

### **Critical Review:**

## **What is the rate of peer victimization in children with specific language impairment, and what attributes are associated with peer victimization?**

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This critical review examines the rate of peer victimization in school aged children with specific language impairment (SLI), as well as which attributes or educational settings are associated with increased risk for victimization. Overall, research indicates that children with SLI are at risk for higher rates of peer victimization than their typically developing peers. Research also indicates that the type of educational setting (mainstream versus special classrooms/schools) does not have a significant impact on rates of peer victimization. There were several attributes such as social/behavioural functioning, hyperactivity, anxiety and depression that were associated with increased victimization in some studies, but few consistent patterns were apparent across studies.

### ***Introduction***

There are a variety of definitions of peer victimization (also known as bullying), but experts agree that there are three common aspects that must exist; there must be an imbalance of physical, social, or emotional power, the acts must be systematic with the intent to cause emotional or physical harm to the victim, and the act or perpetration are repeated over the course of days, weeks, months (Rose et al., 2011). The negative risks associated with chronic peer victimization on children have been reported to include “undesirable socioeconomic and academic outcomes, including anxiety, depression, impaired concentration, somatic symptoms, impaired self-esteem, absenteeism, academic underachievement and suicidal ideation” (Redmond, 2011). Children with disabilities appear to be at even greater jeopardy for these negative outcomes as it has been reported that they are at a higher risk for peer victimization. For example in a study of 102, 353 US children aged 0-17, parents of children with special needs reported their children to be 1.5-2 times more likely to be subjects of peer victimization than parents of typically of developing children (Van Cleave & Davis, 2006). As speech language pathologists there is a need for information on the specific populations that SLPs typically see, such as specific language impairment (SLI). SLI is an “impairment in language comprehension, language production or both in the absence of hearing impairment, a general developmental delay (i.e. normal performance IQ), any neurological impairments (i.e. perinatal bleeds, seizure disorders) and no diagnosis of autism” (Schwartz 2009). Research has already shown that children with SLI are known to have more difficulty than their peers with social interactions, have fewer friends and be less satisfied with the quality of their friendships (Fujiki et al., 1996).

### ***Objectives***

This paper has two objectives; the first is to examine the current research on the rate of peer victimization in school aged children with specific language impairment and to compare that rate to typically developing peers where possible. The second part is to determine which, if any, attributes or educational settings were associated with increased peer victimization.

### ***Methods***

#### Search Strategy

Computerized databases CINAHL, PubMed, and Web of Knowledge were searched using the following terms: (Specific language impairment) OR (SLI) AND bully\*, (Specific Language Impairment) OR (SLI) AND peer victimization, Language Disorders AND bully\*, Language Disorder AND peer victimization. References from papers that met the selection criteria were also examined for potential articles.

#### Selection Criteria

Articles were selected that included research on school aged children aged 5-18. Articles that investigated SLI were the focus of the review although one article from the UK used the term ‘specific speech and language difficulties’ (SSLD) synonymously with SLI and that article were included. Another article studied children in a language base (class) and it was also included.

#### Data Collection

Results of the literature search yielded the following types of articles congruent with the aforementioned selection criteria: six uncontrolled observational design studies.

## Results

Redmond (2011) conducted an uncontrolled observational design study which compared peer victimization risks in children with SLI, ADHD, and typically development, as well as which verbal, attitudinal, behavioural, and social measures are associated negative and positive peer behaviour. The participants in the study were 20 children with SLI, 20 children with ADHD, and 20 typically developing children aged 7-8 years old. The criteria for the SLI group were that they have a diagnosis of SLI by a certified SLP and perform below the age appropriate cutoff on the *CELF 4*. The criteria for the ADHD group were to have a diagnosis of combined type ADHD and be rated by their parents within the clinical range on the *Child Behavior Checklist DSM-ADHD*. Criteria for the typically developing group were that they had to be attending the same schools as the SLI/ADHD children and were not receiving any special services. Peer victimization risk was measured using the *My Life in School (MLIS)* checklist, with 8 questions making up a 'verbal' peer victimization index added. Their results indicated that 40% of SLI children were at risk for peer victimization, compared to 20% for ADHD and 10% for typically developing children (Redmond, 2011). Statistical analysis of results using the odds ratio found this was a significant difference. The participants were also assessed on their verbal abilities, behavioural profiles completed by parents, academic attitudes, and social measures from a parent questionnaire. These results were analyzed by Pearson product-moment correlations between peer victimization and the verbal, behavioural, social and attitudinal measures. Most measures had non-significant or moderately significant associations, but for children with SLI relatively higher narrative abilities were associated with increased levels of peer pro-social (positive) behavior. Higher comprehension scores were associated with increased rates of both physical and verbal peer victimization. Higher levels of parent reported hyperactivity were moderately associated with elevated physical and verbal peer victimization in SLI children. They also observed that in TD and ADHD children an increased number of close friends was associated with lower verbal and physical peer victimization scores, but in SLI children this trend did not exist.

