

SCHOOL BULLYING AND DISABILITY IN HISPANIC YOUTH:
ARE SPECIAL EDUCATION STUDENTS AT
GREATER RISK OF VICTIMIZATION BY SCHOOL BULLIES THAN
NON-SPECIAL EDUCATION STUDENTS?

by

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STATEMENT BY AUTHOR

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ABSTRACT

There has been a tremendous increase in the study of school bullying over the past 20 years, where research findings have shown that bullying occurs in school settings regardless of particular country or culture. The vast majority of this research has addressed the behavior of the aggressor (i.e., the bully), whereas relatively few studies have focused on children who are the targets of peer aggression (i.e., the victim). Research findings specific to victims of bullying have shown certain characteristics that indicate increased risk of victimization, such as social isolation, insecurity, and physical weakness.

Based on circumstances or manifestations associated with having a disability in a school setting, students with disabilities may have some of the characteristics identified as risk factors for victimization. The purpose of the present study was to determine whether Hispanic students who have disabilities report higher rates of victimization by bullies in comparison to their non-disabled peers, and whether having a particular disability, if any, resulted in more frequent victimization. Forty-three (43) students participated in the study and completed the *Reynolds Bully Victimization Scale* (BVS) and the *Olweus' Bully/Victim Questionnaire* (OBVQ). The data from these measures were evaluated using Analysis of Variance, Multivariate Analysis of Variance, and Fisher's Exact Test.

The results showed that students identified as having a disability obtained significantly higher BVS scores for victimization, and their BVS T-scores reached clinical significance levels significantly more often than those of non-disabled students.

However, results from the OBVQ did not yield significant difference between students with and without disabilities. With respect to having different disabilities (specific learning disability, speech language impairment, & mild mental retardation), the results showed no significant differences in victimization rates for the BVS or the OBVQ. Similarly, no significant differences emerged for victimization across grade/school level. Further research is needed in this area, since the present study appears to be the first research in the United States that has attempted to compare bully victimization rates across students having various different disabilities.

CHAPTER 1: INTRODUCTION

School aggression and violence are documented problems in many countries around the world (e.g., DeVoe, et al., 2003; Goldstein, 1996; Pellegrini, Bartini, & Brooks, 1999; Smith & Morita, 1999). The problem appears particularly serious in the United States, where increasing accounts of school violence has been documented over the last decade (e.g., DeVoe, et al., 2003; Gable, Hendrickson, & Sasso, 1995; Goldstein, 1994; Goldstein, Harootunian, & Conoley, 1994; Moore, Petrie, Braga, & McLaughlin, 2003).

School violence has traditionally been defined as acts of assault, theft, and vandalism (Batsche & Knoff, 1994; Morrison, Furlong, & Morrison, 1997). These behaviors are easily observed and documented, and directly responded to with disciplinary actions at the school level or via referrals to the judicial system. Preventive efforts have involved strict weapon policies, metal detectors, and the presence of law enforcement officers on school campuses (Bemak & Keys, 2000).

Less obvious forms of student aggression have for the most part received little attention from educators and policy makers (e.g., Goldstein et al., 1994; Morrison et al., 1997) until very recently (Limber & Small, 2003). Emerging research on childhood aggression and victimization has indicated such “softer” forms of student aggression have serious negative impact on children’s development and social adjustment (e.g., Boulton & Underwood, 1992; Kochenderfer & Ladd, 1996; 1997; 2003; Kupersmidt & Coie, 1990; Perry, Kusel, & Perry, 1988; Swearer, Song, Cary, Eagle, & Mickelson, 2001), and to be a risk factor for future criminal behavior of the perpetrators (e.g., Olweus, 1991; Patterson, Reid, & Dishion, 1992; Walker, Colvin, & Ramsey, 1995). Bullying, which is

a subcategory of aggressive behavior (Dodge & Coie, 1987; Smith & Morita, 1999), is an example of one such form of aggression that occurs frequently in the school setting (Hoover, Oliver, & Hazler, 1992; Nansel et al., 2001; Olweus, 1992). It has been described in historical accounts and literary work dating back to the 18th century (Ross, 2003), and the word has been used freely in popular publications, where its common meaning appears to be well understood by the general public. The Cambridge Dictionary of American English (2000) defines the verb bully in the following manner: “to threaten to hurt (someone), often frightening them into doing something you want them to do” (p. 107). Definitions in the literature tend to extend bullying to involve aggressive behavior that is intended to cause distress to a victim and is repeated on more than one occasion (Ross, 2003). Bullying can therefore be a particularly vicious form of aggression because the behavior is directed repeatedly toward a particular victim. Bullying further tends to present a special problem, as this behavior is often covert.

The research literature has revealed that victims of bullying, as well as bystanders, generally do not report bullying (e.g., Besag, 1989; Rigby & Slee, 1999; Smith & Sharp, 1994). Moreover, it has been reported that educators tend to ignore the problem, devoting attention instead to disruptive behaviors and more overt forms of student aggression (e.g., Colvin, Tobin, Beard, Hagan, & Sprague, 1998; Goldstein, 1996; Hazler, Hoover, & Oliver, 1992; Lane, 1989), which, in turn, enable such victimizations to recur. Bullying thus often continues for prolonged periods of time without any consequences for the perpetrators.

The Norwegian Campaign

The main body of research on school bullying originated in Sweden and Norway, where the initial interest was prompted by the writings of a Swedish physician more than 30 years ago, who made numerous observations of bullying during routine school visits (Heinemann, 1972). His publications laid the groundwork for further investigations of this topic. One of the first researchers to study this area was Olweus (1973; 1978) who initiated a series of longitudinal studies of 12 to 14 year-old boys in Swedish schools. The results revealed that Swedish school children did experience bullying, with roughly 10% of Olweus' sample reporting either being the victim of bullying or bullying someone else. These results, as well as those from subsequent publications, generated interest that spread to other Scandinavian countries where problems of bullying were addressed in the mass media (Olweus, 1999a). In this regard, during the early 1980s, three dramatic suicides of Norwegian school children, which were attributed to intense and chronic bullying, fueled a public outrage (Olweus, 1991). However, the earlier results from Olweus' studies (Olweus, 1978) and emerging research from Finland (e.g., Lagerspetz, Björkquist, Berts, & King, 1982) indicated that these tragic incidents could not be attributed to isolated instances of bullying (Ross, 1996).

In response to these latter suicides, the Norwegian Ministry of Education launched a nationwide campaign against bullying under the leadership of Olweus, laying the foundation for a comprehensive research program addressing this problem and including approximately 130,000 students from all over Norway (Olweus, 1999a). A concurrent comparison study of 17,000 students was also begun in Sweden (Olweus, 1999b). These

Scandinavian developments, together with a European conference on this issue in Norway in 1987 (Smith & Morita, 1999), stimulated discussion and research on bullying in a number of other countries in the late 1980s and early 1990s (e.g., Boulton & Underwood, 1992; Lane, 1989; Rivers & Smith, 1994; 1991; 1997).

