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Bullying Experiences Among Families and Children with Autism Spectrum Disorder, Developmental Delay, or Varying Ethnicities

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Citation

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Abstract

Bullying perpetration in schools is a significant problem within the United States that has shown to increase mental health issues and adverse outcomes in children. The purpose of this extended literature review is to evaluate the significance of bullying in children with developmental delay (autism spectrum disorder) and majority and minority ethnic groups. The review of literature analyzes implications of bullying within these vulnerable populations and the family factors associated with peer victimization. An analysis from twenty peer-reviewed chosen articles reflects heightened levels of bullying, mental health problems, and negative experiences of all researched populations. The increased amount of victimization in children is associated with differences in socialization, physical characteristics, communication behaviors, home and school environments, and bad perceptions about oneself. Adverse childhood experiences and low parental support increases bullying risk in ASD and ethnic majority/minority children. Gaps and limitations in the literature reflect minimal research about the correlations of bullying in developmentally disabled children and ethnically different children, as well as distinct quantitative data pertaining to all majority/minority groups and victimization. Implications of the nursing profession include building communication with ASD and ethnically diverse parents, teachers, peers, and children, screening early for ACEs and bullying prevalence, and help build communication and socialization strategies to utilize in school.

Keywords: Autism Spectrum Disorder, bullying, developmental delay, ethnicity, school victimization, adverse childhood experiences

Introduction

Bullying is an imbalance of power between a more threatening perpetrator who frequently attempts to impose either psychological or physical harm against a perceived weaker victim (Shelly et al., 2021). Bullying perpetration, also commonly referred to as peer victimization or harassment, can manifest in various ways including making fun of a victim, purposefully excluding them, spreading rumors, teasing, and physical abuse (Matthias et al., 2021). In recent decades since the creation of the internet, cyberbullying has emerged through communication technology and social media as a new platform for bullying perpetrators (Mishna et al., 2020). Cyberbullying examples consist of posting, sending, or sharing rude or aggressive messages, pretending to be someone else in an attempt to hurt, or distributing humiliating information online about peers (Matthis et al., 2021). Children are disproportionately susceptible to becoming a target of bullying when part of a vulnerable population such as autism spectrum disorder (ASD), a racial/ethnic majority or minority, or having a developmental disability (Bucchianeri et al., 2016). There is a gap in current literature concerning the intersectionality between developmentally disabled children of contrasting race, cultures, and ethnicities on the significance of bullying perpetration.

Purpose

The scope of my research is to explore implications of bullying in children with developmental disabilities and vulnerable ethnicities, as well as analyze the perspectives of bullying from the individual child and family components. The nursing profession can better enhance the clinical practice of the pediatric population by further understanding the comprehensive circumstances that bullying perpetration and peer victimization brings to sensitive groups like the developmentally disabled and ethnic minority.

Methods

Study Design

A systematic review of literature was organized through the correlation of autism spectrum disorder, developmentally delayed children, various cultures and/or ethnicities, and bullying in schools. This literature review was conducted through PRISMA 2020 guidelines. The review is comprised of articles derived from Cumulative Index to Nursing and Allied Literature (CINHAL) Complete.

Information Sources

The CINHAL database was accessed to obtain unbiased literature pertaining to bulling experiences in vulnerable populations. A research librarian was used to assist in the search of the online CINHAL research articles.

Search Strategy

Two separate searches relating to the topic were done using varying keywords. The first search done through CINAHL used subject headings "bullying" and "Black or African American or African-American or Asian or Marshallese or Pacific Islander or Hispanic or Latino or Indian" and "school." The second search done through CINHAL used subject headings "ASD or autism spectrum disorder or Asperger's or autistic or autism spectrum condition or Asperger's syndrome or developmental delay" and "bullying or cyberbullying or harassment or teasing."

Inclusion/Exclusion Criteria.

After initial CINHAL searches, articles were reviewed based on the relevance of the topic of children with ASD, developmental delay, varying ethnicities, and bullying. Search limiters for CINHAL searches included articles published from 2016-2021 and written in the English language. Articles were excluded if research did not take place in the United States, did not include children with ASD, developmental delay, or varying ethnic minorities/majorities, and did not include children or families.

Search Results

The first initial search through CINHAL yielded 71 articles. Four articles were excluded due to being non-peer-reviewed dissertation articles. Titles and abstracts were reviewed on the 67 articles, 40 were removed, and 27 remained for a full article review. Seventeen were removed after full-text review as a result of excluding inclusion criteria, leaving 10 full-text articles for review. The second search through CINHAL yielded 92 articles. Four articles were excluded due to being dissertations and periodicals. The remaining 88 articles' titles abstracts were reviewed before excluding 62, leaving 24 for full-text articles review. Finally, 14 articles were removed for not meeting inclusion criteria, and 10 articles were left for

literature review. Refer to Appendix B: Selection Process of Included Studies First Search and Appendix C: Selection Process of Included Studies Second Search.