**Strengths:** The study provided good descriptions of selection criteria, assessments used, appropriate statistical analysis and a good review of the literature in its rational. They added the verbal peer victimization questions to the *MLIS* which increased their ability to determine accurate peer victimization rates.

**Limitations:** Relatively small sample size, 'verbal peer victimization items were not normed.

As part of an ongoing UK study of children identified with SLI (The Manchester Language Study) Knox and Conti-Ramsden (2003) used an uncontrolled observational design to investigate the rate of peer victimization in children with SLI and their age matched typically developing peers, as well as the relationship between educational setting and victimization. In 1995 242 seven year old children in language bases (classes) from across the UK were recruited to participate in an ongoing study, at age eleven 100 of those SLI children from the original study participated in the current study. The SLI children were divided by type of educational placement; either mainstream school (n=50) or special education (n=50). Children in each group were administered the short form of the *Wechsler Intelligence Scale for Children (WISC III)*, and ANOVA analysis found no significant differences between the non-verbal intelligence of the two groups. The peer victimization risk for the SLI groups were compared to those of typically developing age matched peers (n=50) by completing the *My Life in School (MLIS)* checklist. The study found that 36% of SLI children were at risk for victimization compared to 12% of normally developing children. The authors analyzed the results using Fisher's Exact Test and found no statistically significant difference between peer victimization rates in mainstream or special education settings.

**Strengths:** One strength of the study, and all the Manchester Language Study based research, was that they contacted teachers from all known language classes in the UK in order to recruit children for their SLI group. This allowed them to have both a very large sample size for a SLP study and participants from all across the UK.

**Limitations:** A major limitation of this, and all Manchester Language Study based research, is that selection criteria for the SLI group did not include any assessment by the researchers or a known diagnosis of SLI. All that was required was attendance in a language base (a special class that offers language focus) and the absence of hearing loss, physical disability, diagnosis of autism or moderate learning difficulty (later analysis found that 84% met traditional SLI criteria). Another limitation of the study is that the authors did not report any statistical analysis to demonstrate that the difference in the rates of victimization between children with SLI and typically developing peers was significant. Further limiting the study is the fact that the age matched peers selected for the study were chosen by the classroom teachers, and it is impossible to know if selection bias on the part of the teachers may have influenced who was included. The *MLIS* checklist was used to determine peer victimization risk, but all six of its items related to physical victimization only. This makes it

impossible to know the risk for verbal victimization for the participants of the study.

In another UK study emerging from the Manchester Language Study, Conti-Ramsden and Botting (2004) used an uncontrolled observational design to investigate the risk of peer victimization, the developmental patterns of social and behavioural difficulties, and the relationship between social difficulties and language ability and non-verbal cognition. For the purpose of this paper the first and third questions are of interest. 181 SLI children participated in the study at age eleven years old. They were administered a battery of tests which included the *My Life in School* (MLIS) checklist to determine their peer victimization risk. This data was compared to norms on peer victimization for typically developing 11 year olds in the UK. The researchers found that 36% of students with SLI were at risk for victimization compared to 12% of typically developing UK students. The researchers found no relationship between non-verbal IQ and victimization, there was also no relationship between victimization and expressive grammar, expressive vocabulary, receptive vocabulary, and pragmatics. Only receptive grammar was weakly associated with victimization.

**Strengths:** The article included details on the assessments administered to the participants, had a very larger sample size, and used appropriate statistical analysis.

**Limitations:** In addition to the limitations based on selection criteria for the Manchester Language Study described above, the study used the norms for the *MLIS* generated by Knox & Conti-Ramsden (2003) for the typically developing group. As mentioned above these typically developing students were selected by their classroom teachers with no way of assessing selection bias on the part of the teachers and included only fifty students. The *MLIS* checklist only includes items related to physical victimization, so there is no way to determine the rate of verbal victimization. This severely limits its ability to accurately determine the prevalence of peer victimization risk.