Research Findings and Issues

Research on bullying has been reported in such countries as Australia (Rigby & Slee, 1991; 1999), the United States (Hoover, Oliver, & Hazler, 1992; Nansel et al., 2001), Italy (Genta, Menesini, Costabile, & Smith, 1996), Japan (Morita, Soeda, Soeda, & Taki, 1999), and Canada (Bentley & Li, 1995). The results have generally been consistent with the basic findings of the Scandinavian research (e.g., Olweus, 1978), indicating bullying to occur in school settings independent of countries or cultures. Prevalence rates, however, have varied appreciably between different countries, with rates of victimization ranging from nine percent in Norway (Olweus, 1992) to 77 to 78 percent in the United States (Crockett, 2003; Hoover et al., 1992). Although cultural, linguistic, and environmental variables would be expected to affect prevalence rates of bullying, a difference of up to 68% is more likely to indicate problems with the psychometric properties associated with the assessment methods and instrumentation (Sveinsson & Morris, in press). Such concerns have indeed been raised in the literature, in particular the lack of attention to such psychometric issues as reliability and validity (Farrington, 1993). In addition, there has been emerging research on peer aggression, peer rejection, and victimization in the United States which also focuses on behaviors and variables intrinsic to the definition of bullying (e.g., Crick & Bigbee; Hodges & Perry, 1999).

As pointed out earlier, bullying has been included in some literature as a specific subcategory of aggression, and has been shown to have characteristics that are not necessarily present in other forms of peer aggression, rejection, or victimization (Olweus, 1991; Pellegrini, et al., 1999; Salmivalli, Huttunen, & Lagerspetz, 1997). For example, while research on peer aggression and victimization uses a more precise measure of aggression variables (e.g., physical aggression, verbal aggression, threats, etc.), it has typically studied only the most overt components of bullying. Given the importance of covert forms of aggression in both popular and investigative definitions of bullying (e.g., threats, verbal aggression), and empirical confirmation thereof (Bentley & Li, 1995; Genta et al., 1996; O'More, Kirkham, & Smith, 1997), the term "bullying" is appreciably different from other forms of aggression. However, substantial variation in the definition of the term has been noted in the literature (Arora, 1996; Ross, 2003), and discussion regarding conceptualization and definitional issues are ongoing in the current literature (e.g., Griffin & Gross, 2004; Sveinsson & Morris, in press).

Bullying of Children Having a Disability

As mentioned above, the study of school bullying and other forms of peer aggression has been occurring for more than 30 years (see Crick & Dodge, 1994; Farrington, 1993; Goldstein & Conoley, 1997; Griffin & Gross, 2004, for reviews). The vast majority of this research has addressed the behavior of the aggressor (i.e., the bully), and has indicated that aggressive children selectively target a minority of children while leaving other children alone (e.g., Dodge, Coie, Pettit, & Price, 1990; Olweus, 1978; Perry et al., 1988). In contrast, relatively few studies have focused on children who are the targets of

peer aggression (i.e., the victim). The available research in this area indicates that these victims tend to be submissive and easily upset (e.g., Perry et al., 1990; Schwartz, Dodge, & Coie, 1993), physically weaker and more insecure than other children (Olweus, 1993, 1999b), socially isolated and/or have few friends (Perry, Hodges, & Egan, 2001; Olweus, 1999a), and are socially rejected by others (Smith, 1999; Wilton, Craig, & Pepler, 2000). These victims, therefore, appear to be “easy targets” posing less risk of social consequences for their attackers.

Children with disabilities may have some of the characteristics that have been identified as risk factors for victimization, such as physical weakness or impaired social relations. For example, a meta-analysis of studies on children with learning disabilities (LD) and social skill deficits (Kavale & Forness, 1996) indicated that almost 80% of students with LD appeared to be rejected by their peers. Furthermore, peer ratings showed LD students to have lower social status, be less popular, not as competent in communication, and not as cooperative. Similarly, in a study addressing attitudes and behavior of children toward peers with disabilities, Roberts and Smith (1999) reported that 47% of non-disabled children indicated they spent no time at all with classmates with disabilities. Placement in self-contained classes is furthermore likely to result in lack of opportunities for socialization with the general student population, and thus may increase the risk of social isolation.

The visibility of a disability may also present different risk factors, such as stereotypical generalizations and “stigma.” For example, based on a series of international studies on children’s views and social preference toward peers with visible

physical differences, Harper (1999) reported that physical or observable differences appeared to be a factor in social acceptance. Specifically, the more limiting the disability, the more peers tended to avoid interaction with children who had those disabilities.

A small body of research has further examined the specific relationship between children having disabilities and being victims of bullying. The findings from these studies have generally shown that students having a disability are at higher risk for victimization when compared to their non-disabled peers (e.g., Dawkins, 1996; Nabuzoka & Smith, 1993; Sweeting & West, 2001; Whitney, Smith, & Thompson, 1994). However, research in this area is limited to only about 12 studies, most of which were conducted in the United Kingdom. In addition, these studies show considerable variation in regard to methodology and type of disability, making comparison between these studies difficult. In addition, only handful of studies have specifically addressed whether any given disability places children at a higher risk for bullying. Furthermore, the findings from these studies have been inconsistent where the risk of victimization associated with different disabilities varies from one study to another (e.g., Sweeting & West, 2001; Whitney et al., 1994).

Purpose of the Present Study

The research on bullying and disability remains limited and shows considerable variation in regard to methodology and type of disability under study. Notwithstanding, available research findings indicate that children with disabilities tend to be at greater risk for being bullied when compared to their non-disabled peers. However, only a small number of studies have addressed whether a specific disability places children at a higher

risk for bullying, and virtually no research has addressed school bullying among Hispanic students.

The purpose, therefore, of the present study was to determine whether Hispanic students who have been identified with disabilities based on the *Arizona Revised Statutes* (ARS §15-761) report higher rates of victimization in comparison to their non-disabled peers. Specifically, students with specific learning disabilities, speech language impairments, emotional disabilities, mild mental retardation, hearing impairments, and orthopedic impairments were compared to non-disabled students in regard to self-reported rates of victimization. Furthermore, victimization rates were compared across disability groups to determine whether a specific disability, if any, presents students at a higher risk for victimization by bullies. In addition, bullying research has shown higher rates of victimization for lower grades (e.g., Boulton & Underwood, 1992; Olweus, 1993; Whitney & Smith, 1993), where the present study compared victimization rates across school levels (i.e., elementary vs. secondary). Specifically, the following research questions were examined:

Hypothesis 1. Students identified with disabilities report significantly higher victimization ($p < .05$), as reported on the *Reynolds Bully Victimization Scales for Schools* (Reynolds, 2003) and the revised *Olweus' Bully/Victim Questionnaire* (Olweus, 2000), when compared to non-disabled regular education students.

Hypothesis 2. There are no significant differences in victimization ($p < .05$) between students with specific learning disabilities, speech language impairments, emotional disabilities, mild mental retardation, hearing impairments, and orthopedic impairments,

as measured by the *Reynolds Bully Victimization Scales for Schools* (Reynolds, 2003) and the revised *Olweus' Bully/Victim Questionnaire* (Olweus, 2000).