Results

Data Extraction

Refer to Appendix A: Evidence Table, which highlights the article authors, publication year, country of origin, independent and dependent variable(s), research design, sample method (n=), data collection process, brief summary of results, and level of evidence strength for each of the extracted twenty articles used for literature review.

Literature Review

Bullying in Children with ASD

Children with developmental disabilities may have any of the following conditions: "Attention-deficit/hyperactivity disorder, autism spectrum disorder, vision impairment, cerebral palsy, moderate-to-profound hearing loss, learning disability, intellectual disability, seizure, stuttering, or stammering in the past 12 months, or any other developmental delay" (Centers for Disease Control and Prevention [CDC], 2021, section 3). Students with disabilities are victimized almost twice as much compared to students without disabilities (Pfeffer, 2016). Children with ASD are of particular concern within the developmental delay category because of the incidence of bullying victimization in these children to be well over 50%, as opposed to 20-30% of children without ASD (Forrest et al., 2019). In fact, 92% of children with ASD were found to have been victimized more than once in the past 12 months (Pfeffer, 2016). This raises the question as to why developmentally disabled children with ASD are victimized at such a higher rate than typically developed children, and how does this affect them.

ASD is a neurodevelopmental condition that exists along a spectrum of varying symptoms manifesting "persistent challenges of social interaction, speech and nonverbal communication, and restricted/repetitive behaviors" (American Psychiatric Association, 2018, section 1). ASD has a pediatric onset that usually emerges by age 2 years; however, most signs of disability are usually appreciated by healthcare providers once a child enters a school environment (American Psychiatric Association, 2018,

section 1). The cause of ASD is generally thought to be genetics, albeit researchers have not officially

recognized this as the main cause of the condition due to contributing environmental risk factors (Forrest

et al., 2019). Environmental conditions that increase a child's risk of being diagnosed with ASD have to

do with events prior to conception or birth, such as older parental age, prenatal exposure to polluted air or

toxic pesticides, oxygen deprivation during birth, maternal obesity, diabetes or immune disorders, low

birth weight or prematurity (National Institute of Environmental Health Sciences, 2021).

One in 54 children are recognized as having ASD in the United States and four out of five

affected children are male (Pfeffer, 2016). It is hypothesized that females live with ASD at a higher rate

than reported but go undiagnosed as a result of displaying misinterpreted qualities of the autism spectrum

(Pfeffer, 2016). The prevalence of this developmental disability has increased dramatically over the past

ten years and is likely due to better diagnostic and screening capabilities, enhanced awareness of these

conditions, and greater access to services (CDC, 2020).

Children have a larger possibility of being bullying victims when having a lower socioeconomic

status, ASD, and ethnic minority status. ASD exists relatively equally among all socioeconomic status,

race, culture, and ethnicity, but these demographics are factors that may add to the incidence of peer

victimization (Forrest et al., 2019). Reports from the Autism and Developmental Disabilities Monitoring

(ADDM) indicate that white children are diagnosed at a higher rate than Black and Latinx children,

although the gap has narrowed from previous years (CDC, 2019). This could be attributed to language

barriers, lower access to healthcare because of low income or non-citizenship, or stigma about mental

health and disability. In a study among 1057 children with ASD, it was concluded that nonwhite children

have a 159% greater chance of being bullied often rather than have never been bullied alternative to white

children (Forrest et al., 2019). Within the same study, it was found that children living in households with

a lower socioeconomic status (under the US federal poverty level) were more likely to be repeatedly

bullied over children of higher socioeconomic status (Forrest et al., 2019).

Children with ASD are one of the most vulnerable populations to either have or eventually

develop comorbid mental health problems due to the implications of their disability (Rodriguez et al.,

2019). The estimated number of Children with ASD living with multiple mental health problems is approximately 70-81%, with 42% of them experiencing two or more internalizing (depression, anxiety) or externalizing (impulsiveness, hostility, short attention span, self-injury) mental health issues (Rodriguez et al., 2019). Long-term research indicates that children with developmental disabilities who are consistently victimized by peers are at an increased risk of developing mental health problems like depression, anxiety, and aggression (Rodriguez et al., 2019). Similarly, students experience a substantial increase in bullying when they have mental health or behavioral/emotional issues. In fact, a study of a school-based population that children with both mental health problems and a physical/intellectual disability endure the highest amounts of harassment out of everyone in the school setting (Bucchianeri et al., 2016).

Children with ASD are likely to display clear and obvious behaviors that enhance the probability of experiencing peer victimization (Adams et al., 2020). Insufficient social skills, difficulty in communication, inadequate emotion control, and decreased or beneficial number of positive relationships with classmates are risk factors that contribute to bullying perpetration (Fisher & Taylor, 2016). In a case control survey study by Adams, Taylor, and Bishop from 279 parents of Children with ASD, it was found that poor hygiene, rigid rule-keeping, frequent meltdowns, and self-injury were directly correlated with higher rates of negative peer experiences (2020).

