Physical bullying

#### Beating

Most participants pointed out that children with autism often face physical aggression from their typically developing peers in various settings and instances. For instance, participant P3 recounted an incident when asked about witnessing bullying firsthand, stating, "While we were at the market, my son was playing in the mall's play area. Suddenly, I saw a



child of his age hitting him and pushing him out of the play area." Participant T2 shared, "While I was in the classroom, I heard a commotion in the corridor... A group of students emerged, physically assaulting a student with autism and attempting to compel him into the classroom." Furthermore, participant T6 observed multiple instances of direct physical aggression occurring in his presence at school.

#### Stealing

The participants identified an additional form of physical bullying, namely, the exposure of children with autism to theft. Ten of the participants addressed this issue from various perspectives. For instance, participant P4 shared an incident involving his child with autism losing a watch at school. He recounted, "Upon returning from school, my son couldn't find his watch. When I inquired, he mentioned placing it in his bag. I promptly contacted his teacher, who responded, 'I don't know." Similarly, participant T6 recounted a case where a student with autism approached him to report the theft of their food. Participant P3 added, "at a graduation party, my daughter lost her bag," illustrating the range of experiences discussed.

## 3.1.3. Sexual bullying

#### Verbal cues

With the exception of two participants, the discourse regarding the exposure of children with disabilities to verbal sexual cues was notably sparse. For instance, participant T5 recounted an incident:

heard a typical student said to a student with ASD; "I love you" even though the student with ASD did not understand what that student wanted except; he told the teacher that the student was constantly saying that word to him.

Participant P2 shared that his son experienced verbal sexual bullying from his cousins, recalling, "The children, both my son with ASD and typical children, played together, and I would catch snippets of their conversations. One of them said to my son, 'Oh, sweet"'.Participant P5 conveyed that his son informed him about a neighbor's son affirming, "You are important to me." The limited mention of such encounters underscores the selectiveness in discussions among the participants.

#### Gestural cues

Nine of the participants highlighted instances where children with autism became targets of sexual gestures. For instance, participant T4 recounted episodes involving students with ASD being subjected to certain sexual gestures like "winking" and "sending kisses." They shared a firsthand observation:

One day, when I was supervising children's play in school, students with autism were playing with their normal peers. I saw one of the normal students send a kiss with a wink to one of the students with autism. I don't know why, but it was very bad.

Similarly, participant P3 recounted a situation where, during a family gathering, one of the cousins who had autism directed a kiss gesture towards them. The instances outlined by these participants collectively underline the exposure of children with autism to inappropriate sexual gestures.

#### Electronic cues

Most participants addressed the concerning matter of utilizing social media platforms to transmit sexual content to vulnerable individuals. For instance, participant P3 recounted, "I discovered an unfamiliar number on my son's messaging app, and it contained a kiss emoji along with explicit images." Likewise, numerous participants shared instances where they encountered sexual video clips in their children's accounts, often originating from deceptive profiles. Participant P1 provided an example, stating, "I uncovered that my son had received a sexually explicit video from a peer at school." These experiences collectively underscore the alarming trend of using social media to transmit inappropriate sexual content to young victims.

## 3.1.4. Cyber-bullying

## Blocking

The issue of cyberbullying emerged as a common concern discussed by all participants, focusing on the victimization experienced through social media, particularly instances involving account or contact blocking. For instance, participant P1 recounted, "My daughter approached me, sharing that her Facebook friends had blocked her account when she sought to join their group." Similarly, participant T2 relayed an account where a student with autism disclosed that a neurotypical peer accessed their Twitter account upon learning about their special needs. Another incident was detailed by P6, who mentioned that upon recognizing a child's disability, many individuals either restricted their access to accounts or isolated them altogether. These instances collectively highlight the distressing occurrence of cyberbullying,



specifically revolving around actions such as account or contact blocking.

#### Excluding

Eleven participants highlighted instances of individuals with autism being deliberately left out from engagement on social networking platforms. For instance, P2 shared, "My daughter is part of a WhatsApp group comprising female classmates from school. She has mentioned that her attempts to communicate within the group often go unanswered, causing her distress." Similarly, P5 recounted an incident where his daughter was excluded from a voice conversation while engaging in the game PUBG. Furthermore, several participants confirmed the trend of excluding children with autism from university chat groups. These occurrences collectively underscore the systematic exclusion of individuals with autism from social networking interactions.