Hypothesis 3. Students in elementary schools (grades 3-5) report significantly higher victimization ($p < .05$), as reported on the *Reynolds Bully Victimization Scales for Schools* (Reynolds, 2003) and the revised *Olweus' Bully/ Victim Questionnaire* (Olweus, 2000), when compared to students in middle and high school (grades 6-12).

CHAPTER 2: REVIEW OF THE LITERATURE

This chapter reviews the literature on school bullying, its definition, prevalence, cultural and demographic implications, assessment issues, and current research on bully victimization of children who have disabilities.

Definition of Bullying

There appears to be no one standard definition of bullying in either the research literature or popular writings (e.g., Arora, 1996; Farrington, 1993; Flynt & Morton, 2004; Griffin & Gross, 2004; Harachi, Catalano, & Hawkins, 1999; Macklem, 2003). One of the first attempts to define bullying was that of Heineman (1972), a Swedish physician who wrote several publications on the topic in the late 1960s and early 1970s. He used the term “mobbing” (i.e., mobbing), which as the word indicates referred to an act of group violence against one deviant individual. Subsequent research in Sweden, however, did not adopt Heineman’s perspective. Instead, Olweus (1978) contended that adopting a group emphasis would obscure the contribution of individual members to bullying. He argued that such acts of group violence were likely to be initiated by one or few individuals, whose contributions would be overlooked if bullying would be regarded as aggression by a homogeneous group. Olweus (1973) nevertheless used the term “skolmobbing” (school-mobbing) in his initial research efforts, but identified individual aggressors as “översittare.” In a subsequent English translation, Olweus (1978) used the term “bully” to describe the aggressor, which he defined as “a boy who fairly often oppresses or harasses somebody else; the target may be boys or girls, the harassment physical or mental” (p. 35). Thus, although the word “mobbing” was adopted in

Scandinavian research, its meaning deviated from the English “mob” root of the word, as it could be executed by a single person. Hence, Scandinavian researchers have generally used the term “bullying” in their English publications, and argue that bullying is the more appropriate translation of “mobbing” than mobbing given the use of the word in both research and everyday language in Scandinavia (e.g., Olweus, 1991; 1992; 1999b; Pikas, 1989).

As research on bullying originated in Scandinavia, so have definitions from the region been influential in shaping the literature. In fact, the most commonly used definition appears to be that of Olweus (1999b) in which “a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students” (p. 10). According to Olweus (1999b), the negative actions must further meet the following criteria to be considered bullying: “(1) It is an aggressive behavior or intentional ‘harm doing’ (2) which is carried out ‘repeatedly and over time’ (3) in an interpersonal relationship characterized by an imbalance of power” (p. 11). Olweus further makes a distinction between “direct” and “indirect” forms of bullying, depending on whether the actions are “relatively open” or involve “social isolation.” Harachi et al. (1999) argue that Olweus’ definition has, in one way or another, been adopted by the majority of current researchers in the area of bullying. This applies in particular to those research studies that have used *Olweus’ Bully/Victim Questionnaire*, which provides the following definition for the respondent:

We say a student is being bullied when another student, or a group of students, say nasty and unpleasant things to him or her. It is also bullying when a student is hit,

kicked, threatened, locked inside a room, and things like that. These things may take place frequently and it is difficult for the student being bullied to defend him or herself. It is also bullying when a student is teased repeatedly in a negative way. But it is not bullying when two students of about the same strength quarrel or fight (Olweus, 1999a, p. 31).

This definition has been included in the majority of the research conducted in the U. K. (e.g., Boulton & Underwood, 1992; Collins, McAleavy, & Adamson, 2004; Whitney & Smith, 1993), Italy (Genta et al. 1996; Menesini et al., 1997), Ireland (O'Moore, Kirkham, & Smith, 1997), the Netherlands (Junger-Tas, 1999), and in increasing number of studies in the United States (e.g., Nansel et al., 2001; Pellegrini et al., 1999; Unnever & Cornell, 2003). The emerging research using different instruments has nevertheless shown some variation. For example, Hoover et al. (1992) provided a broader operational definition, where bullying was described as: "...any activity from teasing to physical attacks where one or a group of youngsters pesters a victim (or a 'whipping boy') over a long period of time" (p. 8). An even more inclusive description was used by Bosworth, Espelage, and Simon (1999), who defined bullying as "a subset of aggressive behavior that has potential to cause physical or psychological harm to the recipient" (p. 343). In contrast, a more restrictive definition has been proposed by Crick and Dodge (1999), who refer to bullying as "a type of proactive aggression in which aggressive acts are employed to achieve interpersonal dominance over another" (p. 129).

Harachi et al. (1999) point out that although many studies make general reference to Olweus' definition of bullying, many also fail to include clarification of some key

elements, such as that bullying behavior occurs repeatedly over time. Yet this very component of repetition appears to be a great source of debate in the literature. For example, Arora (1996) maintains that the long-term effect on the victim versus the notion of repetition would be a more essential feature of bullying, as a victim is likely to experience emotional trauma as result of even one incident and may fear renewed attacks. Consistent with this view, Sharp, Thompson, and Arora (2000) point out that if a person is victimized on numerous occasions, but always by different perpetrators, a definition based on repetition would indicate that each perpetrator's behavior did not constitute bullying. Ross (2003), takes this a step further, and argues that a child's perception of bullying should be considered as such, regardless of whether it occurred once or repeatedly. This last perspective validates the importance of the child's perception, which is very important in the context of the most common assessment method where students respond to direct inquiries about their experiences associated with bullying (i.e., the *Olweus' Bully/Victim Questionnaire*). Yet such a perspective would make it difficult to compare findings between different studies, as pointed out by Besag (1989), who argues that one of the more obvious obstacles to compare research results is the variation between studies in defining what exactly constitutes bullying behavior.

Cultural and Linguistic Implications

School bullying has gained increased attention from researchers outside of Scandinavian countries, including Spain (Ortega & Mora-Merchan, 1999), Italy (Genta et al., 1996), France (Fabre-Cornali, Emin, & Pain, 1999), Poland (Janowski, 1999), Australia (Rigby & Slee, 1991; 1999), and Japan (Morita, Soeda, Soeda, & Taki, 1999).

Although this increased research across various nations has provided further support that school bullying may be a universal problem in schools, it has also highlighted problems associated with defining of bullying. The term itself is shaped by English colloquialism, and an exact meaning is generally not found in the lexicon of other languages. In France, for example, school bullying is referred to as “faits de violence” (i.e., acts of violence), and includes all forms of violence in the schools, as well as disruptive behaviors that interfere with school activities (Fabre-Cornali et al., 1999). This conceptualization appears to hold for both Poland (Janowski, 1999) and Germany (Lösel & Bliesener, 1999) as well, where direct translation of bullying is not possible and discussions generally occur within the broader framework of school violence.

