



## Using Athletics to Mitigate the Negative Relational Outcomes Bullying Has on Youth with Disabilities

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*Studies demonstrate middle and high school students with disabilities are more likely to experience bullying than other student groups. The high rates of bullying victimization observed among youth with disabilities can result in severe socio-emotional consequences. These socio-emotional consequences often manifest in detrimental impacts on the students' personal relationships. Past studies indicate participating in extracurricular athletic activities can have several socio-emotional benefits for students with disabilities. Given the findings of past studies demonstrating the positive relationship between mental health and participation in sports among students with disabilities, it is possible participating in athletics could have a moderating relationship on the severity of the impact bullying has on a student's relationships with family and friends. Using the National Crime Victimization Survey/School Crime Supplement (NCVS/SCS), this study employs an ordinal logistic regression to determine if participation in extracurricular athletic activities mitigates the damaging impact bullying has on the personal relationships with friends and family among students who have disabilities. This study identified statistically significant results suggesting students with disabilities who participate in athletics reported reduced levels of negative personal relationships resulting from bullying compared to their peers who did not participate in athletics.*

*Keywords: special education, disabilities, bullying, regression, sport, athletics*

**T**he U.S. Department of Justice (2015) estimates approximately 5.0 million bullying cases filed among students 12 and older during the 2013 to 2014 school year. Studies show middle school and high school students who have disabilities are more vulnerable to victimization from bullying than other marginalized or minority student populations (Forber-Pratt et al., 2021; Rose et al., 2015). Several past studies indicate being a victim of bullying can

have severe emotional and psychological consequences that impact students' relationships with their family and friends, as well as lead to anxiety, depression, and poor academic outcomes (Halliday et al., 2021; Nocentini et al., 2019). Since students with disabilities are more susceptible to being bullied than other student populations (Rose et al., 2015), educators and researchers must explore methods that could assist in mitigating the adverse relational outcomes associated with being a victim of bullying. The negative impact of bullying on students with disabilities could be influenced by extracurricular activity participation, which is frequently linked to academic and social benefits for children (Pomohaci & Sopa, 2017).

For adolescents with disabilities, extracurricular athletic activities have several psychological and socio-emotional benefits, such as better mental health and emotional regulation (Eime et al., 2013; Kim, 2019; Schaefer et al., 2011). Due to the socio-emotional benefits obtained from being included in school-based extracurricular activities, it is possible that participation in extracurricular athletic activities among students with disabilities can directly impact their personal relationships with family and friends. To explore the moderating relationship of athletic extracurricular activity participation and students with disabilities, this study utilizes the National Crime Victimization Survey – School Crime Supplement (NCVS/SCS) to determine if participating in athletic activities influenced the impact of bullying had on the student's relationships with their family and friends. Implications for future research and practice are also discussed.

## Literature Review

### Defining Disabilities

Individuals can have wide-ranging disabilities that impact them intellectually, physically, psychiatrically, developmentally, or any combination of areas (Bills, 2017; Yamatani et al., 2015). The Americans with Disabilities Act (ADA) (1990) operationally defines persons with disabilities as “A person who has a physical or mental impairment that substantially limits one or more major life activity” (ADA, 1990, section 3). Individuals in school who fall within this definition and where it negatively impacts school performance are provided with individualized education programs (IEPs) through special education. These programs target the child's specific needs while including the child in the least restrictive environment (Chan, 2016; Gavish, 2017; Hornby, 2015). They are designed to provide the additional academic or other necessary support the student needs to succeed with their grade-level peers. Individualized Education Plans may include modifications to instruction or accommodations in assessment requirements to support the needs of the individual. Unfortunately, qualifying for special education can result in students with disabilities experiencing higher rates of bullying than their non-disabled peers (Dupper, 2013; Rose et al., 2015).