In a third study based on the Manchester Language Study, Knox and Conti-Ramsden (2007) used an uncontrolled observational design to investigate if children with SLI experience more peer victimization than typical peers, if the risk of being victimized changes over time, what factors predict victimization risk, and if anxiety and depression are associated with experiencing peer victimization in people with SLI. At the age of sixteen, 139 students with a history of SLI were compared to 124 typically developing peers for current peer victimization rates, as well as past peer victimization. The results of the study were that 17% of 16 year olds with a history of SLI reported some degree

of peer victimization at the time of the study, compared with 7% of typically developing 16 year olds. Results for retrospective peer victimization found that 44.2% of SLI students reported some degree of peer victimization at some time, compared with 22.6% of typically developing peers. Statistical analysis using Chi-square confirmed that a significant relationship existed between group membership and both current and past peer victimization experience. The researchers examined which characteristics were associated with victimization currently and found that there was no association between victimization and non-verbal IQ, language ability, or literacy ability for either the SLI or the typically developing group. There was a modest correlation between victimization and friendship in both groups. There was a significant association between behavioural/social-emotional difficulties for the SLI group only. In SLI youth victimization across time revealed that 31.2% experienced victimization in the past but are experiencing none currently, 4.3% are being victimized currently for the first time, and 13% have experienced persistent victimization across time. The relationship between current victimization and anxiety and depression was explored and it was found that there was a significant association between current peer victimization levels and both anxiety and depression in SLI youth, but not typically developing youth.

**Strengths:** The article included details on the assessments administered to the participants, had a very larger sample size, and used appropriate statistical analysis.

**Limitations:** In addition to the limitations based on selection criteria for the Manchester Language Study and the use of the *MLIS* described above, another limitation of this study is the use of self report questions that have not been standardized on other students. This study asks the participants to summarize their victimization experience, which may be less accurate than using a checklist, especially for youth with language impairments. The study also fails to describe if they provided a definition of "bullying" to the participants raising the concern that each participant may have operated under their own individual understanding of what peer victimization entails.

Lindsey, Dockrell and Makie (2008) investigated three areas in their uncontrolled observational design study; the prevalence of victimization among children with SSLD (similar to SLI, but can also include speech difficulties) compared to typically developing (TD) and special education needs (SEN) peers, whether prosocial skills moderated the likelihood of victimization, and whether the risk for victimization in SSLD was associated with pragmatic impairment. The *MLIS* checklist was used, but 10 questions that make up a 'verbal' victimization index were added, so they could

compare both physical and verbal peer victimization rates in 12 year old children from the UK. The study was composed of 67 SLI children (51 boys, 16 girls) of which 50 were in mainstream schools, and 17 were in special schools. The children in mainstream schools were age and gender matched with a typically developing peers from the same class (n=42), and gender and ability matched with SEN peers from the same class. The article reported no statistically significant differences between the rates of physical victimization (SLI= 28%, TD= 22%, SEN=25%) or verbal victimization (SLI=54%, TD=46%, SEN=44%) between any of the three groups using chi-square analysis. They also investigated if there were any significant differences between the peer victimization risks for SLI children in mainstream classrooms (n=50) and those in "special schools for children with language difficulties" (n=17) and found no statistically significant difference in peer victimization between them. There was no association found between prosocial skills and either verbal or physical victimization analyzed using post hoc Bonferroni tests. The authors analyzed the relationship between verbal and physical victimization in SSID children with and without pragmatic impairment using the *Children's Communication Checklist (CCC)* and chi-square analysis and found that pragmatic impairment was not associated with physical victimization, but was negatively associated with verbal victimization (children with pragmatic impairment reported less verbal victimization).

**Strengths:** A major strength of this study was that they investigated both verbal and physical victimization. They also used age/ability and gender matched peers from the same educational setting. They used appropriate statistical analysis and clearly described their methods.

**Limitations:** The authors created the verbal victimization scale and the pro-social scales for this study so they could not be compared to earlier studies and they lack norms.