In Spain, Ortega and Mora-Merchan (1999) did not only encounter challenges with the translation of school bullying, but also reported problems with defining the term within their cultural environment, as the concept simply did not exist within their schools and was met with a general lack of social understanding and indifference. Smith, Cowie, Ólafsson, and Liefoghe (2002) have addressed these concerns of comparability in bullying terminology, where terms for bullying and social exclusion were compared across 14 countries and 13 languages. The results showed considerable variability, and suggested that prevalence estimations of bullying in some countries (e.g., Italy) may be inflated because of the use of more inclusive “translations.” Hence, there appears to be a substantial discrepancy in the conceptualization of bullying across different cultures, which raises the question whether comparison of data and prevalence rates render any meaningful conclusions.

Recent international research efforts have generally attempted to address the definitional problems associated with “bullying” through adapting and translating Olweus’ questionnaire with its prefix. This process therefore provides a definition of the term to the subjects at the time of administration (e.g., Genta et al., 1996; Tomás de Almeida, 1999). However, as Olweus (1999a) points out, even data collected across nations with the *Olweus’ Bully/Victim Questionnaire* must be compared with caution, as familiarity and attention to the phenomena varies from culture to culture. Addressing such definitional difficulties in a comparative study between England and Germany, Wolke, Woods, Stanford, and Schultz (2001) take a different approach, and recommend precise behavioral descriptions rather than using a single term (i.e., bullying), as it may pose less risk to confound comparisons by colloquia and different meanings between languages.

Different forms of Bullying: Direct versus Indirect Aggression

While there is a considerable debate on what constitutes bullying, the vast majority of the field concurs (e.g., Besag, 1989; Greene, 2000; Lane, 1989; Olweus, 1999b; Salmivalli et al., 1996; Smith & Brain, 2000; Smith & Sharp, 1994) that bullying involves general components of the following: (1) disparity of power between victim and perpetrator, (2) intentional and unprovoked aggression by the perpetrator(s), and (3) often repeated incidents. A number of publications have furthermore proposed a distinction between “direct” and “indirect” forms of bullying in their definitions (e.g., Olweus, 1999b; Ross, 2003; Salmivalli et al., 1996; Wolke et al., 2000), where the former refers to face-to-face physical or verbal confrontations, and the latter is described as less visible

harm-doing, such as spreading rumors and social exclusion. Yet in practice, this distinction is generally unclear when bullying is operationalized, such as in research using the *Olweus' Bully/Victim Questionnaire*. The operational definition in this questionnaire (Olweus, 1999a) includes acts of verbal and physical aggression ranging from hitting to teasing, while none of the specified behaviors appear to represent “indirect bullying.” Bullying research using different assessment instruments have used other operational descriptors of bullying, which tend to encompass a wider range of direct and indirect aggressive behaviors. Bosworth et al. (1999) cite examples such as name-calling, social exclusion, property damage, and the more obvious forms of hitting and kicking. The use of such inclusive operational definitions in current research, however, raises serious concerns and may have implications for both reliability and validity of the findings obtained.

In this regard, Juvonen, Nishina, and Graham (2000) reported that 77% of their sample had experienced “nasty rumors,” while 66% were subject to “name calling” during the school year. Results from Espelage et al. (2000) showed that only 19.5% of the middle school students in their study indicated that they had not bullied their peers in the last 30 days. In other words, 80% of the sample engaged in bullying behaviors as defined by the study, including such behaviors as “I called other students names;” “I teased students;” and “I said things about students to make other students laugh” (p. 328). Prevalence rates that suggest 80% of the student population to be bullies would indeed be consistent with the validity concerns introduced above, and indicate that such inclusive operationalization of bullying is counterproductive. This inclusive tendency in bullying

research may have been an attempt to capture the full range of harmful behaviors that children direct toward their peers. For example, Besag (1989) argues against more rigid definitions, stating that “some of the most traumatic and terrifying instances of bullying have been seemingly innocuous acts” (p. 4). Yet, such overly inclusive approach is likely to fail to discriminate bullying from normative peer conflicts in children’s social development.

Recent research on peer aggression and victimization (e.g., Crick & Grotpeter, 1996; Grotpeter & Crick, 1996; Crick & Bigbee, 1998), however, has employed a clear distinction between overt aggression and the more indirect or relational forms of aggressive behaviors included in current definitions of bullying. That is, “overt aggression” consists of behaviors that are intended to harm others through physical hurt or a threat thereof (e.g., shoving, threatening to beat up a peer), while “relational aggression” involves behaviors that intentionally harm another through manipulations of peer relationships (e.g., maliciously spreading lies and rumors, social exclusion). This categorization of peer aggression has received empirical support, where direct and indirect forms of aggression have been shown to be highly related to gender, and thus tend to be carried out by different individuals. For example, Crick and Bigbee (1998) reported significantly higher rates of overt aggression for boys than girls, whereas the reverse was true for relational aggression. Consistent with these findings, bullying research consistently reports much higher rates of overt aggression for boys (e.g., Bentley & Li, 1995; Boulton & Underwood, 1992; Genta et al., 1996; Olweus, 1993; O’Moore et al., 1997; Pellegrini et al., 1999; Whitney & Smith, 1993).

Prevalence and Incidence of Bullying

Research on bullying originated in Sweden with Olweus' (1973) studies in Solna, Sweden, which estimated the incidence of bullying to be about five percent among sixth to eighth grade boys. This initial research used teachers' ratings, and was comprised of 1026 subjects from three different studies. Later research in Sweden, which was executed in conjunction with a Norwegian nationwide research project, used a self-report format to establish incidence (i.e., The Olweus' *Bully Victim Questionnaire*), which was administered to 17,000 students and found substantially higher rates (Olweus, 1993). The Norwegian project, the Nationwide Campaign Against Bullying, was launched by the Norwegian Ministry of Education in 1983 in response to a public outrage following media reports of three victims committing suicide (Ross, 1996). This nationwide campaign was conducted by Olweus (1993), who selected a representative sample of 715 schools comprising approximately 130,000 children ranging in age from eight to 16, who all completed the *Olweus' Bully/Victim Questionnaire*.

Olweus (1993) reports that 15% of the students were involved in bully/victim problems "now and then" or more frequently, where approximately 9% were victims. Roughly 3% reported that they were bullied "about once a week" or more frequently. Significant grade differences were noted, where percentage of victims (i.e., bullied "now and then") declined steadily from second (boys 17.5%; Girls 16%) through ninth grade (boys 6.4%; Girls 3%). The decline was more pronounced in the earlier grades, where the average percentage of students reporting victimization in grades two through six was 11.6% compared to 5.4% for grades seven through nine. The results also reveal gender

differences, where boys were more frequently perpetrators (e.g., 11.7% males vs. 3.4% females in fourth grade). Recent data from an ongoing cohort-longitudinal intervention in Norway shows similar rates for victimization, or about ten percent (Solberg & Olweus, 2003). However, the sample (n = 5,172) consisted of students from fifth through ninth grades, and thus did not include the lower grades (i.e., grades two, three, and four) that were a part of the larger “Norwegian Project” (Olweus, 1993). Given that prevalence rates for these lower grades were substantially higher, the findings of Solberg and Olweus (2003) indicate an increase in Norwegian prevalence rates over the last ten years.

