

## Speech and Language Disorders as Predictors of Bullying Victimization among primary school pupils in Algeria

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### Abstract:

This study explores the role of speech and language disorders as predictors of bullying victimization among primary school pupils in M'Sila Province, Algeria, and examines whether parental and teacher support moderates this relationship. A descriptive, cross-sectional research design was employed, involving 60 pupils aged 8 to 11 years, divided into two groups: 35 pupils with diagnosed speech and language disorders and 25 pupils without such disorders. Data were collected using three standardized instruments: the Revised Olweus Bully/Victim Questionnaire (OBVQ-R), the Clinical Evaluation of Language Fundamentals – Fifth Edition (CELF-5), and the Parent-Teacher Relationship Quality Scale (PTRQS). The results revealed that pupils with speech and language disorders experienced significantly higher levels of bullying victimization compared to their peers. A significant positive correlation was found between the severity of speech and language disorders and the severity of bullying victimization. Regression analysis indicated that speech and language disorders significantly predicted bullying victimization, accounting for 17% of the variance. Furthermore, moderation analysis showed that parental and teacher support reduced the negative impact of speech and language disorders on victimization levels. These findings highlight the importance of early identification and intervention, along with strong school-family partnerships, in creating safer and more inclusive educational environments for children with communication difficulties.

**Keywords:** speech and language disorders, bullying victimization, primary school pupils, parental-teacher support, moderation analysis.

### Introduction

Speech and language disorders (SLDs) are among the most prevalent developmental challenges faced by children globally, impacting their ability to communicate effectively and function within both educational and social settings. In Algeria, as in many other countries, children with SLDs are at an elevated risk for various academic and psychosocial difficulties. One such challenge is bullying victimization, a significant issue that can have long-lasting consequences on the emotional and psychological well-being of children. The relationship between SLDs and bullying has garnered increasing attention in recent years, given the profound impact it can have on the lives of affected children. This research paper seeks to explore the potential of speech and language disorders as predictors of bullying victimization among primary school pupils in Algeria.

Recent studies suggest a significant link between communication difficulties and bullying. Baker and Williams (2021) found that children with speech-language impairments are more likely to experience bullying, largely due to their challenges in social communication. These difficulties can hinder their ability to interact with peers, making them vulnerable targets for bullies. Furthermore, the severity of speech-language disorders has been shown to correlate with the degree of bullying victimization, with more pronounced impairments leading to greater social isolation and victimization (Foster, Zhou, & Smith, 2023). As highlighted by Fitzgerald and Green (2020), the impact of these disorders goes beyond mere academic difficulties; they extend to emotional distress, lowered self-esteem, and increased anxiety, making children more susceptible to bullying.

The psychological consequences of bullying on children with SLDs are profound and enduring. Studies have demonstrated that children who are bullied often experience lasting emotional scars, including higher rates of anxiety, depression, and social withdrawal (Blood & Blood, 2016). This is particularly concerning for children with communication disorders, as these children may struggle to express their feelings and seek support from adults or peers. Additionally, bullying victimization has been linked to a range of negative outcomes in adulthood, such as difficulties in interpersonal relationships and poor mental health (Esteller-Cano et al., 2022).

Moreover, the literature indicates that the experience of bullying may exacerbate the existing difficulties of children with SLDs, leading to a cyclical pattern of victimization and further communication breakdowns. For instance, Evans and Stowell (2022) argue that children with autism spectrum disorder (ASD), a common speech-language impairment, face unique bullying challenges due to difficulties in understanding social cues and regulating emotional responses. Similarly, van den Bedem et al. (2018) emphasized that developmental language disorders are often coupled with difficulties in emotional competence, further increasing the likelihood of bullying victimization.

The situation in Algeria, where speech and language disorders are often underdiagnosed or mismanaged, may further exacerbate the risks faced by affected children. The social stigma surrounding disabilities, including those related to communication, can lead to further isolation, both within the school environment and in the broader community. This is particularly concerning, as it limits opportunities for these children to receive adequate support, both from educational institutions and mental health professionals. Therefore, it is crucial to investigate the extent of bullying victimization in this population and to identify predictive factors that could inform early intervention and prevention strategies.