#### Posting pictures and videos

Numerous participants highlighted the disconcerting trend of children posting images and videos of students with autism engaging in ordinary activities such as eating, sitting, or walking, often with the intention of mockery. For instance, T5 recounted, "I came across a photo on a student's phone depicting another student with autism eating. Beneath the image was a comment that simply read, 'Look.'" Similarly, P4 shared an upsetting incident, saying, "My daughter returned home in tears. When I inquired, she revealed that girls had taken a picture of her and circulated it amongst themselves during a family gathering." P1 described a distressing scenario, recounting, "A neighbor's child filmed my son while they were conversing and shared the video with his circle of friends." These occurrences collectively underscore the disturbing practice of using visual media to ridicule students with autism while engaging in ordinary activities.

## 3.1.5. Social bullying

#### Isolation

All participants consistently addressed the various facets of social bullying targeting children with autism, notably encompassing the form of "isolation." For instance, P2 recounted how their child routinely experienced isolation during family gatherings due to apprehension among peers. P6 contributed, sharing, "My son is consistently excluded from participating in activities with other children during social occasions." Expanding upon this, T3 detailed a pattern where neurotypical students deliberately isolated their peers with autism by engaging them in intricate games beyond their reach, such as puzzles. Participant T3 conveyed, "I witnessed typical students stating, 'Avoid interacting with that student; refrain from sitting or engaging in play with him.' Such incidents unfolded in the corridor, directly in front of the student in question."

#### Disgust

A substantial portion of participants acknowledged the recurring occurrence of phrases or actions reflecting aversion when individuals interact with children with autism. For instance, P5 shared, "I observed some of my siblings greet my son from a distance, deviating from the customary greeting norms we are familiar with." T6 recounted an incident, noting, "Upon observing a student with autism interacting with a neurotypical peer, I discerned a visible frown on the latter's countenance." This observation aligns with the experiences shared by many participants, highlighting instances where expressions and behaviors indicate a sense of disdain when dealing with children with autism.

#### Reprimand or threat

P2 recounted, stating, "I overheard one of my son's cousins telling him to leave or face the threat of physical aggression." Similarly, another participant shared an observation where certain students resorted to intimidation by warning children with autism not to report their wish to engage in play to the teacher. T3 contributed, stating, "I heard one of them saying to my son, 'Oh, you're from here, what a pity." These instances collectively illuminate the use of threats and derogatory remarks targeting children with autism.

# 3.2. Reasons of bullying

The participants in this study identified two primary categories as underlying causes of bullying, revolving around the nature of the disability and a lack of awareness. Within this thematic context, participants engage in discussions concerning factors that heighten the susceptibility of children with autism to bullying.

## 3.2.1. Disability

#### Social interaction:

Most participants, barring one exception, addressed factors potentially contributing to bullying among children with

autism. For instance, participants highlighted the prominent role of deficits in social interaction skills, such as the ability to engage in "effective play" and interpret social cues. For example, participant P1 shared, "I encountered a child with ASD who struggled to grasp the significance of a wink." Participant P3 concurred with this perspective, elaborating, "I concur that it's plausible that the root cause lies in the inability to comprehend the emotional states of others, irrespective of whether those emotions are positive or negative." Furthermore, a significant number of participants discussed the challenges children with autism face in collaborative play or cooperative tasks, suggesting that these difficulties may exacerbate the risk of bullying by peers.

## Communication difficulties

Numerous participants highlighted communication challenges as a contributing factor to potential bullying. For instance, participant 6 articulated, "Children with autism frequently face mockery due to their lack of sustained eye contact, stemming from their visual focus challenges." T5 further expanded upon this perspective, stating, "The slow pace of speech and the struggles with articulation subject students with autism to derisive treatment." The participants additionally underscored the issue of "Negligence and lack of follow-up" as a recurring theme. Participant number 3 offered insight into this, sharing, "I have observed instances where neurotypical children interrupt students with autism, not allowing them to complete their speech." These accounts collectively shed light on how communication difficulties may contribute to instances of bullying among children with autism.