Lagerspetz et al. (1982) reported prevalence of victimization in Finland at 3.9% for the higher grades (ages 12 to 16) based on peer ratings in a sample of 434 students, which is comparable to the rates for same age range in the Norwegian Project (Olweus, 1993). Later research in Finland using peer nomination with 573 sixth grade students (12-13 years old) documented victimization at 11.7% (Salmivalli et al., 1996), which is somewhat higher than self-reported incidence in the Norwegian Project (7%), but consistent with recent Norwegian rates (11%) for sixth grade students (Solberg & Olweus, 2003). However, a Finnish study which adopted the *Olweus’ Bully/Victim Questionnaire* (Olafsen & Viemerö, 2000) found considerable higher rates of bullying in a sample of 510 fifth and sixth grade students (10-12 years-of-age), where 17% reported being bullied “sometimes” or more often. A nationwide study addressing bullying and children’s psychiatric symptoms (Kumpulainen et al., 1998) found similar rates among eight years old children, where 18.9% were identified as victims and 15.7% as bullies.

Studies from the United Kingdom have also tended to show higher prevalence rates than the Norwegian Project. Boulton and Underwood (1992), using a modified version of the *Olweus' Bully/Victim Questionnaire*, found that one fifth of their sample ($n=296$) from three English primary schools (8-12 years old) reported being bullied “sometimes” or more often. Consistent with the Norwegian Project (i.e., Olweus, 1993), a significant effect for age (grade) emerged where younger children were more likely to be victimized.

Whitney and Smith (1993) found even higher rates with the Olweus Questionnaire for the same age group in an urban area in England. Their sample consisted of 6758 students from 24 primary and secondary schools, where 27% of the primary school students (8-11 years-old) reported that they had been bullied “sometimes” or more often, and 10% reported being bullied at least once a week. Consistent with previous findings, the incidence of victimization was found to decrease with higher grades, where the comparable rates for secondary students (11-16 years old) were 10% and 6% respectively. Significantly more boys admitted to bullying others (16% vs. 7% in primary school), again consistent with the Norwegian Project. Johnson et al. (2002) reported similar results for primary school children with a different self-report questionnaire (e.g., *My Life in School*), where one third of the sample ($n = 523$) indicated that they had been victims of bullying.

Smith and Shu (2000) obtained a broader sample from 19 urban and rural schools in different parts of England, all of which had some form of anti-bullying policy. The sample consisted of 2308 students from both primary and secondary schools (10-14 years-old) who completed a modified version of the *Olweus' Bully/Victim Questionnaire*.

Reported prevalence of victimization was considerably lower than that of Whitney and Smith (1993), or 12.2% for the whole sample. The incidence was significantly higher for the younger students, where 18.7% of the 10 year-olds reported being bullied compared to 7.5% of the 14 year-olds.

A different approach to determine prevalence was carried out by Wolke, Woods, Bloomfield, and Karstadt (2000), where prevalence was established through structured interviews with six to nine year old children from 31 urban primary schools. Subjects' responses were classified according to a direct- or relational bullying criteria, where the former corresponded to Olweus' (1999b) definition of bullying. The sample consisted of 1982 children, of which 1639 interviews were included in the final data analysis. Roughly 4% were identified as direct bullies, 10% as direct bully/victims, and 40% as victims. Combined, 50% of the subjects were thus identified as victims, not counting relational victimization. These higher rates can in part be explained by the low age of the sample ($M = 7.6$ years), as prevalence rates have consistently been reported to be higher for younger children (e.g., Boulton & Underwood, 1992; Olweus, 1993; Whitney & Smith, 1993).

For example, although Whitney and Smith (1993) reported victimization at 27% for primary school students, prevalence rate for the youngest grade (seven to eight years old) was at 36%. However, given that the age range for Wolke et al. (2000) was from six to nine years-of-age, incidence of 50% for the whole sample remains relatively high in comparison to the general literature. Conversely, in a study using similar format of structured interviews to compare prevalence of bullying between England and Germany,

Wolke et al. (2001) reported similar findings, but for England only. Specifically, 53.7% of English eight-year-old students (N = 1303) reported being bullied, compared to 29% of their eight-year-old German counterparts (N = 1479).

The relatively higher rates for the United Kingdom, however, have not been replicated in the neighboring Republic of Ireland. A nationwide study (O'Moore, Kirkham, & Smith, 1997), using the English version of the *Olweus' Bully/Victim Questionnaire*, sampled 531 schools, and found the incidence of victimization (sometimes or more often) at 12.7% for primary school (ages 8-12), and at 4.8% for post-secondary school (ages 12-18). Similarly, a recent study from Northern Ireland (Collins et al., 2004), using a revised English version of the *Olweus Bully/Victim Questionnaire*, reported victimization at 15% for "two or three times a month" or more often for children in primary schools. A nationwide study from Iceland (Ólafsson, Ólafsson, & Björnsson, 1999), also found lower prevalence rates among fifth, seventh, and ninth grade students (ages 10 to 14), where 7.7% of the sample (N ≈ 1800) reported being bullied sometimes or more often, while 5.2% reported bullying others. Consistent with the literature, Ólafsson et al. (1999) found significant age differences, where fifth grade students reported victimization at 13.4% compared to 3.3% for ninth grade students.

Research from Italy, however, has reported prevalence rates considerably higher than those reported in the United Kingdom. For comparison, at least one study has been carried out in Italy that closely followed the procedures of Whitney and Smith discussed above. The study used a sample of 1379 students from primary and middle schools from both northern and southern Italy (Genta et al., 1996), and reported prevalence rates for

being bullied “sometimes” or more often at 45.9% for the northern primary schools (ages 8-11), whereas their counterparts in the south reported slightly lower rates at 37.8%. For this same age group, prevalence rates were also high for more frequent victimization (i.e., “once a week” or more), or 19.5% for the north and 13.9% in the south. A high prevalence rate was also reported for perpetrators, where one in five of the primary school students admitted to bullying others. Consistent with other similar studies, victimization declined substantially in the older grades, although the rate (approximately 28%) remains relatively high when compared to Northern Europe. Unpublished studies by Fonzi et al. (as cited in Fonzi et al., 1999) confirm these high prevalence rates for Italy, where an average value from five sub-samples (including the two from above) yields a victimization rate of 41.6% (sometimes or more often) for children in Italian primary schools.

These high prevalence rates have been confirmed in neighboring Malta, where Borg (1999) conducted a nationwide study using an adapted Maltese version of the *Olweus’ Bully/Victim Questionnaire*. Sampling 6282 students from 29 primary and secondary schools (ages nine to 14), Borg found prevalence rates at 41,5% for “occasional” victimization, and at 19% for “frequent” victimization. However, findings from other South-European countries executing similar research designs have not replicated this high incidence of bullying.

A large scale study in Portugal (Tomás de Almeida, 1999), also employing the Olweus questionnaire, found prevalence rate for being bullied at 21.7% in a sample of 6200 six to 11 years old students. A more recent Portuguese research involving roughly

4000 students with a mean age of 11 years reported consistent findings, where about 20% of those students reported being bullied three or more times during the school term in question (Pereira, Mendonça, Neto, Valente, & Smith, 2004). A similar but smaller study from Spain (Ortega & Mora-Merchan, 1999) reported incidence of bullying at 18.3%, which accounted for both victims and perpetrators.