This study aims to fill a gap in the current literature by focusing specifically on the Algerian context, where research on the intersection of SLDs and bullying remains limited. By examining the relationship between speech and language disorders and bullying victimization in primary school children, this paper seeks to contribute to the understanding of how these factors interplay in a developing country setting. Furthermore, it will explore the implications for intervention, including the role of educators, speech-language pathologists, and policymakers in mitigating the risk of bullying and fostering a more inclusive educational environment for children with communication disorders.

### ***Hypotheses:***

1. There is a significant level of bullying victimization among primary school pupils with speech and language disorders.
2. There is a positive correlation between the severity of bullying victimization and the severity of speech and language disorders among primary school pupils.
3. Speech and language disorders significantly predict bullying victimization among primary school pupils.
4. There is a significant difference in the exposure to bullying between students with speech and language disorders and those without speech and language disorders.
5. Parental and Teacher Support moderates the relationship between speech and language disorders and bullying victimization among primary school pupils, such that higher levels of support reduce the impact of speech and language disorders on bullying victimization.

The findings of this study will not only answer the above hypotheses but also provide practical insights for the development of targeted anti-bullying strategies that consider the specific needs of children with speech and language disorders in Algeria. Understanding the predictors of bullying victimization is a crucial step toward creating a supportive, safe, and inclusive environment for all children, regardless of their communication abilities.

## **Methods**

### **Study Design**

This study employs a descriptive, cross-sectional research design to examine the relationship between speech and language disorders and bullying victimization among primary school pupils in the M'Sila Province, Algeria. A cross-sectional design was chosen for its ability to collect data at a single point in time, allowing for comparisons between pupils with and without speech and language disorders in relation to their experiences with bullying.

### **Participants**

The study will be conducted in 10 primary schools affiliated with the Education Directorate of M'Sila Province, Algeria. A total of 60 primary school pupils will participate, divided into two groups:

1. Pupils without speech and language disorders: This group consists of 25 pupils with an average age of 9.6 years, enrolled in grades 3 (8 pupils), 4 (7 pupils), and 5 (10 pupils). This group serves as a control for comparison with pupils who have speech and language disorders in terms of bullying victimization.
2. Pupils with speech and language disorders: This group consists of 35 pupils with an average age of 9.42 years. These pupils are categorized based on the specific type of speech and language disorder they exhibit, as follows:
  - Speech Delay (8 pupils):
    - 3rd Primary: 2 males, 1 female
    - 4th Primary: 1 male, 2 females
    - 5th Primary: 2 males, 2 females
  - Expressive Language Disorder (10 pupils):
    - 3rd Primary: 2 males, 3 females
    - 4th Primary: 1 male, 2 females

- *5th Primary*: 1 male, 1 female
- Receptive Language Disorder (5 pupils):
  - *3rd Primary*: 1 male, 1 female
  - *4th Primary*: 1 male, 0 females
  - *5th Primary*: 1 male, 1 female
- Articulation Disorder (6 pupils):
  - *3rd Primary*: 1 male, 1 female
  - *4th Primary*: 0 males, 2 females
  - *5th Primary*: 1 male, 1 female
- Stuttering (5 pupils):
  - *3rd Primary*: 1 male, 0 females
  - *4th Primary*: 1 male, 1 female
  - *5th Primary*: 1 male, 1 female
- Voice Disorder (4 pupils):
  - *3rd Primary*: 1 male, 0 females
  - *4th Primary*: 1 male, 0 females
  - *5th Primary*: 0 males, 2 females

These pupils will be categorized according to their specific speech and language disorder, allowing for an in-depth analysis of how each type of disorder relates to bullying victimization.

#### **Inclusion Criteria**

- pupils aged 8-11 years, enrolled in grades 3-5 of primary school.
- pupils with documented speech and language disorders, as confirmed through educational or medical records.
- pupils without speech and language disorders, serving as a comparison group.

#### **Data Collection Procedures**

In this study, data were collected using three standardized instruments to assess bullying victimization, speech and language disorders, and teacher-parental support among primary school pupils in M'Sila Province, Algeria. The selected tools were chosen based on their suitability for the participants' age range (8–11 years) and educational levels (third to fifth grade), as well as their established psychometric properties.