## 3.2.2. Lack of awareness

## Child neglect

Many participants emphasized that certain parents overlook the importance of educating their children about various forms of bullying and strategies to prevent it. For instance, Participant T4 highlighted, "I've observed numerous instances where parents lack comprehension of the term 'bullying.' In one instance, a child faced isolation from peers, yet the parents remained unaware and didn't report the incident. Instead, the child reported it to me." Participant T6 recounted, "I witnessed a father reprimanding his son, yet he was oblivious to the fact that his actions could be classified as bullying. He admitted, 'I was unaware of that.'" Meanwhile, T3 brought up situations where students arrived at school with an unpleasant odor, and P5 noted that their child returned home with soiled clothes. Participant P2 shared a scenario where their child refused to eat lunch and the teacher was unaware of the cause. These accounts collectively highlight the significance of parental awareness and education regarding bullying issues and their prevention.

#### Peer awareness

Unanimously, all participants highlighted the absence of proper preparation among typical students to interact with their peers who have autism. For instance, T1 emphasized, "There's a dearth of readiness or education for neurotypical students on effectively engaging with individuals with disabilities." T2 contributed, "A noticeable apprehension exists when it comes to interacting with students with autism, underscoring a significant dearth of awareness." Likewise, T6 conveyed, "General education students seem to be lacking the essential skills required for engaging with their counterparts who have autism." These insights collectively underscore the evident deficiency in adequately preparing neurotypical students to interact with their peers who have autism.

# 4 Discussions

This study adds to the growing body of research that seeks to identify the different forms of bullying experienced by school-aged individuals with autism, from the perspectives of parents and educators. Through their candid insights, the study's participants shed light on the causes and types of bullying those individuals with ASD face, whether it takes place at home or in school settings. This underscores the significance of the topic to parents and educators, and the prevalence of bullying within society and educational contexts. Additionally, previous research studies reviewed in this study have highlighted the severity of this phenomenon and its higher rates in comparison to other special needs groups.

## 4.1. Types of bullying:

The present qualitative investigation reveals that children with autism are frequently subjected to verbal bullying in both home and school environments, as reported by the study's participants. This type of bullying manifests through the use of obscene language, verbal threats, and derogatory animal names and ridicule. Notably, participants observed that such harassment often occurs during official events or in integrated classrooms. These findings align with prior research, such as the study by Wainscot et al. [41] which found that 72% of students with ASD interviewed experienced bullying in the form of name-calling, yelling, and physical aggression. Similarly, Cappadocia et al. [7] and Maïano et al. [24] observed that verbal and interpersonal bullying were the most prevalent forms of bullying experienced by children with

autism.

Numerous studies have demonstrated the prevalence of physical bullying among children diagnosed with Autism Spectrum Disorder (ASD), including those conducted by Cappadocia et al. [7], Little [21], Wainscot et al. [41], and Wolke and Skew [45]. For instance, Little [21] reported that mothers of children with ASD, aged between 4 to 17 years, revealed that their children had been victims of physical bullying, including being hit by peers or attacked by a gang.

These findings are consistent with the present investigation, which revealed that the majority of participants had witnessed physical bullying in various settings, including schools, homes, and public areas. Specifically, participants identified three types of physical bullying: beatings, property theft, and property damage, which were perpetrated by peers or family members. Also, one of the most important findings of this study is that the participants discussed sexual bullying that students with autism are exposed to in gatherings that are usually in school or social events.

This study determined the forms of sexual bullying mentioned by most of the participants, and they talked about it in great detail. Most of the participants specified that children with autism are exposed to a kind of words of sexual significance without the slightest knowledge of their meaning, such as "I love you." This study concluded that there are sexual gestures that students with autism are exposed to, such as "winks" by ordinary students while playing in the school. Moreover, the participants reported that children with autism were exposed to a type of cyber sexual bullying, which, as the participants reported, is common among them, such as sending sexual images. These results are consistent with a number of studies reviewed in this study.

Several researchers found that children with ASD may be exposed to a type of sexual bullying either at house or at school [12] [23] [20]. Lu et al. [23] found that students in regular classes on a part-time basis were more likely to report sexual harassment than those in full-time classes. In a study conducted by Dewinter et al. [12], the sexual behaviors, attitudes, and interests of 50 adolescent boys with ASD aged between 15 and 18 years were compared to a control group of 90 typically developing boys. The study found that a number of boys with ASD reported being forced into sexual behaviors.