Deficiency of communication and social skills of children with ASD is a particular behavioral trait that directly affects the higher rate of bullying. An analysis of children with aged 11-22 showed that children who have a substantial struggle in speaking with peers are seven times more likely to be bullied than those who did not have trouble speaking (Matthias et al., 2021). Children with ASD have a lack of understanding of various social situations, which could justify the reason these developmentally disabled children have issues comprehending bullying victimization (Hodgins et al., 2018). It may be difficult or confusing for children with ASD to recognize peer behavior as malicious (Fisher & Taylor, 2016). Although children with ASD are mostly able to understand the types of bullying situations, including

physical, social, and stealing possessions, it has proven to be complicated for them to identify these situations within their everyday life (Hodgins et al., 2018).

Deficits that children with ASD have in the "theory of mind" cognitive philosophy, which refers to the ability of a person to impute the mental states and perspectives of another person, is attributed to both higher rates of misinterpreted bullying and victimization circumstances. Children on the autism spectrum have a harder time using empathy by not being able to discern the feelings and emotions of peers, which in turn leads to low reports of bullying perpetration (Forrest et al., 2019). These hardships in communication heightened the opportunities of perpetrators to victimize children with ASD (Espelage et al., 2017).

Children with ASD have also been found to be the bullying perpetrators in school due to behavioral traits associated with the autism spectrum (Hoover & Kaufman, 2018). Low levels of empathy and inability to take perspectives of their peers is a major contributing factor to bullying others (Forrest et al., 2019). Children with ASD are unable to put themselves in others' shoes and cannot interpret a situation, leading to externalizing problems such as anger, aggression, physical harm, etc. They are more likely to react aggressively to social situations with peers as a result of their narrow social problem-solving abilities (Matthias et al., 2021).

Children with ASD are more prone to not attend school and put themselves in situations where bullying victimization is expected to occur. Over 35% of parents of children with ASD had reported in a study that their children refused to go to school due to being a victim of harassment (McClemont et al., 2020). The rate of school refusal increases as children get older with age and if the child has comorbid conditions such as ADHD or mental health problems (Matthias et al., 2021). Children with ASD are more likely to not engage in future friendships with other peers, leaving them more socially withdrawn and vulnerable to victimization when they experience these types of bullying situations with ill-intended peers (Fisher & Taylor, 2016).

Many children with ASD believe that they are targets of bullying due to his or her personality and peer's beliefs of them. In a qualitative analysis of ASD adolescents, many reported reasons for the

bullying to be things like "maybe that was kind of my fault," and "I am not exactly approachable" (Fisher & Taylor, 2016). The children went on to explain that they felt it was easy to be bullied due to their perception of being "different" from all the other kids (Fisher & Taylor, 2016). In addition, they perceived their peers to not like them as people or want to be around them as friends (Fisher & Taylor, 2016).

Bullying in Diverse Racial and Ethnic Groups

Diversity is defined by recognition, belief, and acceptance of differences in race, ethnicity, culture, beliefs, religion, gender, sexuality, disability, physical characteristics, language, socioeconomic status, marital status, etc (Juvonen et al., 2018). Race and ethnicity are common physical traits frequently linked to biological ancestry and the acknowledgement of one's cultural group identification, respectively (Vitoroulis & Vaillancourt, 2015). Ethnic groups recognized in the most recent United States Census are the following: White, Latinx, Black or African American, American Indian and Alaska Native, Asian, Native American or Other Pacific Islander, and Two or More Races or Multiracial (U.S. Department of Commerce, 2019).

Children with discernable physical features that set the apart from other peers are thought to be easier victims of peer harassment and aggression (Bucchianeri et al., 2016). Although the United States has a more diverse population than ever before, differing ethnic majority and minority groups are still at an increased risk for bullying perpetration (Census, 2021; Mishna et al., 2020). This is especially true of ethnic majority and minority groups who appear different to peers in regard to skin color, clothing, accents, etiquette, routine, etc (Vitoroulis & Vaillancourt, 2015). In a large study of Midwestern adolescents, White teenagers disclosed a considerably reduced amount of race-based victimization (4.8%) in comparison to Black/African American (24.8%) Asian/Pacific Islander (24. 2%), Latinx (21.5%), Mixed/Mixed/Another race (18.9%), and Native American (18.6%) (Bucchianeri et al., 2016).

The steep increase in bullying perpetration among students of color could be attributed to what is known as "in-group favoritism." Victoroulsi and Vailancourt (2015) describe this as when, "people derive a sense of identity and hold a positive perception of the group they belong to (in-group) but are biased

toward out-group members" (2015). Children are inclined to choose peers who are of the same race and ethnicity because of similar cultural environments, beliefs, and resemblance to themselves when children begin to form friendships. Children are inclined to exhibit a negative approach and discrimination to children in racial and ethnic out-groups in order to preserve their sense of security within their in-groups (Vitoroulis & Vaillancourt, 2015).