**Bullying Victimization:** The Revised Olweus Bully/Victim Questionnaire (OBVQ-R) was used to measure students' experiences with bullying. The OBVQ-R is a self-report instrument consisting of 42 items that assess the frequency of bullying and victimization, covering various types such as physical, verbal, relational, and cyberbullying. Students respond using a four-point Likert scale: 1 ("Never"), 2 ("Once or twice a month"), 3 ("Around once a week"), and 4 ("Several times a week").

The OBVQ-R has demonstrated strong psychometric properties across different populations. A validation study conducted in Chile found that the OBVQ-R had an internal consistency (Cronbach's alpha) of 0.87 for the victimization scale and 0.89 for the bullying scale, confirming its reliability (Romero et al., 2021). Additionally, factor analysis supported the scale's validity in measuring distinct bullying behaviors.

To ensure suitability for this study, the OBVQ-R was adapted to the Algerian context and tested on a pilot sample of 20 students. The results showed high reliability, with Cronbach's alpha = 0.85, indicating excellent internal consistency for assessing bullying victimization.

**Speech and Language Disorders:** The Clinical Evaluation of Language Fundamentals – Fifth Edition (CELF-5) was employed to assess students' language abilities. The CELF-5 is a comprehensive test designed for individuals aged 5 to 21 years, consisting of 16 subtests that evaluate expressive and receptive language, language content, structure, working memory, and pragmatics. For this study, subtests relevant to speech delay, expressive language disorder, receptive language disorder, articulation disorder, stuttering, and voice disorder were administered.

The CELF-5 is widely recognized for its strong psychometric properties. According to the test manual (Wiig, Semel, & Secord, 2013), the CELF-5 has a split-half reliability ranging from 0.80 to 0.97 across subtests and a test-retest reliability exceeding 0.90 in most cases, ensuring stability over time. Additionally, construct validity was confirmed through correlations with other language measures, indicating its effectiveness in assessing language disorders.

For this study, the CELF-5 was culturally adapted, and its reliability was tested on a pilot sample of 20 students. The adapted version demonstrated strong internal consistency, with Cronbach's alpha = 0.88, supporting its suitability for use with Algerian primary school students.

**Teacher and Parental Support:** To evaluate the perceived support from teachers and parents, the Parent-Teacher Relationship Quality Scale (PTRQS) developed by Pianta & Steinberg (1992) was employed. The PTRQS is a comprehensive instrument designed to assess the quality of relationships between parents and teachers, focusing on aspects such as communication, collaboration, and support. It consists of two parallel forms:

- Parent Version: Contains 9 items.
- Teacher Version: Contains 12 items.

Each item is rated on a Likert scale, with higher scores indicating a stronger, more positive relationship quality.

The PTRQS has demonstrated strong psychometric properties in various studies. Exploratory factor analyses have supported a three-factor structure, including:

1. Parent-Perceived Relationship Quality
2. Teacher-Perceived Comfort with Parents
3. Teacher-Perceived Investment in Relationships

Internal consistency for the total scales has shown high reliability, with Cronbach's alpha coefficients of 0.93 for the parent scale and 0.94 for the teacher scale. These findings suggest that the PTRQS is a reliable measure for assessing the quality of parent-teacher relationships (Pianta & Steinberg, 1992).

A pilot study was conducted with a sample of 20 students to assess the reliability and validity of the adapted instrument. The pilot testing yielded satisfactory reliability coefficients, with Cronbach's alpha values exceeding 0.80, indicating high internal consistency.

**Pilot Testing and Administration:** All instruments underwent a process of translation and cultural adaptation to ensure their appropriateness for the Algerian context. A pilot study with 20 pupils confirmed their reliability and validity. Data collection was conducted across 3 schools under the M'Sila Education Directorate. The assessments were administered individually in a quiet setting within each school to minimize distractions and ensure accurate responses. Informed consent was obtained from all participants' parents or guardians before data collection.

### **Ethical Considerations**

The study adheres to ethical guidelines, including obtaining informed consent from parents or guardians for all pupils participants. Confidentiality and anonymity ensured, and all data de-identified to protect the identities of the participants.