This study concluded that students with autism are exposed to cyberbullying in different forms. The participants indicated that they noticed that there are cases in which children with autism are exposed to prevention when they use social media. They also reported that students with autism are subject to exclusion when there are agreements between students or electronic posts. Moreover, most of the participants pointed out the fact that some children with autism were photographed and mocked online as a result of family meetings or even in integration classes. These results are in agreement with the results of the study conducted by Pham and Adesman [43], instances of cyberbullying entail the act of sending intimidating or menacing messages, deliberately exposing embarrassing information of the victims in online platforms, and assuming the victims' identity to impair their relationships with others.

Of the results, according to which most of the participants indicated that students with autism are exposed to many types of social bullying, such as "isolation", "disgust", or direct reprimand in front of friends or relatives. Also, the participants indicated that social bullying occurs through frowning, facial gestures, or imitating stereotypical movements that are issued as a result of disability. Several studies [7] [23] [24] have cited these findings. For example, Lu et al. [23] found that social bullying such as social exclusion, insults or teasing, and extortion, was exposed by students with autism, whether at school or at home.

### 4.2. Causes

Our investigation has yielded numerous findings that shed light on the underlying causes of bullying experienced by children with autism, as perceived by parents and teachers. Participants pointed out that one of the contributing factors is the nature of the disability, particularly the impaired social communication between individuals with autism and the surrounding community, which hinders their ability to comprehend social cues and interpret instances of bullying. This, in turn, affects their capacity to defend themselves, especially in cases of direct bullying. These results are consistent with what has been achieved by many researchers. Individuals who have been subjected to bullying frequently manifest challenges in their comprehension of social interactions [27], assume a subordinate position within the social hierarchy [8], and are perceived as divergent or deviating from the established norms of their peer group [17]. The social encounters encountered by children with Autism Spectrum Disorder (ASD) bear striking resemblances. In terms of their social standing, they tend to experience higher levels of rejection and lower levels of popularity when compared to their typically developing peers [11].

Furthermore, individuals with ASD, particularly those with other Special Educational Needs and Disabilities (SEND), typically have a smaller number of friendships [5] and possess more limited social networks [9] in comparison to their peers [22]. Park et al. [33] found in 34 relevant studies indicated that ASD students faced deficits in social interaction and communication, externalizing and internalizing symptoms, and integrated inclusive school settings were associated

with higher victimization rates, while externalizing symptoms were associated with higher perpetration rates. Twyman et al. [44] added that individuals with ASD may encounter challenges in developing assertiveness and self-advocacy skills, which may impede their ability to defend themselves against bullies or seek assistance from others.

Our study also found that lack of awareness among peers at school or even individuals in the outside community causes bullying towards individuals with autism. Parents and teachers indicated that the lack of awareness of how to deal with students with autism causes them to fail to communicate effectively with their peers, and thus the spread of bullying. They indicated that a lack of attention to the child and understanding of bullying cases may expose children with autism to direct bullying. The participants confirmed that the lack of awareness among peers and the local community of the importance of effective communication increases the chances of bullying. In a study of mothers of children with ASD aged 4–17 years old, 75% of the children were exposed to emotional bullying, while 73% were exposed to physical bullying by peers and siblings at least once in the past year [23]. Several studies have confirmed that individuals with autism are exposed to bullying more often than their typical peers [7] [33]. McDonnell et al. [27] found that there is a relationship between bullying-forward children with ASD and neglect.

This study possesses several strengths. Firstly, it is among the pioneering studies that utilized a qualitative approach to identify the types of bullying experienced by school-age children with autism in early education settings, specifically in three cities located in the northern region of the Kingdom of Saudi Arabia. Secondly, the study is distinctive in its integration of perspectives from both teachers and parents in identifying the various forms of bullying and the underlying reasons behind students' experiences of bullying. On the other hand, based on the findings of this study, we propose several suggestions for school administrators, teachers, and parents to mitigate bullying experienced by children with autism. Firstly, this study suggests that school administrators increase the awareness of the educational community about the types and forms of bullying through the provision of regular newsletters. Additionally, providing professional development and ongoing training for special education and general education teachers in strategies for addressing bullying behaviors and detection methods is recommended. Furthermore, school-wide policies aimed at preventing bullying and training for teachers and staff can contribute to improving the overall school climate [47].