Similar numbers have emerged from Canada, where Bentley and Li (1995) administered the *Olweus' Bully/Victim Questionnaire* to 379 fourth and sixth grade students (ages eight to 12 years). Results of the Olweus questionnaire indicated that 21.3% were bullied and 11.6% bullied others “sometimes” or more often during the current school term. Available data from other countries, such as Japan (Morita et al., 1999), Australia (Peterson & Rigby, 1999; Rigby & Slee, 1999), Switzerland (Alsaker & Brunner, 1999), and the Netherlands (Junger-Tas, 1999; Veenstra, Lindenberg, Oldehinkel, De Winter, Verhulst, & Ormel, 2005) suggests comparable prevalence rates, where reported victimization is generally within the range of 15 to 30 percent for primary school samples.

It is only within the last five years that research on bullying has begun to flourish in the United States, where past research emphasis was more often on peer aggression rather than bullying *per se* (e.g., Dodge & Coie, 1987; Dodge, Coie, et al., 1990; Kupersmidt & Coie, 1990). Hoover et al. (1992) were one of the first American researchers to use the term “bullying” consistent with emerging literature in Europe. They administered a self-report measure to 207 mid-western middle and high-school students (ages 12-18), and reported prevalence rates of 77%. Based on these findings, Hoover et al. argued that the

incidence of victimization would be at least four times as common in the US when compared to European studies. These researchers constructed their own instrument for their study, which did not allow for respondents to indicate frequency of incidence (e.g., “sometimes;” “once a week”). The reported prevalence rate for the sample was established through a “yes” response to the question, “Have you ever been bullied during your school years?” (p. 8), which does not correspond to European prevalence rates generally based on subjects reporting moderate frequency during current term or school year. In fact, consequent American studies have reported much lower incidence rates, even for quite younger samples.

Using the *Olweus' Bully/Victim Questionnaire*, Pellegrini et al. (1999) reported victimization at 24% for a sample of 154 fifth grade students in rural Georgia, whereas 14% of the sample was identified as bullies. These prevalence rates are somewhat higher than those reported for Northern Europe, yet much lower than reports from Italy and Malta. Another American study (Berthold & Hoover, 2000), reported prevalence rates more in line with Southern Europe, where victimization was reported at 35.4% and “bullying others” at 19.8% for a sample of 591 students in grades four through six. It is important to point out that these prevalence rates were based on a “yes” response to “I have been bullied at school this year” and “I have bullied others at school this year” (p. 69). Thus, analogous to the study by Hoover et al. (1992) discussed previously, these prevalence rates cannot be compared to other studies basing prevalence on specific frequency criteria.

As a part of an international research project coordinated by the World Health Organization, the National Institute of Child Health and Human Development supported a large-scale survey addressing health behavior of school-age children. The sampling pool involved sixth through tenth grade students in all larger public and private schools across the United States, who were administered a 102 item questionnaire on demographic variables and health behavior, which included bullying (Nansel et al., 2001). All items addressing bullying were preceded by Olweus' (1993) definition of bullying, where students were asked to report if and how often they had been bullied or bullied others during the current term. Nansel et al. (2001) reported prevalence for victimization "sometimes" or more often to be at 16.9%, whereas bullying others at the same frequency was at 19.4%. Of those, 6.3% reported both being bullied and bullying others. More serious bullying (i.e., one a week or more often) was reported at 8.8% (bullying others) and 8.4%, respectively. Consistent with previous prevalence research, bullying occurred more frequently in the lower grades; however, data on incidence by grade were not presented. Given the relatively higher age of this sample, these prevalence rates are consistent with Pellegrini et al. (1999) presented earlier, which used similar methods of assessment.

More American studies have now begun to use the term bullying, where at least three studies published information on prevalence rates in the last two years. For example, Unnever and Cornell (2003) evaluated prevalence of victimization among middle school students with special emphasis on self-control and "Attention Deficit Hyperactivity Disorder," using the *Olweus' Bully/Victim Questionnaire*. Approximately 2500 students

participated in the study, where 22% of the general student population reported being bullied two or three times a month or more often. The rates for the target population, however, were considerably higher, or 34%. Exploring social network predictors of bullying and victimization, Mouttapa, Valente, Gallaher, Rohrbach, and Unger (2004) reported victimization rates at about 26% in a sample of 3100 sixth grade students in Southern California who completed four items from the *Olweus' Bully/Victim Questionnaire*. Another study from Southern California (Toblin, Schwartz, Gorman, & Abou-ezzeddine, (2005) reported similar rates using the Peer Nomination Inventory (PNI) with a sample of 240 fourth and fifth grade children, where 20% were identified as either aggressive or passive victims of bullying.

Although employing different terminology, research on peer aggression and victimization in the United States has made important contributions to bullying research. For example, many reviews on bullying (e.g., Batsche & Knoff, 1994; Farrington, 1993; Olweus, 1993; Ross, 1996), cite the research of Perry et al. (1988) who administered an adapted version of the *Peer Nomination Inventory* (PNI) and a self-report questionnaire to 165 children in grades three through six, along with teacher nominations. The study estimated that 10% of the sample “appear[ed] to be severely abused by aggressive peers” (p. 812) which is much lower than the American rates for bullying reported above.

Using the terminology of peer victimization, Kochenderfer and Ladd (1996) conducted individual interviews with 200 Midwestern Kindergarten children using the *Perceptions of Peer Support Scale* (PPSSC), addressing general, direct-physical, direct-verbal, and indirect-verbal forms of peer victimization. A composite score of direct

victimization was derived from the PPSSC, where 22.6% of the sample was identified to have experienced moderate to high levels of victimization (i.e., above a “sometimes” midpoint). As younger children report significantly higher rates of victimization (e.g., Olweus, 1993; Whitney & Smith, 1993), these prevalence rates would appear lower than reports from many European countries. Similarly, Crick and Bigbee (1998) evaluated relational and overt forms of peer victimization using both self-reports and peer nominations in a sample of 383 fourth and fifth grade students. Victims were identified based on victimization scores one standard deviation above the mean on both measures, yielding a prevalence rate of 11.7%. Of those, 5.2 were victims of overt aggression, while 6.5 were victims of relational aggression. In addition, there were significant gender differences between the two types of victimization, where incidence of overt victimization was much higher for boys, while the reverse was true for girls. Hence, these studies indicate that rates of victimization in the United States appear comparable to prevalence data from Northern Europe. It is important to point out, however, that there are significant differences in both conceptualization and methodology between the general bullying tradition and victimization research, where peer nomination and multi-informant approach may produce lower rates than single self-reports such as the *Olweus’ Bully/ Victim Questionnaire*.