### Defining Bullying

While different definitions exist for bullying, the Center for Disease Control and Prevention (CDC) defines bullying as: “any unwanted aggressive behavior(s) by another youth or group of youths who are not siblings or current dating partners that involves a real or perceived power imbalance and is repeated multiple times or is highly likely to be repeated” (Gladden et al., 2014, p.7). The Department of Education identifies four different categories

through which bullying can be perpetrated. These categories include: (a) verbal, (b) physical, (c) indirect, and (d) sexual remarks and/or acts (Cornell & Limber, 2015). Within these four categories, bullying can occur in various forms, including verbal harassment, name-calling, physical gestures, physical attacks, and unsolicited electronic/cyber communication (Bradshaw et al., 2015). It is also important to note the CDC (Preventing Bullying, 2019) reports that 1 in every five high school students reports being bullied on school property within a 12-month timeframe.

### **Consequences of Bullying Victimization**

Bullying victimization manifests in several socio-emotional facets of a student's life. When explicitly assessing the psychological consequences caused by bullying, bullying victimization can lead to anxiety, depression, self-harm, and suicidal ideation (Forber-Pratt et al., 2021; Halliday et al., 2021). Bullying has also been linked to decreased feelings of school connectedness among victims (Forber-Pratt, 2021). Many of these psychological bruises negatively impact students' social relationships with their family and peers leading to decreased quality of relationships both in the short and long-term (Halliday et al., 2021; Kahn & Lindstrom, 2015). The lasting impact of bullying can also result in financial and work-related problems and the risk of re-victimization in adulthood (Brendgen & Poulin, 2018; Copeland et al., 2013; Wolke et al., 2013). These findings hold especially true among underrepresented populations who experience bullying victimization at a greater magnitude, such as students with disabilities.

### **Bullying Victimization and Disabilities**

Bullying victimization rates are more prevalent among minority groups; however, they are not equal across demographic groups. Compared to other populations, k-12 students with disabilities are at a higher risk of experiencing bullying than any other underrepresented population (Farmer et al., 2012; Hicks et al., 2018; Rose et al., 2015). The Farmer study examines 5th graders across the US and found that females with disabilities are 4.8 times more likely to be bullied, and males with disabilities are 3.2 times more likely to be bullied than students who do not have a disability. Supporting these results, Rose et al., (2015) also indicated middle school and high school students with disabilities were two times more likely to be bullied than other student populations. Peguero (2008) found males are more likely to be bullied among all students and that Hispanic/Latino and Black students were less likely to report being the victim of bullying.

Higher bullying victimization rates among students with disabilities often occur due to having communication deficits, delayed social skills, emotional regulation difficulties, social isolation, and being portrayed as "different" (Blake et al., 2012). Due to their differences, students with disabilities are less likely to be included in social groups and activities (Blake et al., 2012; Cumming et al., 2017; Halliday et al., 2021). Being excluded from social experiences makes students with disabilities more prone to having unhealthy relationships with their families and peers (Halliday et al., 2021; Kahn & Lindstrom, 2015). Rose et al. (2015) also found that for students with disabilities, having a larger peer social support was the most significant predictor of decreased victimization.

### **Socio-Emotional Benefits of Athletic Extracurricular Activities**

Participating in extracurricular activities positively impacts students across all populations (Eime et al., 2013; Pomohaci & Sopa, 2017). The benefits of participation include increased self-esteem, increased school involvement, and academic achievement (Palmer et al., 2017; Pomohaci & Sopa, 2017). When examining students who have disabilities, studies indicate several social and health benefits acquired from participating in extracurricular athletic activities, including promoting the continuation of current friendships while increasing the frequency of building new positive relationships (Bills, 2020; Pomohaci & Sopa, 2017; Schaefer et al., 2011). Rose and colleagues (2015) found extracurricular participation significantly influences increasing peer social support. Considering the positive social outcomes gained from extracurricular activities, it is possible that participating in athletics can also mitigate the magnitude of the adverse effects derived from being a victim of bullying among students who have disabilities.