Secondly, building upon the results of this study, we propose that teachers collaborate with parents in enhancing awareness and utilizing electronic tools to combat cyberbullying by organizing training sessions for parents and familiarizing them with the risks associated with cyberbullying. Also, Interventions designed to address the involvement of students with ASD in bullying must adopt targeted but multifaceted approaches to address relevant risk factors. Programmes tailored to the identification, remediation, and prevention of cyberbullying should be developed for special education schools. It may be advisable for parents to exercise greater control over their children's use of the internet and cell phones, monitor their activities, and provide them with information on the responsible use of these tools.

#### 5 Limitations

Our study's small sample size constrains our ability to identify potential moderators of bullying risk. Additionally, our findings suggest that victims may interpret non-bullying situations as bullying, while bullies may perceive bullying situations as non-bullying. In addition to the aforementioned limitations, the present study encountered a constraint regarding the exploration of sensitive subjects such as "sexual bullying" in relation to the conservative cultural milieu of Saudi society. Moreover, a noteworthy observation was the reluctance displayed by teachers in providing detailed descriptions of certain incidents that have the potential to impact prevailing customs, traditions, and even their professional obligations.

#### **6 Future Research**

The findings derived from this qualitative research point towards several avenues for future investigation. First, future studies could focus on exploring each type of bullying identified in this study, delving into their underlying causes and identifying effective intervention strategies. Additionally, while this study examined a sample from three cities in the northern region of the Kingdom (Tabuk, Arar, and Al-Jouf), future research could concentrate on other regions within the country to account for demographic and cultural diversity. Moreover, as this study included both male and female teachers in non- separate schools, it is possible for future research, in line with the vision outlined in the government's 2030 agenda, to investigate the impact of gender integration on the types and causes of bullying experienced by children with autism. To the best of our knowledge, this qualitative study is the first to measure ages ranging from 10 to 15 years, thus it is possible to identify bullying types experienced by children at older ages and in more advanced educational stages. Furthermore, this study did not specifically focus on determining the educational level of parents. Future research could explore the link between parental educational level and awareness levels regarding different forms of bullying. Lastly, while this study primarily presented an overview that helps shape an understanding of the



bullying experiences faced by children with autism, it is also possible to replicate this study to investigate bullying behaviors exhibited by individuals with autism towards their neurotypical peers.

#### 7 Conclusions

The aim of this study was to identify the types and causes of bullying faced by school-age children with autism in inclusive programs in the cities of Tabuk, Arar, and Al-Jouf in the northern region of Saudi Arabia. A qualitative descriptive research approach was employed, and invitations were sent to teachers and parents in those cities. Twelve participants were recruited, consisting of six teachers and six parents who met the inclusion criteria. Semi-structured interviews were conducted with the participants, and thematic analysis was used to analyze the data, which was coded using the software "Dedoose". Inter-coder agreement was achieved through discussion, with a percentage agreement of 86%. The participants agreed that children with autism are subjected to verbal bullying, including the use of offensive language and verbal threats. They also indicated the presence of physical bullying experienced by these children, such as hitting, stealing, and property damage. Additionally, the participants mentioned that some children experience sexual bullying through verbal, gestural, or electronic signals. The study also found that children with autism may be exposed to cyberbullying, such as exclusion or the sending of videos and images. Social bullying was also evident, as reported by the participants, through exclusion, isolation, and disgust. The study recommended increased awareness among peers, parents, and teachers regarding the nature of disability and the occurrence of bullying.

#### **Informed Consent**

Teachers and parents informed consent was obtained from all individual participants included in the study prior to their participation.

## **Funding:**

The submission of this paper (article) was funded by a Grant to Abdullah Alatawi from University of Tabuk- Deanship of Scientific Research, Saudi Arabia (0117-1442-S).

# Acknowledgements

The author extends their appreciation to the Deanship of Scientific Research at University of Tabuk for funding this work through Research no. 0117-1442-S.

## **Conflict of interest**

The author declares that there is no conflict regarding the publication of this paper.