In summary, the current literature appears to show considerable variation in prevalence rates. Age appears to be a significant factor, where younger children tend to report much higher rates of victimization. There are, however, recent studies that have indicated these higher rates may be an artifact of self-reports, the typical assessment

methods used (see, for example, Salmivalli, 2002; Smith et al., 2002). Differences in how victimization is assessed is likely to account for some of the variance, as studies reporting the highest incidence have generally used different measures than usually employed in the literature (e.g., Hoover et al., 1992; Wolke et al. 2000). There is also some difference in the criterion of what constitutes bullying in relation to frequency (e.g., sometimes or more often vs. ever having happened), as well as the time period covered in the studies. Cultural and linguistic aspects may further affect incidence rates in different countries, in particular as the most common measure (i.e., the *Olweus' Bully/Victim Questionnaire*) relies on subjective label (i.e., bullying) rather than operational descriptions of specific behaviors. This can present potential validity problems where such a label is not easily translated, especially in the context of reported discrepancy in conceptualization of bullying across different cultures (e.g., Ortega & Mora-Merchan, 1999; Smith et al., 2002). However, when age is limited to primary schools and studies are comparable in terms of measure and language (i.e., English version of the *Olweus' Bully/Victim Questionnaire*), prevalence rates for victimization still range up to 14 percentage points. The sampling methods and sample sizes varied considerably in these studies, and when reported, attrition was as high as 53 percent.

Farrington (1993) has indeed drawn attention to a general lack of consideration for sampling and attrition issues in bullying research, which may further contribute to the vast difference in reported prevalence rates. Similarly, Sveinsson and Morris (in press) have indicated that much of the bullying research appears to have overlooked the importance of methodological issues, rendering comparison between studies difficult, as

well as generating spuriously high variance in prevalence rates. Independent of these issues, however, it is nevertheless interesting that almost all studies have reported the incidence of bullying/victimization to be higher than 10% (and up to 77%) for primary school students, suggesting bullying to be quite common among young school children, regardless of the culture and language involved.

Assessment of Bullying

Bullying research has used various methods of assessment to gather information regarding prevalence, attitudes, socio-metric status of those involved, and a range of related issues. These methods have included structured interviews (Wolke et al, 2000; 2001; Kochenderfer & Ladd, 1996), direct observations (Craig & Pepler, 1997; Pellegrini & Long, 2002), teacher's ratings (Olweus, 1978), peer nominations (Perry et al., 1988; Salmivalli, 2002; Salmivalli et al., 1996), and self-reports (Olweus, 1993; Pellegrini et al., 1999; Berthold & Hoover, 2000; Johnson et al., 2003). A few studies have compared these different approaches for evaluating peer victimization.

For example, Perry et al. (1988) used a peer nomination measure, a self-report, and a teacher checklist to assess peer victimization, and reported moderate correlations between peer nominations and the other two methods. The correlation between peer- and self-report was only .42, which the authors explained in terms of limitation of the self-report, where a small number of children reported themselves to be extremely victimized while not identified by peers nor teachers. The teacher-based assessment was also recognized as problematic, where teachers differed markedly in their threshold for identifying victimization.

Pellegrini and Bartini (2000) compared direct observations, student's diary recordings, a teacher questionnaire developed by Dodge and Coie (1987), two peer nomination measures developed by Perry et al (1988) and Schwartz, Dodge, and Coie (1993), and the *Olweus' Bully/Victim Questionnaire*. Intercorrelations were high between the two peer nomination measures (.80 for victimization and .75 for aggression), while only modest between peer nominations and self-report (i.e., the *Olweus' Bully/Victim Questionnaire*) (.21/.32 for victimization; .47/.18 for aggression). Direct observations produced low correlations from .03 to .08 for self-report, teacher questionnaire, and diary recordings, whereas correlations were somewhat higher with peer nominations, ranging from .14 to .34. The teacher questionnaire was only used for identifying aggressors, and produced modest correlations with both self-report and peer nominations, or .24 to .47. Although a number of the modest intercorrelations among different measures were reported to be significant at the $p < .05$ level, or even the .01 level, correlation of .18 to .47 between the most commonly used methods of self-report and peer nominations have to be considered less than optimal given that both methods supposedly tap the very same construct.

Addressing the validity concerns of self-reports raised by Perry et al. (1988), Crick and Bigbee (1998) constructed a peer nomination instrument based on a self-report developed by Crick and Grotpeter (*Social Experience Questionnaire*, 1996), providing similar item content and yielding the same three scales of different "Social Experience" as the self-report. Both instruments were then administered to a sample of 383 fourth and fifth grade children, along with peer- and self-reports of social and psychological

adjustment. The correlation between peer- and self-report of Social Experience ranged from .31 to .39 depending on scale (i.e., overt vs. relational victimization) and gender, thus consistent with the peer nomination and self-report correlations reported by Perry et al. (1988), and Pellegrini and Bartini (2000) discussed above. However, in the context of the adjustment indexes in Crick and Bigbee's (1998) study, subjects identified as victims on either peer- or self-report were significantly more maladjusted than non-victims, although the most maladjusted victims appeared to be those identified by both measures.

Based on these findings, Crick and Bigbee suggest that self-reports of victimization may not be more biased than peer-reports, contrary to the assertion by Perry et al. (1988) discussed above. In addition, they point out that self-reports have several advantages over peer nomination reports, such as being less time consuming, applicable to settings where peer input is not easily available, and can capture victimization episodes where only the bully and the victim are present. This last assertion may explain some of the large variance unaccounted for in peer- and self-report correlations, in particular victimization by more direct and physical forms of bullying. However, the consistent correlation of only .21 to .42 between these two methods of assessing victimization in current research suggests that a number of children may be identified as victims on one measure while not the other, thus questioning whether meaningful comparisons can be made between studies applying these different methods of assessment.

Addressing these concerns, Schäfer, Werner, and Crick (2002) compared the constructs of "relational victimization" and "physical victimization" to "being bullied," using the *Social Experience Questionnaire-Self Report/Peer Report* and the *Olweus'*

Bully/Victim Questionnaire in a sample of 217 sixth grade children in German schools. The findings showed considerable gender differences, where male victim status on the *Olweus' Bully/Victim Questionnaire* correlated moderately with relational (.44) and physical (.54) victimization on the *Social Experience Questionnaire-Self Report*, whereas female victim status correlations were weak for physical victimization (.12) but comparable for relational victimization (.48). Consistent with generally low correlations between self-reports and peer-reports in the literature, the correlations between the *Olweus' Bully/Victim Questionnaire* and the *Social Experience-Peer Report* were low for male subjects, or .10 for physical victimization and .20 for relational victimization. However, gender differences were again significant in these comparisons, where female victim status on the *Olweus Bully/Victim Questionnaire* correlated moderately with peer reports of relational victimization (.49), and although low, to a statistically significant ($p < .5$) level for physical victimization (.21). In addition to these comparisons, Schäfer et al. evaluated to what extent the *Olweus' Bully/Victim Questionnaire* and the *Social Experience Questionnaire* identified overlapping groups of highly victimized children. There was a moderate overlap for the self-report of the *Social Experience Questionnaire*, where 65% of males and 53% of females classified as highly victimized were also identified as victims on the *Olweus' Bully/Victim Questionnaire*. However, as indicated by the correlational data above, the overlap was considerably less for the peer reports of the *Social Experience Questionnaire*, where only 20% of male victims on the *Olweus' Bully/Victim Questionnaire* were identified by peer reports. In contrast, the overlap for female victims was quite substantial, or 66.7% and all accounting for relational

victimization on the *Social Experience Questionnaire-Peer Report*. Hence, although these comparisons are generally consistent with rather low correlations between self-reports and peer-reports in the literature, further analysis by gender suggest substantially different dynamics in victimization for boys and girls.