Racial and ethnic-based harassment is a huge factor in children's detrimental perceptions about their school environment. Children who are Black/African American were more likely than any other race to perceive school as an unsafe place due to the likelihood of bullying travelling to, from, and at school (Shelly et al., 2021). Self- and peer-identified victims (Black or Latinx, Native American, Asian, or Other) reported decreased sense of school belonging as well as feelings of anxiety and distress when participating in class, which correlates to a higher amount of peer victimization in these victims (Dawes et al., 2017). In contrast, it was determined through a large study composed of African American, Asian, Latinx and White middle-schoolers that students felt less lonely, less bullied, and safer at school as the ethnic diversity expanded and increased (Juvonen et al., 2018).

Children of racial and ethnic minorities are less likely to report being a victim of bullying in schools, although they believe that bullying is an increasing and serious public social issue in general (Shelly et al., 2021), African American and Latinx students have a smaller chance of disclosing both electronic and in-person school bullying perpetration than White students (Webb et al., 2020). The reason for the significant amount of underreporting peer victimization of African American ethnic groups is likely due to racial detriments learned through childhood of defending cultural values such as interpersonal aggression (Shelley et al., 2021).

Being a part of a vulnerable ethnic majority or minority groups could also be a risk factor for becoming a bullying perpetrator. It was found in a study that Latinx children were more apt to bully others children rather than White students (Matthias et al., 2021). In a study of Latinx girls, 37% of adolescent girls said they had bullied others at least once before (Smith et al., 2020). Additionally,

African American children had a notably more positive reaction towards peer victimization and physical types of bullying were more prevalent within non-White adolescents (Espelage et al., 2017).

Family Factors and Bullying

Adverse childhood experiences (ACEs) and little parental/guardian support of children has been proven to have damaging effects on children and adolescents. Potential adverse childhood experiences include anything that could cause trauma or effect the wellbeing of children aged 0-17 years and are risk factors for negative health outcomes that could emerge throughout the child's life, such as diabetes, respiratory problems, cancer, heart disease, mental health issues, smoking, eating disorders, and substance and alcohol abuse (CDC, 2021; Hoover & Kaufman, 2018). ACEs could be events such as being raised in a household environment where substance, alcohol, and mental health problems are prevalent, being victim of neglect, abuse, or violence, witnessing violence, having a member of the family attempt or die by suicide, or living in an unstable environment due to divorce or household members incarcerated (CDC, 2021).

ACEs and family environments play an immense role in predicting childhood outcomes and bullying in ASD and ethnic majority/minority children. Children with ASD are at a higher risk of ACEs and suicidal thoughts (Hoover & Kaufman, 2018). Due to ACEs, children with ASD could be diagnosed later, not begin treatment as soon, have an elevated risk of mental health issues, and be bullied more than children without ASD (Hoover & Kaufman, 2018). Research literature shows that Black/African American children live in more metropolitan neighborhoods where there is increased violence, crime, poverty, household problems, and unemployment which in turn reflects on the increased violence and bullying perpetration within these areas (Shelly et al., 2021). These disadvantaged areas have the most issues with bullying and victimization in school over any other racial ethnic group (Shelly et al., 2021). African American and White children are less expected to be victims of bullying when expressing contentment within their families (Hong et al., 2020). White children who conveyed satisfaction were less likely to become bullying perpetrators in school (Hong et al., 2020).

Family support, parental supervision, and monitoring is crucial to diminish bullying perpetration in ASD and diverse children. These protective factors have been found to decrease the risk of peer victimization through family communication, affection, and guardian involvement (Hong et al., 2020). Positive communication from parents may benefit children by encouraging them to talk more openly about internalizing problems they may be facing from victimization experiences (Smith et al., 2020). Monitoring by mothers was associated with decreased bullying in White and African American children, while monitoring by father's was associated with decreased bullying in White's only (Hong et al., 2020). In a study with children with ASD, the incidence of mental health issues decreased when parental figures gave more frequent technology mediation and family support (Wright, 2017). Further, children with ASD were left more vulnerable to higher amounts of bullying and mental health disorders with lower levels of parental figure support and social mediation (Wright, 2017). Parents with high ACEs scores are less inclined to advocate and intervene when their child is being victimized by bullying (Hoover & Kaufman, 2018).

Parents of children with ASD and ethnically diverse children view bullying as a personal and social responsibility that differs among various groups. Qualitative reports of ethnically diverse parents concluded that they believed bullying was an inevitable social problem that was disproportionate based upon ethnicity, gender, socioeconomic status, appearance, disability, race, sexuality (Mishna et al., 2020). Parental perceptions of bullying victimization can be based on prejudice and inequalities of children such as "being weird or different," "how they dress or smartness" (Mishna et al., 2020).

Discussion

The main takeaway of this extended literature review focuses on disproportionately elevated bullying behavior towards or from children with ASD with diverse ethnicities. Children with a developmental delay, particularly the neurodevelopmental condition autism spectrum disorder, experience bullying victimization at an extremely significant rate compared to typically developed peers (Forrest et al 2019). This is attributed to risk factors children with ASD possess such as mental health issues, detrimental self-concept, impaired social skills, inadequate emotional control, deficiency of ability to

comprehend social situations, and lack of inability to relate to peers' feelings (Matthias et al, 2021). Children with ASD are at risk for developing mental health problems associated with peer victimization and are likely to not attend school due to bullying (McClemont et al., 2020). Additionally, children with ASD have been found to be bullying perpetrators because of the likelihood of aggressive social reactions and lack of empathy in peer relationships (Forrest et al, 2019).