#### References

- [1] American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders (DSM-IV-TR). https://dsm.psychiatryonline.org/doi/abs/10.1176/appi.books.9780890420249.dsm-iv-tr
- [2] American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). https://doi.org/10.1176/appi.books.9780890425596
- [3] Attwood, T. (2007) The Complete Guide to Asperger's Syndrome. London: Jessica Kingsley Publishers.
- [4] Beckman, L., Hellström, L., & von Kobyletzki, L. (2020). Cyber bullying among children with neurodevelopmental disorders: A systematic review. Scandinavian Journal of Psychology, 61(1), 54–67. <a href="https://doi-org.sdl.idm.oclc.org/10.1111/sjop.12525">https://doi-org.sdl.idm.oclc.org/10.1111/sjop.12525</a>
- [5] Cairns, R. B., & Cairns, B. D. (1994). Lifelines and risks: Pathways of youth in our time. Cambridge University Press.
- [6] Campbell, J. L., Quincy, C., Osserman, J., & Pedersen, O. K. (2013). Coding in-depth semi structured interviews: Problems of unitization and intercoder reliability and agreement. Sociological Methods & Research, 42, 294–320. <a href="https://doi.org/10.1177/0049124113500475">https://doi.org/10.1177/0049124113500475</a>
- [7] Cappadocia, M. C., Weiss, J. A., & Pepler, D. (2012). Bullying experiences among children and youth with autism spectrum disorders. Journal of Autism and Developmental Disorders, 42, 266–277. <a href="https://doi.org/10.1007/s10803-011-1241-x">https://doi.org/10.1007/s10803-011-1241-x</a>.



- [8] Card, N. A., & Hodges, E. V. E. (2008). Peer victimization among schoolchildren: Correlations, causes, consequences, and considerations in assessment and intervention. School Psychology Quarterly, 23(4), 451–461. https://doi.org/10.1037/a0012769
- [9] Chamberlain, B., Kasari, C., & Rotheram-Fuller, E. (2007). Involvement or isolation? The social networks of children with autism in regular classrooms. Journal of autism and developmental disorders, 37(2), 230–242. https://doi.org/10.1007/s10803-006-0164-4
- [10] Cook, C. R., Williams, K. R., Guerra, N. G., Kim, T. E. & Sadek, S. (2010). Predictors of bullying and victimization in childhood and adolescence: A meta-analytic investigation. School Psychology Quarterly, 25, 65–83.
- [11] Cotugno, A. J. (2011). Group interventions for children with Autism Spectrum Disorders: A focus on social competency and social skills. Jessica Kingsley Publishers.
- [12] Dewinter, J., De Graaf, H., & Begeer, S. (2017). Sexual Orientation, Gender Identity, and Romantic Relationships in Adolescents and Adults with Autism Spectrum Disorder. Journal of autism and developmental disorders, 47(9), 2927–2934. https://doi.org/10.1007/s10803-017-3199-9
- [13] Eldevik, S., Titlestad, K.B., Aarlie, H., & Tønnesen, R. (2019). Community implementation of early behavioral intervention: Higher intensity gives better outcome. European Journal of Behavior Analysis, 11(2), 1-19. https://doi.org/10.1080/15021149.2019.1629781
- [14] Greenspan, S., & Love, P.F. (1997) Social Intelligence and Developmental Disorder: Mental Retardation, Learning Disabilities, and Autism, in W.E. MacLean, Jr. (ed), Ellis' Handbook of Mental Deficiency, Psychological Theory and Research (pp. 311–342). Mahwah, NJ.