Savage (2005) developed an uncontrolled observational design to explore three questions; the first was to compare the rate of peer victimization in language base children compared to TD children, the second was to look at the patterns of peer perception of the language base students, and the third was to investigate the effectiveness of an anti-victimization strategy based on "fogging". The participants in the study included 6 (5 male, 1 female) language base children from the UK and 54 typically developing peers. The children were in year 7 (age 11 before the start of the school year) and all attended the same educational institution. Criteria for inclusion in the language base group was having "statements of special education needs with primary focus on language and communication difficulties" and

attendance in a class focused on social/language at least 40% of the day. The *My Life in School (MLIS)* checklist was used to examine victimization risk. 50% of children in the language class reported being at increased risk of peer victimization, compared to 16% of typically developing children. This was found to be highly significant when analyzed using a chi-square test. All the TD participants in the study completed a *Social Inclusion Survey* which asked them to rate how much they like to "hang out with" and "work with" the language base students. The results indicated that the children who reported the highest risk for peer victimization had a lower number of TD children who "didn't mind hanging out with them" (19.6%) compared to the language base children who had lower peer victimization risk (36%). All the language base children were trained to use a "fogging" strategy to deal with peer victimization in which they learned to use partial acknowledgement of verbal peer victimization e.g. "that might be true" combined with appropriate pragmatic skills (voice tone, eye contact). At the same time they were also trained in friendship development and stress reduction. Results indicated that there was no significant change in the perception of peer victimization risk in language base students following the training.

**Strengths:** This article investigated the effectiveness of an intervention strategy for peer victimization, something that is needed in this area. The statistical analysis that was conducted was appropriate.

**Limitations:** One of the limitations of this study is that it does not report the specific type of language problem each child in the language base had. Another limitation is the small sample size (n=6), and that all the language class participants attended the same educational institution. Finally the article does not describe the "fogging training" in adequate detail, omitting both details of the content and the duration of the training.

### **Discussion**

The most significant limitation for drawing conclusions across studies was the inconsistent selection criteria for the SLI/language base groups. Without consistent criteria for selection of participants it is not clear that all the participants had specific language impairment, therefore it creates doubt about the internal validity of the research. A second concern is that five of the six studies were from the UK, which raised concerns about the external validity (generalization) of the results for students in Canada. The use of the *MLIS* in five of the six studies has both limitations and strengths. It allows comparisons to be made more easily between studies since they are using the same measure. Unfortunately the *MLIS* does not include measures of verbal victimization, and the only norms for a typically developing population come from a small sample

(n=50) by Knox and Conti-Ramsden (2003) . All of the studies shared a common limitation because they all used self-reports to gather their results. This creates uncertainty about the reliability of the peer victimization risk reported. All of the studies in this paper used uncontrolled observational designs; these generally have lower internal validity than controlled, experimental designs, but are the most appropriate design type for prevalence studies (Dollaghan, 2007). The results of the Lindsey et al. (2008) research are significant because it was the only one of the six which found no significant differences in peer victimization risk between SLI and typical peers. The reason for this discrepancy may be due to the unusually high rate of peer victimization found in the typically developing peers (Verbal 46%, physical 22%). Other estimates of peer victimization rates are much lower. For example, in a national study of peer victimization in the US that include over 15,500 participants, 13% of grade 6 students reported experiencing victimization at least once a week (Nansel et al., 2001) this was consistent with the results found in the other studies in this paper which ranged between 10-16% (Knox & Conti-Ramsden, 2003; Redmond, 2011; Savage, 2005). This reflects the need for large scale norms to be developed for the *MLIS* checklist on typically developing children so that comparisons can be made to impaired populations. Pragmatic impairment was not found to be associated with increased peer victimization in any of the three studies that investigated this relationship (Lindsey et al., 2008; Savage, 2005; Conti-Ramsden & Botting, 2004). Lindsey et al. (2008) suggest that this reflects a lack of understanding of the salience of the victimization related to pragmatic impairment, rather than a lower prevalence.

### **Clinical Implications**

Given the limited strength of evidence provided by the reviewed articles, clinicians should be cautious about how much confidence they put in these results. There is moderately suggestive evidence that children with SLI are at increased risk of peer victimization. SLP's should be aware that peer victimization is a risk for a significant minority of children with SLI and share this information with parents and teachers. There is also suggestive evidence that social/behavioural functioning, hyperactivity, anxiety and depression were associated with increased victimization. Although the three researchers who explored the association between pragmatic skills and victimization found no association (Lindsey et al., 2008; Savage, 2005; Conti-Ramsden & Botting, 2004), the evidence is not strong enough to discourage the use of pragmatic skill training as an anti-victimization strategy. SLPs should also be aware that school placement does not seem to be a factor in peer

victimization rates and therefore should watch for evidence of peer victimization in any setting.

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