Compared to White people, distinct racial and ethnic groups have been known to endure higher amounts of bullying victimization, including Black/African American, Asian/Pacific Islander, Latinx, Mixed Race and Native American (Bucchianeri et al., 2016). "In-group favoritism," specified as when members of a group discriminate against peers outside of the group in order to feel a sense of security, could explain the disparity among victimization and ethnicity (Vitoroulis & Vaillancourt, 2015). Members of minority ethnic and racial groups are more probable than majority ethnic groups to view bullying as a serious social problem in school (Shelly et al., 2021). In turn, these susceptible populations become more absent at school due to fear of peer victimization and underreport bullying perpetration because of learned cultural values (Shelly et al., 2021).

Adverse childhood experiences, or anything that could cause trauma to a child under 17 years old that may have lasting health outcomes, is found to be increased in children with ASD and minority ethnic groups (Hoover & Kaufman, 2018). Likewise, ACEs is a significant risk factor for children developing bullying perpetrator issues and being the victim of bullying (Shelly et al., 2021). Consistent parental monitoring, support, and healthy communication is a protective factor in preventing children from mental health problems and bullying victimization (Wright, 2017). Parent perceptions of bullying include a personal responsibility in prohibiting adverse outcomes in children due to bullying and that the object of victimization is usually someone who is markedly different from other children. (Mishna et al., 2020)

The leading limitation of this review is the overall intricacy of the topic at hand. It is difficult to assess specific viewpoints through explicitly quantitative research, thus various studies feature qualitative data regarding concepts of bullying when studying children and family perspectives. Underreporting of victimization experiences and parental mediation from self-report studies could be reflected in the data

due to social acceptance and lack of knowledge. There could have been varying levels of school, parental and peer support within the diverse United States schools and communities, which could have altered findings from the analyzed articles. More comprehensive samples of ASD and ethnic diversity of school-aged children is needed to fully analyze the association between the variables discussed.

The main gap in the literature of this analysis is the lack of recent research about peer victimization in majority/minority ethnicities, especially American Indian or Alaska Native, Asian or Pacific Islander, and multiethnic communities. Additionally, a deficiency of research pertaining to the intersectionality between bullying in various ethnicities and developmentally delayed children is also present. Further research is needed to fully understand the personal perceptions and viewpoints about victimization from family figures and children within these populations.

Ramifications of this literature review establishes the need for researchers to further examine the correlation that bullying perpetration has on diverse ethnicities and children with ASD. By aiming research toward finding interventions to improve social skills and interactions of children with ASD, the amount of bullying victimization could decline and overall health outcomes across the lifespan could be improved. Victimization prevention programs should be developed with specific aims at assisting these sensitive populations. Building bullying awareness and creating specific school-based policies about victimization directed at parents, peers, teachers, faculty, and children of diverse ethnicities and ASD could have improved education, mental, and peer outcomes. Healthcare professionals could help serve these populations by implementing earlier harassment and ACEs screening practices, establishing positive communication with parents, schools, and teachers regarding children's victimization experiences, as well as develop plans of actions to help with bullying coping strategies.

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Appendix A: Evidence Table

Authors, Year, Country where research conducted	Independent or Treatment Variable(s)	Dependent or Outcome Variable(s)	Research Design	Sample Method (N=)	Data Collection Process	Brief Summary of Results	Strength of evidence (Level)
Adams, R. E., Taylor, J. L., & Bishop, S. L., 2020, US	Behavioral problems in children with ASD	Logistical regression of four types of peer victimization: Verbal victimization, physical victimization, ignoring, and provoking	Case-control study	279 parent participants	Parents of children with ASD web-surveyed through 63 item report about child's school issues, experiences, and ASD behavior problems.	Girls (verbal, ignored), older adolescents (ignored, provoked) children who have frequent meltdowns (physical, provoked), poor hygiene, self-injury and strict rule keeping (verbal, provoked) have an increased risk of negative peer experiences in school.	IV
Bucchianeri, M. M., Gower, A. L., McMorris, B. J., & Eisenberg, M. E. 2016, US	Adolescent demographic opinions	Measures of prejudiced-based harassment (race, sexual orientation weight/appearance, disability, gender)	Case-control study	162,034 adolescent participants	Self-report survey of Midwestern adolescents' grades 5-11 to assess prevalence of harassment experiences	Harassment was more prevalent among students of color, students with one or more disability, LGBTQ students, overweight/obese students, and females.	IV
Dawes, M., Chen, C. - C., Farmer, T. W., & Hamm, J.	Self and peer-reports of victimization of 5th graders	Perceptions of bullying ecology, academic ecology, sense of school belonging,	Cluster randomized control trial	1360 5th grade participants	Randomization of participants into intervention	Peer and self-identified victims had a decreased feeling of belonging in	I