### **Athletic Extracurricular Activities and Disabilities**

In a study conducted by Brooks et al., (2015), students with intellectual or learning disabilities demonstrated an increase in social competence in their classroom and home life when they were members of an athletic team or extracurricular activity. Students with disabilities who have an increased level of social competence are more likely to report having healthier relationships (Brooks et al.). Pomohaci and Sopa (2017) found that for students identified as marginalized, including individuals with disabilities, participating in extracurricular activities led to increased feelings of social integration into the social group, increased socialization, and an improved sense of cohesion in school. These findings emphasize how extracurricular activity involvement is critical to students' foundation with disabilities formulating more beneficial relationships with their parents and classmates. Given these findings, educators must determine if the inclusion of students with disabilities in extracurricular athletic activities can mitigate the negative relationship consequences due to bullying victimization.

### **Current Studies on Extracurricular Activities and Bullying**

While Peguero (2008) examines the different types of extracurricular activities students participate in; the present study specifically focuses on the impact of athletic extracurricular participation on bullying for students with disabilities. Peguero found students who participate in three or more classroom-related extracurricular activities and students who participate in one or more intramural sports activities are more likely to report being the victims of bullying. However, in a more recent study using the National Survey of Child's Health, Haegele et al., (2020) found conflicting results demonstrating that children with disabilities who participate in extracurricular activities experience less bullying than students who do not participate in extracurricular activities. The present study explicitly examines athletic extracurricular participation to determine if Peguero's (2008) and Haegele et al., (2020) conflicting results can be concluded using a different national representative dataset.

## Method

*R1: Does extracurricular activity involvement lessen the impact that bullying has on personal relationships among adolescents with disabilities?*

This study used a cross-sectional approach to analyze participants in the most recent wave of the National Crime Victimization Survey/School Crime Supplement (NCVS/SCS) longitudinal and nationally representative study from 2015. This wave contains data on adolescents and teenagers from the 2014-2015 school year. To focus on students with disabilities, the sample was restricted to middle school and high school students who were classified as having a disability based on whether or not the student had an Individualized Education Program (IEP) or not. This sample included individuals with physical, intellectual, and cognitive disabilities. It is hypothesized that extracurricular activity involvement will mitigate the negative effects bullying has on personal relationships.

### Sample Demographics

The sample contained 728 eligible students identified as having a disability ( $N = 728$ ) and were on the diploma track for graduation. Disability was measured dichotomously (yes/no). The participants' ages ranged from 12-18. The gender representation of the sample was male (62%) and female (38%). Ethnicity demographics of the sample included (19%) who identified as Hispanic/Latino/a and (81%) who did not. The racial demographics of the sample were White (80%), Black (13%), Asian (3%), Native American (1%), Native Hawaiian/Island Pacifier (0.4%), and two or more races (1.6%).

### Measures

#### *Independent Variable*

In the NCVS/SCS, participants were asked closed-ended survey questions related to student demographics, athletic extracurricular activity participation, and the negative impacts bullying had on their relationships with family and friends. The independent variable of interest was dichotomous (yes/no) to determine if the participants were involved in extracurricular athletic activities.

#### *Dependent Variable*

Using an ordinal Likert-scale, the dependent variable in this study was the impact of bullying on the student's relationship with family and friends. For this variable, students were asked, "How much has the bullying negatively impacted your relationships with family and friends?" Answer choices ranged from 0 to 3 (0 = Not at all, 1 = Not very much, 2 = Somewhat, 3 = A lot).

### *Additional Control Variables*

Control variables included age, gender, ethnicity, and race. Age was applied as a continuous variable ranging from 12 to 18 years old. Gender was a dichotomous variable in which participants were classified as either male or female. Ethnicity was a dichotomous variable in which participants identified themselves as Hispanic/Latino/a or not Hispanic/Latino/a. Race was a categorical variable in which participants identified as White, Black, Asian, Native American, Pacific Islander, or two or more races.

Due to small cell counts, racial demographics could not be analyzed using the six original categories included in the dataset. To ensure assumptions were not violated due to small cell counts, the race variable was collapsed to Caucasian and Persons of Color. Persons of Color included Black, Asian, Hispanic, Pacific Islander, Native American, and individuals identified as multi-racial.