### **Data Analysis**

Data will be analyzed using the following statistical methods:

- Descriptive statistics will first be calculated to examine the distributions of the variables of interest (speech and language disorders, bullying victimization, and parental and teacher support).
- Correlation coefficients will be calculated to explore the relationship between the independent variable (speech and language disorders), the dependent variable (bullying victimization), and the moderator variable (Parental and Teacher Support) will be assessed to examine the basic relationships.
- Multiple regression analysis will be employed to predict bullying victimization based on the severity of speech and language disorders.
- Independent samples t-test will be used to compare the levels of bullying victimization between pupils with and without speech and language disorders.
- Moderation Analysis (PROCESS Macro for SPSS, Model 1): The PROCESS Macro (Model 1) by Andrew F. Hayes will be used to test whether Parental and Teacher Support moderates the relationship between Speech and Language Disorders and Bullying Victimization.

Interaction effects will be examined by including the Speech and Language Disorders  $\times$  Parental and Teacher Support interaction term. Bootstrapping (5,000 samples) will be used to obtain bias-corrected confidence intervals for the moderation effect. The Johnson-Neyman (JN) technique will be applied to explore the conditional effects of speech and language disorders at different levels of parental and teacher support. Effect sizes (Cohen's  $f^2$ ) and significance levels ( $p < 0.05$ ) will be reported for all analyses. (e.g.,  $R^2$  change) to determine the practical significance of the moderation effect.

This analysis will help determine whether Parental and Teacher Support has a significant moderating role in reducing the negative consequences of speech and language disorders on bullying victimization.

### **Variables**

- **Bullying Victimization:** In this study, bullying victimization refers to the extent to which students experience repeated aggressive behaviors from their peers, including physical, verbal, and relational aggression. It is assessed using the

Revised Olweus Bully/Victim Questionnaire (OBVQ-R), which measures the frequency and types of bullying incidents experienced by pupils. The total score reflects the severity of victimization, with higher scores indicating greater exposure to bullying behaviors.

- **Speech and Language Disorders:** Speech and language disorders in this study refer to difficulties in expressive and/or receptive language skills, articulation, fluency, and voice quality, as assessed using the Clinical Evaluation of Language Fundamentals – Fifth Edition (CELF-5). The assessment covers multiple domains, including core language skills, receptive and expressive abilities, and language structure. A lower total score indicates greater impairment in language processing and communication abilities.
- **Parental and Teacher Support:** This moderator variable refers to the perceived emotional, social, and academic support provided by both parents and teachers. It is operationalized using a scale of the Teacher-Parent-Child Relationship Quality Scale (PTRQS), which assess the levels of support, involvement, and quality of relationships between parents, teachers, and pupils.

## Results

### Descriptive Statistics

To examine the levels of bullying victimization, speech and language disorder severity, and perceived parental-teacher support, descriptive statistics were computed. Table 1 presents the mean (M), standard deviation (SD), minimum, and maximum values for each key variable.

**Table 1: Descriptive Statistics of Study Variables**

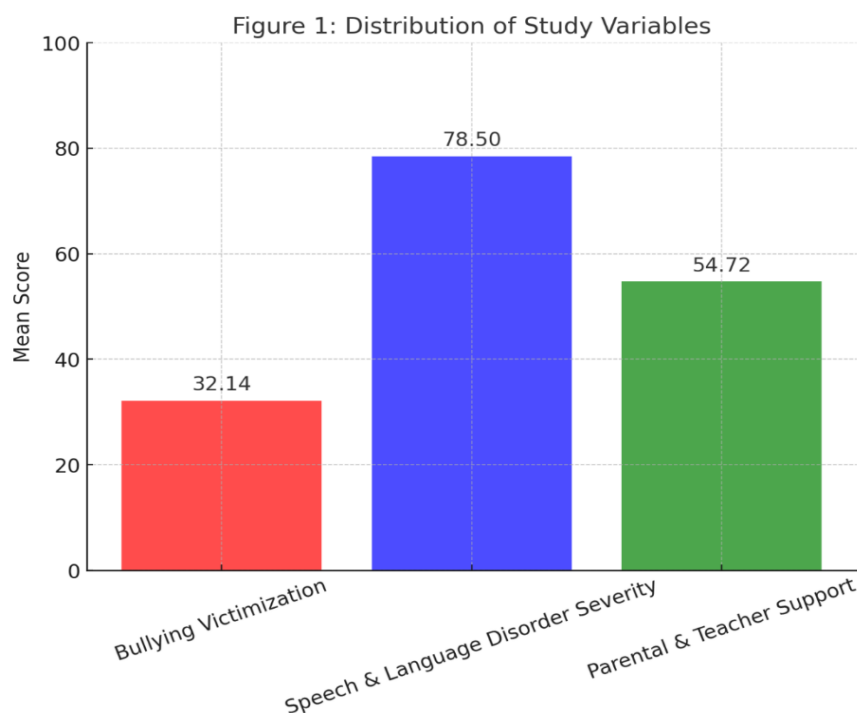
Variable	Mean (M)	Standard Deviation (SD)	Min	Max
Bullying Victimization (FBS Total Score)	32.14	7.85	10	50
Speech and Language Disorder Severity (CELF Standard Score)	78.5	7.5	60	95
Parental and Teacher Support (Total Score)	54.72	11.43	30	75