V. 2017, USA		feelings of school value			or control condition. Victimization and perceptions measured	school and greater emotional risk through class participation	
Espelage, D. L., Hong, J. S., Kim, D. H., & Nan, L. 2017, USA	Demographics including race/ethnicity, age, gender	Measures of bullying perpetration, peer victimization, empathetic concern, perspective-taking, positive attitude towards bullying and theory of mind	Case control study	310 Midwestern middle school student participants	Middle school student survey that assessed perspective-taking, bullying attitudes, empathetic concern, and theory-of-mind	African American had a higher rate of non-physical bullying perpetration; positive attitude towards bullying relates to non-physical bully perpetration and students were less likely to perpetrate when perspective-taking (empathy)	IV
Fisher, M. H., & Taylor, J. L. 2016, USA	Older adolescents with ASD	Peer victimization experiences and perceptions	Conventional qualitative content analysis	30 diagnosed Children with ASD	Qualitative investigation of adolescent individuals with ASD pertaining to types of victimization, reasons for bullying, and reactions to victimization	Extremely high prevalence all types of bullying (73%), placing blame on their own attributes for bullying, blaming perpetrators, reactions common like ignoring or attempting/desiring to retaliate against perpetrators	V
Forrest, D. L., Kroeger, R. A., & Stroope, S. 2019, USA	6 subscales from the CSBQ (Children's Social Behavior Questionnaire) parent questionnaire	Bullying victimization of children aged 6-17 with ASD, developmental delay, or intellectual delay	Case control study	1057 parental figures of ASD-diagnosed children	Self-administered 49-item questionnaire to parents of children with ASD measuring	Children are at a greater risk of being subjected to bullying victimization if resistant to change, and not being optimally	IV

					differential behavior dimensions	tuned to into the social situation at hand	
Hodgins, Z., Kelley, E., Kloosterman, P., Hall, L., Hudson, C. C., Furlano, R., & Craig, W. 2018, US	Real-life bullying clips including physical, social, and taking one's procession's	Understanding of bullying perceptions in ASD and TD adolescents	Qualitative study	68 adolescents. 29 ASD-diagnosed males and 39 typically developed adolescent males	Surveying variance between typically developed adolescents and adolescents with ASD's perceptions of bullying understanding after video clips of bullying situations	Children with ASD had a very low bullying perception scores as opposed to typically developed adolescents	V
Hong, J. S., Ryou, B., & Piquero, A. R. 2017, USA	Parental/guardian support, mother's parental monitoring, father's parental monitoring, and family satisfaction	Peer victimization and bully perpetration reports	Cross-sectional study	6,521 students aged 1, 13, 15	Anonymous elf-report questionnaire by early adolescents inferring about family-level protective factors within African American and European American ethnicities	Adolescents who get more parental support, regardless of race, have a decreased change to report bullying; maternal monitoring decreases bullying perpetration and victimization; youth reporting family satisfaction has decreased bullying incidence	IV
Hoover, D. W., & Kaufman, J. 2018, US	Children with ASD	Adverse childhood experiences and	Consensus opinion	N= not given	Review over children with ASD, ACES, child maltreatment,	Adverse childhood experiences are increased in families	VII