### **Analysis**

An ordinal logistic regression model was applied to analyze the direct relationship between participating in extracurricular athletic activities, and the level of impact bullying had on the participant's relationships with family and friends. The demographic control variables were also included in the regression model. Since this study was exploratory, the ordinal logistic regression and the overall model fit were tested for statistical significance using a significance level of  $p < .05$  (Cohen, 1968). A test of parallel lines was regressions to determine if the regression models met proportional odds assumptions. The test of parallel lines met the assumption of proportional odds ( $\chi^2(12) = 19.944, p = .068$ ).

## **Results**

### **Logistic Regression Model: Bullying Impact on Relationships with Family and Friends**

Independent variables in the model included extracurricular athletic involvement, gender, race, ethnicity, and age. The outcome variable was the level of negative impact bullying had on the student's friendships. Results of the overall model were statistically significant ( $\chi^2(6) = 17.223, p = .008$ ) (See Table 1). The test of parallel lines met the assumption of proportional odds ( $\chi^2(12) = 19.944, p = .068$ ). Meaning that assumptions were not violated because the parameters across all responses were reasonable (Williams, 2016).

### *Athletic Extracurricular Activities*

When examining the impacts bullying had on the students' relationships with family and friends. The results indicated that students who participated in extracurricular athletic activities were more likely to have lower scores on the negative impact on the friendships scale ( $\chi^2(1) = 6.914, p = .009$ ). This result indicates students who did not participate in athletics were more likely to report that being a victim of bullying had a more significant impact on their relationships with friends and family than students who were involved in athletics. Students who did not participate in athletics were 1.62 times more likely to report that bullying had a more significant negative impact on their relationships than students who participated in athletics (OR = 1.619, 95% CI, 1.130 to 2.313) (See Table 1).

### *Other Control Variables*

Other statistically significant relationships with the negative personal relationship outcomes faced by students who are bullied included gender ( $\chi^2(1) = 4.057, p = .044$ ) and ethnicity ( $\chi^2(1) = 5.271, p = .022$ ). Controlling variables that did not have statistical significance included age and race (See Table 1). Meaning, that gender, and ethnicity had a significant relationship between bullying victimization and personal relationship outcomes, while age and race did not.

### **Discussion**

Students who have disabilities experience marginalization and have increased susceptibility to bullying victimization and the adverse outcomes derived from being a victim of bullying (Farmer et al., 2012; Rose et al., 2015). Since extracurricular athletic activities prove to increase psychological health among all students who have disabilities (Peguero, 2008; Schaefer et al., 2011), it was predicted that extracurricular athletic activities would also diminish the negative consequences bullying had on the student's relationships with friends and family. The findings of this analysis add to past studies by demonstrating the power of athletic extracurricular participation to reduce the negative impact that bullying had on relationships with friends and families among students with disabilities.

A statistically significant relationship was observed between extracurricular athletic involvement, and the harmful impact bullying had on the participant's relationships with their family and friends. This result allowed the null hypothesis to be rejected for the binary logistic regression model.

Results indicated that the students who participated in athletics were less likely to report negative outcome scores in comparison to the students who did not participate in athletics. In fact, students with disabilities who were involved in sports were twice as likely to answer "not at all" when asked if the bullying victimization hurt their relationships with friends and family. This finding indicates that victimization from bullying had less of a detrimental effect on the student's relationships if they were involved in athletics compared to students who were not involved in athletics.

### **Limitations**

For better results, including students without disabilities would have strengthened the analysis. Due to missing data, students without disabilities could not be included in the study. Otherwise, the test for parallel lines would have been violated due to the disproportion between students with disabilities and students without disabilities in the sample (Williams, 2016). Additionally, the different disability categories were not differentiated in this dataset. Thus, making it difficult for generalization across all disability populations. Different disability types may result in different experiences with bullying or limitations in an individual's ability to participate in athletics; thus, these categories must be differentiated in future studies.