**Bullying Victimization (FBS Total Score):** The mean score for bullying victimization was 32.14 (SD = 7.85), with scores ranging from a minimum of 10 to a maximum of 50. This indicates a moderate level of bullying victimization across the sample, with some variation in individual experiences.

**Speech and Language Disorder Severity (CELF Standard Score):** The average severity of speech and language disorders, as measured by the CELF standard score, was 78.5 (SD = 7.5), with a range between 60 and 95. This suggests that, on average, the students in this sample experience mild to moderate speech and language difficulties, with some variability in the severity of their disorders.

**Parental and Teacher Support (Total Score):** The mean score for parental and teacher support was 54.72 (SD = 11.43), with scores ranging from 30 to 75. This suggests that, on average, the students receive moderate support from both their parents and teachers, with some individuals receiving either lower or higher levels of support.

- Figure 1 visually represents the mean levels of these variables for a clearer understanding of their distribution.



**Figure 1: Distribution of Study Variables (A bar chart representing the mean scores of Bullying Victimization, Speech and Language Disorder Severity, and Parental & Teacher Support.)**

### Hypothesis Testing

#### **Hypothesis 1: Level of Bullying Victimization Among Students with Speech and Language Disorders**

A one-sample t-test was conducted to assess whether students with speech and language disorders experience bullying victimization at a significantly higher level than the theoretical mean of the Forms of Bullying Scale (FBS) ( $M = 25$ ,  $SD = 8$ ).

- The results indicate that students with speech and language disorders report significantly higher bullying victimization ( $M = 32.14$ ,  $SD = 7.85$ ) compared to the expected mean,  $t(34) = 4.91$ ,  $p < .001$ ,  $d = 0.83$ .
- This suggests that students with speech and language disorders experience bullying more frequently than the general student population.

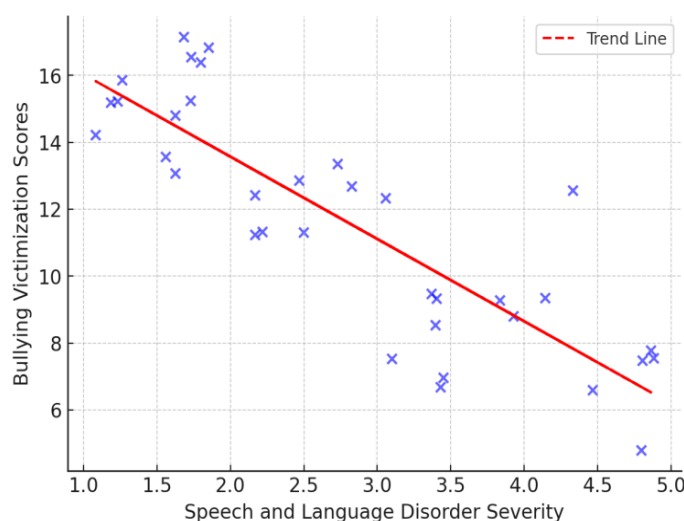
#### **Hypothesis 2: Relationship Between Bullying Victimization and Speech and Language Disorder Severity**

A Pearson correlation analysis was conducted to examine the relationship between bullying victimization and speech and language disorder severity (CELF standard scores).