- [15] Greenspan, S., Loughlin, G., & Black, R.S. (2001) 'Credulity and gullibility in people with developmental disorders: A framework for future research', in L.M. Glidden (ed), International review of research in mental retardation, vol. 24 (pp. 101–135). San Diego.
- [16] Honey, M., Pearson, G., & Schweingruber, A. (2014). STEM integration in K-12 education: status, prospects, and an agenda for research. Washington: National Academies Press
- [17] Horowitz, J. A., Vessey, J. A., Carlson, K. L., Bradley, J. F., Montoya, C., McCullough, B., & David, J. (2004). Teasing and Bullying Experiences of Middle School Students. Journal of the American Psychiatric Nurses Association, 10(4), 165–172. https://doi.org/10.1177/1078390304267862
- [18] Kerns, C. M., Maddox, B. B., Kendall, P. C., Rump, K., Berry, L., Schultz, R. T., ... Miller, J. (2015). Brief measures of anxiety in non-treatment- seeking youth with autism spectrum disorder. Autism: The International Journal of Research and Practice, 19(8), 969–979. https://doi.org/10.1177/1362361314558465
- [19] Kloosterman, P. H., Kelley, E. A., Craig, W. M., Parker, J. D. A., & Javier, C. (2013). Types and experiences of bullying in adolescents with an autism spectrum disorder. Research in Autism Spectrum Disorders, 7(7), 824–832. https://doi.org/10.1016/j.rasd.2013.02.013
- [20] Lambert, V. A., & Lambert, C. E. (2013). Qualitative Descriptive Research: An Acceptable Design. Pacific Rim International Journal of Nursing Research, 16(4), 255–256. Retrieved from <a href="https://he02.tci-thaijo.org/index.php/PRIJNR/article/view/5805">https://he02.tci-thaijo.org/index.php/PRIJNR/article/view/5805</a>
- [21] Little, L. (2002) Middle-class mothers' perceptions of peer and sibling victimization among children with Asperger's syndrome and nonverbal learning disorders. Issues in Comprehensive Pediatric Nursing. 25(1), 43–57.
- [22] Locke, J., Ishijima, E. H., Kasari, C., & London, N. (2010). Loneliness, friendship quality and the social networks of adolescents with high-functioning autism in an inclusive school setting. Journal of Research in Special Educational Needs, 10(2), 74–81. <a href="https://doi.org/10.1111/j.1471-3802.2010.01148.x">https://doi.org/10.1111/j.1471-3802.2010.01148.x</a>
- [23] Lu, H. H., Chen, D. R., & Chou, A. K. (2022). The school environment and bullying victimization among seventh graders with autism spectrum disorder: a cohort study. Child and adolescent psychiatry and mental health, 16(1), 22. <a href="https://doi.org/10.1186/s13034-022-00456-z">https://doi.org/10.1186/s13034-022-00456-z</a>
- [24] Maïano C, Normand CL, Salvas M-C, et al. (2016) Prevalence of school bullying among youth with autism spectrum disorders: a systematic review and meta-analysis. Autism Research 9: 610–615.
- [25] Mandell, D. S., Novak, M. M., & Zubritsky, C. D. (2005). Factors associated with age of diagnosis among children with autism spectrum disorders. Pediatrics, 116(6), 1480–1486. https://doi.org/10.1542/peds.2005-0185