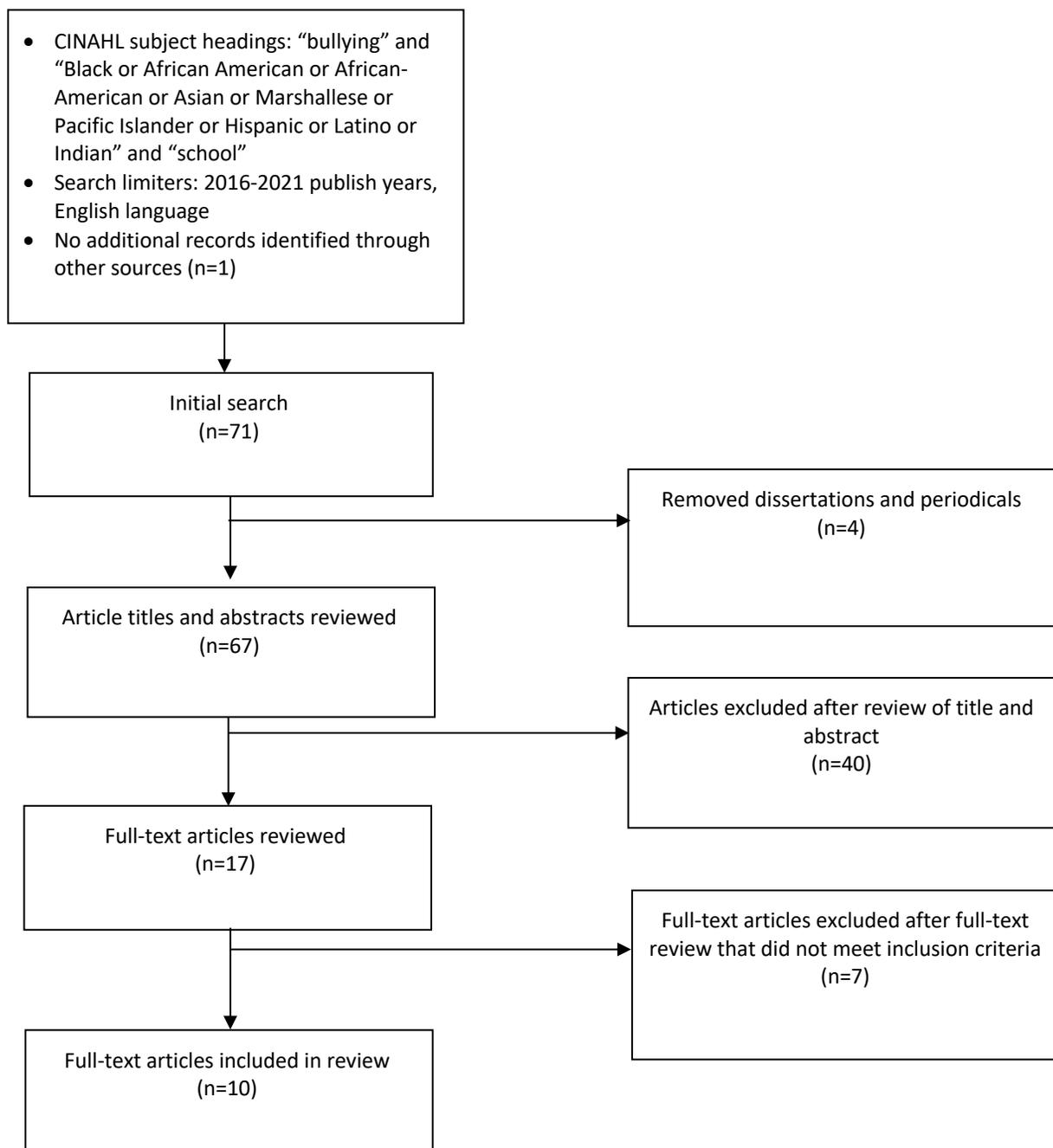|							
		childhood maltreatment			and trauma-focused cognitive behavior therapy (TF-CBT)	(especially parental divorce and insufficient income) of children with ASD, which is associated with later diagnosis and early treatment in ASD youth	
Juvonen, J., Kogachi, K., & Graham, S. 2017, US	School ethnic diversity, average core class diversity, individual-level covariates, parent education, teacher-rated academic engagement	Measures of perceived school safety, self-perceived peer victimization, loneliness, perceptions of teachers' fair and equal treatment, ethnic out-group distance	Cohort study	4,302 sixth grade adolescent students from ethnic diverse middle school within California part of middle SES	Group administered survey to adolescents with corresponding survey booklets to find two-level multi-level models; the first model being effects of school-level diversity, and the second model being effect of individual-level diversity exposure in class and school interaction.	Ethnically diverse school groups (African American, Latinx, Asian, and White) were correlated with a lower sense of vulnerability (less lonely and victimized, feel safer) and perceptions of teachers' equal and fair treatment to these ethnic group.	IV
Matthias, C., LaVelle, J. M., Johnson, D. R., Wu, Y. -C., & Thurlow, M. L. (2021)	Measures of demographic characteristic and parent/household characteristics, communication skill, social skills (ability to make	Bullying behavior and victimization through 7 dichotomous student response items	Case control study	470 students aged 11-22 with and without ASD	Chi-square tests used to identify significant statistical differences through a NLTS computer-	ASD students have more difficulty using social skills and communication, less robust sense of self and ability than non-disabled students. There	IV

					assisted surveys of both children with ASD and children without ASD	was an association of higher perpetration rates in ASD of different race, SES, lower self-concept and social skills.	
McClemont, A. J., Morton, H. E., Gillis, J. M., & Romanczyk, R. G. (2020).	ASD and ADHD diagnosis, child characteristic, demographic variables, and various school factors	Reports of likelihood of school refusal due to bullying and victimization	Case control study	97 parents of 154 children with ASD ADHD, ASD + ADHD, other diagnosis or none	Online survey administered to parents. Multilevel model was used to examine predictors of school refusal in children.	Children having ASD and ADHD were more likely to refuse going to school (68%) due to bullying over children with ASD (28%) no ASD or ADHD diagnosis (18%).	IV
Mishna, F., Sanders, J. E., McNeil, S., Fearing, G., & Kalenteridis, K. (2020)	Demographic variables of students, parents, and teachers	Perspectives about characteristics of bullying and responsibility of bullying	Qualitative analysis of mixed methods study	Year one: 57 students 51 parents, 30 teachers Year three: 43 students, 29 parents	Qualitative semi-structured interview surveys perspectives of bullying among students, teachers, and parents.	Parents, teachers and students recognize that perpetration targets specific groups based upon gender, sexuality, class and ethnicity; it is also found these participants believe perpetration is commonly minimized, normalized, and inevitable to students.	VI
Pfeffer, R. D. (2016)	Certain demographic variables such as child age, gender, ethnicity, number of siblings, measures of SES, character of local	Frequency and type of child victimization	Cohort study	Parents/caregivers of 262 children aged 5-18 with ASD	Online survey through demographic questionnaire, juvenile victimization questionnaire (JVQ), and open-ended	More than 4/5 Children with ASD experienced bullying more than once within the last year (92%); 89% have experienced victimization	IV