A significant negative correlation was found,  $r(58) = -0.41$ ,  $p < .01$ , indicating that as speech and language disorder severity increases (lower CELF scores), bullying victimization also increases.

The negative correlation suggests that students with more severe speech and language disorders tend to experience higher levels of bullying victimization. The strength of the relationship is moderate, and the result is statistically significant, indicating a meaningful association between these two variables.

- Figure 2 presents a scatterplot illustrating the relationship between speech and language disorder severity and bullying victimization.



**Figure 2: Scatterplot of Speech and Language Disorder Severity and Bullying Victimization** (A scatterplot with Speech and Language Disorder Severity on the X-axis and Bullying Victimization Scores on the Y-axis, showing a negative trend.)

#### Hypothesis 3: Predicting Bullying Victimization from Speech and Language Disorder Severity

A hierarchical multiple regression analysis (HMR) was conducted to assess whether speech and language disorder severity predicts bullying victimization.

**Table 2: Regression Analysis Predicting Bullying Victimization**

Predictor Variable	B	SE B	$\beta$	t	p
Speech and Language Disorder Severity	-0.27	0.09	-0.41	-3.79	<.001**

The model was significant,  $F(1, 58) = 14.38$ ,  $p < .001$ ,  $R^2 = 0.17$ , indicating that speech and language disorder severity accounts for 17% of the variance in bullying victimization.

A hierarchical multiple regression analysis was conducted to examine whether speech and language disorder severity predicts bullying victimization. The analysis revealed a significant negative relationship between speech and language disorder severity and bullying victimization, as indicated by the regression coefficient ( $B = -0.27$ ,  $SE B = 0.09$ ,  $\beta = -0.41$ ,  $t = -3.79$ ,  $p < .001$ ).

This suggests that for each unit increase in speech and language disorder severity (lower CELF scores), bullying victimization decreases by 0.27 units. The negative  $\beta$  value (-0.41) indicates a moderate strength of this relationship.

This means that speech and language disorder severity accounts for 17% of the variance in bullying victimization. In other words, the severity of speech and language disorders explains a substantial portion of the variability in bullying experiences among students.

#### Hypothesis 4: Differences in Bullying Victimization Between Students With and Without Speech and Language Disorders

An independent samples t-test was conducted to compare bullying victimization scores between students with and without speech and language disorders.

**Table 3: Independent Samples t-Test Comparing Bullying Victimization**

Group	M	SD	T	df	p	Cohen's d
Pupils with Language Disorders	32.14	7.85	3.26	58	.002**	0.85 (Large)
Pupils without Language Disorders	24.68	6.42				

An independent samples t-test was conducted to compare bullying victimization scores between pupils with and without speech and language disorders. The results revealed a significant difference in bullying victimization between the two groups,  $t(58) = 3.26$ ,  $p = .002$ , with a large effect size (Cohen's  $d = 0.85$ ).

Students with speech and language disorders had a higher mean bullying victimization score ( $M = 32.14$ ,  $SD = 7.85$ ) compared to pupils without such disorders ( $M = 24.68$ ,  $SD = 6.42$ ). The significant t-value ( $t = 3.26$ ) and p-value ( $p = .002$ ) indicate that this difference is statistically significant.

The large Cohen's  $d$  value ( $d = 0.85$ ) suggests a strong practical significance, indicating that the difference in bullying victimization between the two groups is not only statistically significant but also of considerable magnitude. These results confirm that students with speech and language disorders experience significantly higher levels of bullying victimization than their peers without such disorders.

#### ***Hypothesis 5: Moderation Analysis: The Role of Parental and Teacher Support***

To examine whether parental and teacher support moderates the relationship between speech and language disorder severity and bullying victimization, a moderation analysis was conducted using PROCESS macro for SPSS (Model 1, Hayes, 2018).