- [26] Matson, J. L., & Minshawi, N. F. (2006). Early intervention for autism spectrum disorders: A critical analysis. Elsevier Science. <a href="https://www.elsevier.com/books/early-intervention-for-autism-spectrum-disorders/matson/978-0-08-044675-2">https://www.elsevier.com/books/early-intervention-for-autism-spectrum-disorders/matson/978-0-08-044675-2</a>
- [27] McDonnell, C. G., Boan, A. D., Bradley, C. C., Seay, K. D., Charles, J. M., & Carpenter, L. A. (2019). Child maltreatment in autism spectrum disorder and intellectual disability: results from a population-based sample. Journal of child psychology and psychiatry, and allied disciplines, 60(5), 576–584. https://doi.org/10.1111/jcpp.12993
- [28] MILES, M. B., & HUBERMAN, A. M. (1984). Drawing Valid Meaning from Qualitative Data: Toward a Shared Craft. Educational Researcher, 13(5), 20–30. <a href="https://doi.org/10.3102/0013189X013005020">https://doi.org/10.3102/0013189X013005020</a>
- [29] Miller, T. W., Beane, A., & Kraus, R. F. (1998). Clinical and cultural issues in diagnosing and treating child victims of peer abuse. Child Psychiatry and Human Development, 29(1), 21–32.
- [30] Morton, H. E., Gillis, J. M., Mattson, R. E., & Romanczyk, R. G. (2019). Conceptualizing Bullying in Children with Autism Spectrum Disorder: Using a Mixed Model to Differentiate Behavior Types and Identify Predictors. Autism: The International Journal of Research and Practice, 23(7), 1853–1864.
- [31] Nettelbeck, T., & Wilson, C. (2002) 'Personal Vulnerability to Victimisation of People with Mental Retardation', Trauma, Violence, & Abuse 3(4): 289–306.
- [32] Olweus, D. (1993). Bullying at school: What we know and what we can do. Oxford, UK: Blackwell.
- [33] Park, I., Gong, J., Lyons, G. L., Hirota, T., Takahashi, M., Kim, B., Lee, S. Y., Kim, Y. S., Lee, J., & Leventhal, B. L. (2020). Prevalence of and Factors Associated with School Bullying in Students with Autism Spectrum Disorder: A Cross-Cultural Meta-Analysis. Yonsei medical journal, 61(11), 909–922. https://doi.org/10.3349/ymj.2020.61.11.909
- [34] Pham, T., & Adesman, A. (2015). Teen victimization: prevalence and consequences of traditional and cyberbullying. Current opinion in pediatrics, 27(6), 748–756. https://doi.org/10.1097/MOP.0000000000000290
- [35] Sandelowski, M. (2000). Whatever happened to qualitative description? Research in Nursing & Health, 23(4), 334-340. https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G
- [36] Smith PK, del Barrio C and Tokunaga RS (2012) Definitions of bullying and cyberbullying: how useful are the terms? In: Bauman S, Cross D and Walker J (eds) Principles of Cyberbullying Research. London: Routledge, pp.54–68.
- [37] Sofronoff, K., Attwood, T., Hinton, S., & Levin, I. (2007) 'A Randomised Controlled Trial of a Cognitive Behavioural Intervention for Anger Management in Children Diagnosed with Asperger Syndrome', Journal of Autism and Developmental Disorders 37: 1203–1214.
- [38] Sofronoff, K., Dark, E., & Stone, V. (2011). 'Social vulnerability and bullying in children with asperger syndrome.' Autism, 15 (3), pp. 355-372.
- [39] Stäubli, A., Nussbaumer, S. U., Allen, S. K., Huggel, C., Arguello, M., Costa, F., ... & Zimmermann, M. (2018). Analysis of weather-and climate-related disasters in mountain regions using different disaster databases. Climate change, extreme events and disaster risk reduction: towards sustainable development goals, 17-41.
- [40] Sterzing, P. R., Shattuck, P. T., Narendorf, S. C., Wagner, M., & Cooper, B. P. (2012). Bullying involvement and autism spectrum disorders. Pediatric and Adolescent Medicine, 156(11), 1058–1064. <a href="https://doi.org/10.1001/archpediatrics.2012.790">https://doi.org/10.1001/archpediatrics.2012.790</a>.
- [41] Wainscot, J. J., Naylor, P., Sutcliffe, P., Tantam, D., & Williams, J. V. (2008). Relationships with peers and use of the school environment of mainstream secondary school pupils with Asperger syndrome (high-functioning autism): A case-control study. International Journal of Psychology & Psychological Therapy, 8(1), 25–38. Retrieved from <a href="http://www.redalyc.org/articulo.oa?id=56080103">http://www.redalyc.org/articulo.oa?id=56080103</a>
- [42] Weiss, J. A., Cappadocia, M. C., Tint, A., & Pepler, D. (2015). Bullying victimization, parenting stress, and anxiety among adolescents and young adults with autism spectrum disorder. Autism Research, 8, 727–737. https://doi.org/10.1002/aur.1488.
- [43] Wing, L. (1991) 'The relationship between Asperger's syndrome and Kanner's autism', in U. Frith (ed), Autism and Asperger syndrome (pp. 93–121). New York: Cambridge University Press.
- [44] Wolke D, Copeland WE, Angold A, et al. (2013) Impact of bullying in childhood on adult health, wealth, crime



and social outcomes. Psychological Science 24(10): 1958–1970.

- [45] Wolke, D., & Skew, A. J. (2012). Bullying among siblings. International Journal of Adolescent Medicine and Health,24(1), 17–25. https://doi.org/10.1515/ijamh.2012.004.
- [46] Yaylaci, F., & Miral, S. (2017). A comparison of DSM-IV-TR and DSM-5 diagnostic classifications in the clinical diagnosis of autistic spectrum disorder. Journal of Autism & Developmental Disorders, 47(1), 101–109. https://doi.org/10.1007/s10803-016-2937-8
- [47] Zablotsky, B., Bradshaw, C. P., Anderson, C. M., & Law, P. (2014). Risk factors for bullying among children with autism spectrum disorders. Autism: The International Journal of Research and Practice, 18(4), 419–427. https://doi.org/10.1177/1362361313477920.