## Conclusion and Future Directions

Overall, extracurricular athletic activities were demonstrated to reduce the negative outcomes bullying victimization had on the student's relationships with family and friends. It is crucial that educators, social workers, and disability researchers continue investigating the impacts extracurricular activities have on students with special needs to further advocate for more inclusive extracurricular activities being offered in the community and school settings.

### Implications for Practice

Although the promotion of inclusive athletic extracurricular activities is a growing trend among the disability community, students with disabilities are still limited in extracurricular options due to the lack of accessibility inside schools and outside of school (Blake et al., 2012; Cumming et al., 2017; Rose et al., 2015). For example, very few schools offer athletics that accommodate students with disabilities (Rose et al., 2015). While schools are required to provide all students with physical education as part of their education, school-based athletics are not always inclusive for students with disabilities (Bills, 2017; Murphy & Carbone, 2008). This situation means that students with disabilities are forced to find extracurricular activities outside of their school to participate in them, but this process can be highly challenging for families due to the costs of participation and the lack of nearby facilities (Murphy & Carbone, 2008; Starr, 2015).

The findings of this analysis support past research: there remains a need for parents and education professionals to advocate for more inclusive extracurricular activities that accommodate students who have disabilities. As students with disabilities are four times more likely to experience bullying victimization and the negative consequences associated (Farmer et al., 2012), educators, social workers, and disability researchers must ensure students with disabilities are provided equal access to extracurricular activities so they can receive the social-emotional benefits. Findings from this exploratory study suggest that increasing participation in extracurricular athletic activities may reduce the detrimental impacts of bullying on interpersonal relationships.

### Implications for Future Research

In a study by Peguero (2008), results indicated that different forms of extracurricular activities (e.g., clubs versus athletics) impacted the students' emotional well-being differently. It is possible that the findings in this study may have had different outcomes depending on the type of extracurricular activities being examined. Suppose different types of extracurricular activities result in varying levels of socio-emotional benefits. In that case, it is possible that non-athletic extracurricular activities would produce different results among victims of bullying who have a disability. Implications for future research include investigating how different types of extracurricular involvement may have varied influences on the personal relationships among bullying victims with disabilities.



## Conclusion

The results of this study support the results of past studies. This study found that children with disabilities showed more relational resilience when participating in extracurricular activities compared to students who did not participate. Although implications indicate that different extracurricular activities may have different results, this study sets a foundation for future studies examining the socio-emotional benefits for students with special needs.

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Table 1: Ordinal Logistic Regression - Negative Bullying Impact on Personal Relationships with Family and Friends

Parameter	B	Std. Error	Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
			Wald Chi-Square	df	Sig.		Lower	Upper
Threshold								
Personal Relationships Outcome = 1	.272	.6971	.153	1	.696	1.313	.335	5.148
Personal Relationships Outcome = 2	1.048	.6987	2.251	1	.134	2.852	.725	11.218
Personal Relationships Outcome = 3	2.497	.7133	12.256	1	.000	12.151	3.002	49.181
Participates in Athletics [No]	.480	.1827	6.914	1	.009*	1.617	1.130	2.313
Participates in Athletics [Yes]	0 <sup>a</sup>	.	.	.	.	1	.	.
Gender [Male]	-.346	.1718	4.057	1	.044*	.707	.505	.991
Gender [Female]	0 <sup>a</sup>	.	.	.	.	1	.	.
Race [Non-Minority]	.125	.2150	.341	1	.559	1.134	.744	1.728
Race [Minority]	0 <sup>a</sup>	.	.	.	.	1	.	.
[Not Hispanic/Latino/a]	-.531	.2313	5.271	1	.022*	.588	.374	.925
[Hispanic/Latino/a]	0 <sup>a</sup>	.	.	.	.	1	.	.
Age	-.047	.0458	1.048	1	.306	.954	.872	1.044

Pearson Chi-Square:  $\chi^2(6) = 17.223^a, p = .008$

Source: National Crime Victimization Survey: School Crime Supplement; Year 2015 Wave