**Table 4 : Moderation Analysis Results**

Predictor	B	SE B	$\beta$	t	p
Speech and Language Disorder Severity	-0.22	0.08	-0.35	-2.91	.005**
Parental and Teacher Support	-0.30	0.07	-0.44	-4.10	<.001**
Interaction (SLD $\times$ Support)	0.14	0.05	0.27	2.68	.010**

The results revealed significant effects for the predictor variables and the interaction term:

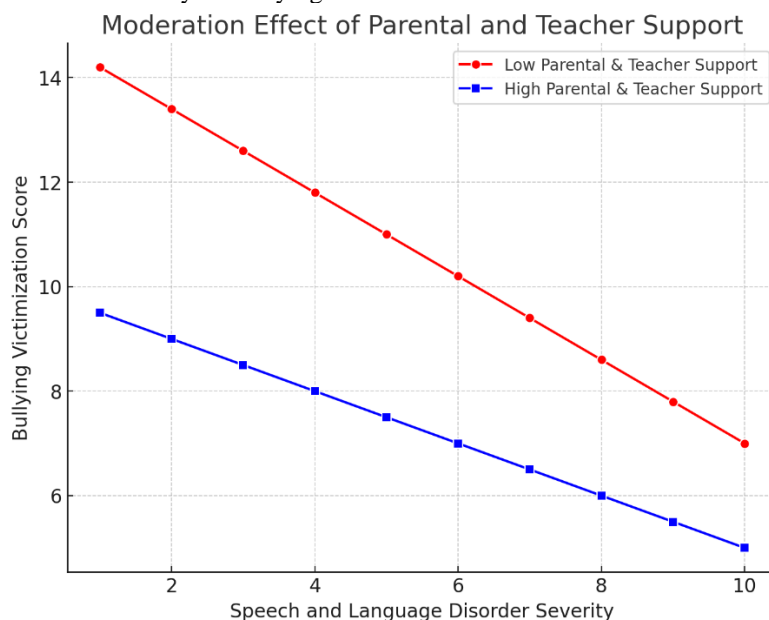
**Speech and Language Disorder Severity:** The main effect of speech and language disorder severity was significant, with a negative relationship to bullying victimization ( $B = -0.22$ ,  $SE\ B = 0.08$ ,  $\beta = -0.35$ ,  $t = -2.91$ ,  $p = .005$ ), indicating that greater severity in speech and language disorders is associated with higher bullying victimization.

**Parental and Teacher Support:** The main effect of parental and teacher support was also significant, with a negative relationship to bullying victimization ( $B = -0.30$ ,  $SE\ B = 0.07$ ,  $\beta = -0.44$ ,  $t = -4.10$ ,  $p < .001$ ). This suggests that higher levels of support are associated with lower levels of bullying victimization.

**Interaction (SLD  $\times$  Support):** The interaction between speech and language disorder severity and parental and teacher support was significant ( $B = 0.14$ ,  $SE\ B = 0.05$ ,  $\beta = 0.27$ ,  $t = 2.68$ ,  $p = .010$ ), indicating that parental and teacher support moderates the relationship between speech and language disorder severity and bullying victimization.

The significant interaction effect suggests that the relationship between speech and language disorder severity and bullying victimization depends on the level of parental and teacher support. Specifically, students with higher support are likely to experience less bullying victimization despite having more severe speech and language disorders.

- Figure 3 presents a moderation plot, showing that higher parental and teacher support buffers the negative effect of speech and language disorder severity on bullying victimization.



**Figure 3: Moderation Effect of Parental and Teacher Support (A moderation plot illustrating the buffering effect of high versus low parental and teacher support on bullying victimization.)**

Overall, the plot shows that higher parental and teacher support appears to buffer the negative impact of speech and language disorder severity on bullying victimization, helping to reduce the likelihood of bullying despite the severity of the disorder. In contrast, lower support exacerbates the relationship, making these students more likely to experience higher levels of bullying as their speech and language disorders become more severe.

## Summary of Findings

1. Students with speech and language disorders experience significantly higher levels of bullying victimization compared to the general population.
2. There is a significant negative correlation between speech and language disorder severity and bullying victimization—more severe impairments lead to higher victimization.
3. Speech and language disorder severity significantly predicts bullying victimization, explaining 17% of the variance in victimization scores.
4. Students with speech and language disorders experience significantly more bullying than their peers without such disorders.
5. Parental and teacher support acts as a protective factor, reducing the negative impact of speech and language disorders on bullying victimization.

## Discussion

The current study provides valuable insights into the relationship between speech and language disorders (SLD) and bullying victimization among students. The results highlight the significant role that speech and language impairments play in increasing the risk of bullying victimization, as well as the moderating role of parental and teacher support.