	residence, ASD diagnoses, verbal ability, independence level, peer contact				component about child with ASD and his or her specific experience related to victimization	throughout their lifetime; Children with ASD who have experienced Poly victimization have an increased chance of being further victimized	
Rodriguez, G., Drastal, K., & Hartley, S. L. (2020)	Children characteristics and sociodemographic: gender, DOB, autism symptoms severity, youth mental health problems	Various scales of victimization (none, some, high)	Cohort study	187 mothers of diagnosed children with ASD aged 5-12	Individual survey to find association between bullying perpetration and mental health outcomes in youth with ASD	Youths with ASD experienced more bullying perpetration if they were older adolescents, increased levels of internalizing and externalizing his or her mental health problems, and/or manifested more autistic symptoms	IV
Shelley, W. W., Pickett, J. T., Mancini, C., McDougle, R. D., Rissler, G., & Cleary, H. 2017, US	Participant demographics: race, gender, age, education level, income, political ideology, party identification, parenteral status, employment in public school system, urbanicity	Measure of participants judgement about safety level in primary/secondary schools; perception of bullying severity within schools	Qualitative metanalysis	N=not found	Telephone surveys conducted to adults in Virginia aged18+ and analyzed through ordinary least squares regression and 4-point ordinal variables to assess the perception of bullying severity and school safety	Blacks are more likely than other ethnic group to believe that bullying is increasing in prevalence which has an association with perceiving school as less safe. All public members of various ethnic groups perceive bullying a threat to the safety of all students.	IV
Smith, A. U., & Norris, A. E. 2018, US	Parent communication about bullying and perpetrator	Hispanic/Latina adolescent girls reported bullying experiences	Cross-sectional survey	164 Hispanic/Latina origin parents and 164 early	Two studies analyzed together surveying	56% of Hispanic girls reported peer victimization and 37% report	IV

		experiences within Hispanic/Latina families			adolescent (7th grade) daughters in South Florida	Hispanic parents about communication with child pertaining to bullying, and Hispanic and Hispanic girls surveying bullying and victimization experiences	being a perpetrator to bullying. Most common type of victimization is verbal/emotional (36%). 95% of Hispanic parents agreed that they have previously discussed bullying perpetrations and how to handle bullies	
Vitoroulis, I., & Vaillancourt, T. 2015, US	Ethnic majority and minority youth samples	Youth experiences of bullying victimization through bullying and aggression measures and dichotomous and frequency and response scales	Metanalysis	692,548 children and adolescents aged 6-18 years	105 studies included in analysis to find peer victimization differences within majority and minority ethnic groups	Statistical significance between White and Black, Hispanic, Asian, Aboriginal and Biracial students in peer victimization; ethnic minorities are more likely not to report peer victimization	I
Webb, L., Clary, L. K., Johnson, R. M., & Mendelson, T. 2020, US	National samples of racial/ethnic and sexual minority youth	Reports of bullying victimization (electronic and school) and covariates (to assess adolescent screen time)	Cross-sectional study	30,389 high school participants	Self-report survey of high school sexual racial/ethnic minority students measuring prevalence of bullying victimization within these demographic	15% of sexual and racial/ethnic minority students reported cyberbullying; 20 % reported school bullying; Black and Latinx students have decreased tendency to report electronic and school bullying	IV
Wright, M. F. 2017, US	Adolescents with diagnosed ASD	Perceived perceptions of face-to-face victimization,	Case-control study	113 ASD adolescents within 7-9th grade	Two questionaries were given one year apart	Negative association of depression and cyber	IV

		cyber victimization, perceived social support, parental mediation of technology use, depression			to assess levels and types of victimization, parental support and mediation, and depression	victimization with an increase of technology mediation and support from parents	

Appendix B: Selection Process of Included Studies First Search

- CINAHL subject headings: "bullying" and "Black or African American or African-American or Asian or Marshallese or Pacific Islander or Hispanic or Latino or Indian" and "school"
- Search limiters: 2016-2021 publish years, English language
- No additional records identified through other sources (n=1)

Initial search
(n=71)

Removed dissertations and periodicals
(n=4)

Article titles and abstracts reviewed
(n=67)

Articles excluded after review of title and abstract
(n=40)

Full-text articles reviewed
(n=17)

Full-text articles excluded after full-text review that did not meet inclusion criteria
(n=7)

Full-text articles included in review
(n=10)

Appendix C: Selection Process of Included Studies Second Search