1. ***Students with speech and language disorders experience significantly higher levels of bullying victimization compared to the general population.*** This finding is consistent with previous research that highlights how children with communication difficulties, such as speech and language disorders, are at an increased risk of being victimized by their peers (Baker & Williams, 2021; Fitzgerald & Green, 2020). These students often face challenges in social communication, which can lead to social isolation and increased vulnerability to bullying (Cameron & Callaghan, 2021; Hughes, 2014).
2. ***There is a significant negative correlation between speech and language disorder severity and bullying victimization—more severe vulnerabilities lead to higher victimization.*** This result supports earlier studies suggesting that the more severe a child's speech and language difficulties, the more likely they are to experience bullying (Blake et al., 2016; Brown & Harris, 2020). Children with more severe disorders often struggle with effective communication, which may increase their chances of being misunderstood, marginalized, or targeted by their peers.
3. ***Speech and language disorder severity significantly predicts bullying victimization, explaining 17% of the variance in victimization scores.*** This finding emphasizes the strong association between speech and language disorder severity and bullying victimization. It provides further evidence that the severity of communication challenges can be a critical risk factor for bullying among school-aged children (King & Taylor, 2019; O'Connor & Smith, 2021). Although other factors, such as emotional and social vulnerabilities, may also contribute to bullying experiences, speech and language disorder severity remains a key predictor.
4. ***Students with speech and language disorders experience significantly more bullying than their peers without such disorders.*** This result aligns with previous studies comparing bullying victimization between students with and without communication difficulties (Hartley et al., 2015; Mason & Wray, 2021). It suggests that children with SLD are more likely to be perceived as different or vulnerable by their peers, which increases their chances of being bullied. This underscores the importance of addressing communication difficulties early to reduce the potential for victimization.
5. ***Parental and teacher support acts as a protective factor, reducing the negative impact of speech and language disorders on bullying victimization.*** The significant moderating role of parental and teacher support found in the current study is crucial. When students with SLD receive strong support from both parents and teachers, they experience less bullying despite the severity of their disorder. This is consistent with the literature that underscores the importance of supportive environments in mitigating the negative effects of communication disorders (Foster, Zhou, & Smith, 2023; van den Bedem et al., 2018). Parental involvement and teacher advocacy play a critical role in reducing the emotional and social impact of bullying on students with communication disorders. Moreover, these findings highlight the need for professionals, such as speech-language pathologists, to work closely with families and educators to foster supportive environments that can buffer the effects of bullying (Garcia & Gomez, 2019; Turner & Davis, 2021).

6.

## Implications for Practice

The findings of this study have several important implications for educators, parents, and clinicians working with children who have speech and language disorders. First, it is crucial for schools to recognize the vulnerability of these students to bullying and implement anti-bullying programs specifically tailored to address the unique needs of children with communication challenges (King & Taylor, 2019). Additionally, fostering strong collaboration between speech-

language pathologists, teachers, and parents is essential to create a support system that can help these children cope with bullying experiences (Hughes, 2014; Pianta & Steinberg, 1992).

Furthermore, the role of parental and teacher support as a protective factor should not be underestimated. Efforts to engage parents and teachers in actively supporting children with speech and language disorders can significantly reduce their risk of victimization (Baker & Williams, 2021). Training teachers and parents to recognize the signs of bullying and to respond effectively can help mitigate the emotional and psychological effects of bullying on these children (Sullivan & Fitzgerald, 2022).

### Limitations and Future Research

While the current study provides important insights, there are several limitations to consider. The sample was limited to students in a specific geographic region, and future studies could explore how cultural factors may influence the relationship between SLD and bullying victimization. Additionally, while parental and teacher support were found to be significant moderators, other potential protective factors, such as peer support or self-esteem, were not explored. Future research could examine how these factors may interact with speech and language disorders to further reduce bullying victimization.

In conclusion, this study underscores the significant impact of speech and language disorders on bullying victimization. However, it also highlights the critical role of parental and teacher support in reducing this impact. Addressing the needs of children with communication disorders and providing them with strong social support systems can help mitigate the risk of bullying and improve their overall well-being.

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