The vast majority of the bullying research has used self-reports to establish prevalence and to explore other demographics of bullying. The most commonly used self-report, in European studies in particular, has been a translated and/or adopted versions of the *Olweus' Bully/Victim Questionnaire* (e.g., Genta et al, 1996; Whitney & Smith, 1993; O'Moore et al., 1997; Tomás de Almeida, 1999). As discussed previously, this questionnaire provides a definition of bullying through brief examples of various forms of relational, verbal and physical aggression, where subjects are then asked various questions regarding frequency and circumstances of such bullying incidents. Greene (2000) argues that this method of assessment relies on subjects retaining the definition presented at the outset of administration, which may not necessarily hold throughout the survey. In fact, respondents might revert to their own personal definition as they complete the questionnaire, and thus provide responses reflecting different behaviors than those explained in the research definition. There is some evidence for this assertion, where Smith et al. (2002) found that when younger children (i.e., eight year olds) were asked to discriminate between different forms of aggression (e.g., bullying vs. physical aggression) in various "cartoon scenarios," they primarily contrasted aggressive and non-aggressive behaviors but generally did not differentiate between the different terms (e.g., bullying, social exclusion, verbal aggression) presented to them.

Ólafsson et al. (1999) further point out that although the instrument consists of numerous items regarding the dynamics of bullying, the incidence of victimization and aggression is generally based on only one item for each, that is, whether the subject has been bullied or has bullied “sometimes or more often” during the school term in question. However, Solberg and Olweus (2003) argue that the use of “a single variable/item with quite specific response alternatives is the ‘method of choice’ for prevalence estimation” (p. 242), as composite scores from a scale or index are typically “more abstract and general than an estimate derived from a single variable” (p. 242). Notwithstanding, the literature on research and measurement emphasizes the general link between greater item number and increased reliability of scales and questionnaires (see, for example, DeVellis, 1991; Fink & Kosecoff, 1985). In fact, prevalence rates derived from the *Olweus Bully/Victim Questionnaire* tend to vary considerably, consistent with questionable reliability associated with a single item response.

There appears to be a dearth of information regarding established reliability or validity of the *Olweus’ Bully/Victim Questionnaire*. Addressing issues of validity, Olweus (1991) cites that in his early Swedish studies, “self report items on being bullied or bullying or attacking others respectively correlated in the range .40-.60 (unpublished) with reliable peer ratings on related dimensions” (p.432). More specific to the instrument in question, Olweus’ post-intervention assessment in Norway (1991) had each subject estimate the number of students in his or her class who were involved in bullying, where class means were then correlated with the results from the *Bully/Victim Questionnaire*. Correlations were at .61 (victimization) and .58 (bullying), from which Olweus attributed

good validity to the self-report data. Little additional information on psychometric properties appears to be available. In fact, some writers (e.g., Ólafsson et al., 1999; Sveinsson & Morris, in press) have commented on the difficulty in accessing information regarding psychometric properties for the questionnaire. It appears that further information on the measure was not available in the English literature (see, for example, Olweus, 1991; 1992; 1993; 1994a; 1994b; 1996; 1997; 1999a; 1999b; 2001; 2003a; 2003b; Olweus & Alsaker, 1991), until very recently (Solberg & Olweus, 2003), and the updated information applied predominately to the two single variables used to determine prevalence rates for bullying and victimization.

In the updated information, Solberg and Olweus (2003) compared a “global measure of being bullied and bullying other students,” which consisted of the two key items from the *Olweus’ Bully/Victim Questionnaire* (i.e., been bullied/bullied others), to a “specific measure of being bullied/bullying other students,” which was based on seven items from the Questionnaire about the various forms of victimization/bullying others (e.g., being bullied verbally, being excluded from a group). The study included 5,171 students from 37 Norwegian schools, and also involved measures of “social disintegration,” “global negative self-evaluations,” “depressive tendencies,” “general aggression,” and “antisocial behavior,” most of which were developed by Olweus. Using a cut-off frequency response of “two or three times a month or more often” for both the ‘global measure’ and any of the seven items on the ‘specific measure,’ Solberg and Olweus (2003) reported correlations for prevalence estimation at .79 for being bullied and .77 for bullying other students. Children identified as victims of bullying on the ‘global measure’ also reported

significantly higher levels of “social disintegration,” “global negative self-evaluations,” and “depressive tendencies” when compared to non-victims. Furthermore, significant differences were also found between children identified as bullies and non-bullies on measures of aggression and anti-social behavior. Interpreting these findings, Solberg and Olweus point to a clear discriminant value of the global key variables, and conclude that these variables show “functionality” in terms of construct validity and psychometric properties for estimating prevalence of bullying and victimization. The authors acknowledge, however, that use of a single variable may in some instances be inadequate, such as when the goal is to identify groups of victims or bullies “with marked victim and/or bully characteristics” (p.265). Under those circumstances, as well as for cross validation with different sources of data, Solberg and Olweus (2003) recommend creating a sum or an average of the responses to the key global questions and the following seven questions about various forms of victimization/bullying from the *Olweus’ Bully/Victim Questionnaire*. However, no information was provided regarding the psychometric properties for such an index/composite score.

Studies translating and modifying the *Olweus’ Bully/ Victim Questionnaire* for first time use generally do not report any reliability procedures for the modified version (e.g., Borg, 1999; Genta et al., 1996; Olafsen & Viemerö, 2000; Tomás de Almeida, 1999). Furthermore, a number of studies explain their choice for this instrument in terms of its widespread use and/or the prospect for direct comparisons (e.g., Bentley & Li, 1995; Boulton & Underwood, 1992; Ortega & Mora-Merchan, 1999; Pellegrini et al, 1999), but do not address the psychometric properties. For example, Pellegrini et al. (1999) provide

the rationale that “This questionnaire has been extensively used in Europe and has *strong* [italics added] psychometric qualities” (p. 219), citing a publication by Olweus (1993). However, this latter citation does not reveal any information on the psychometric properties of the Questionnaire, but only a simple description of the instrument’s design, and how it “differs from previous questionnaires on bully/victim problems” (Olweus, 1993, p. 11). Similarly, recent publications addressing general assessment of bullying have described the *Olweus’ Bully/Victim Questionnaire* as a well-established measure (e.g., Crothers & Levinson, 2004; Griffin & Gross, 2004) while only citing the limited psychometric information published by Olweus.

Although research in the United States has begun to adapt the *Olweus Bully/Victim Questionnaire*, a number of researchers have developed their own instruments when addressing peer victimization and bullying (e.g., Berthold & Hoover, 2000; Crick & Grotpeter, 1996; Juvonen et al., 2000). For example, Espelage, Bosworth, and Simon (2000) report that their search for bullying measures in the literature led them to develop their own measure from an existing aggression scale, as available bullying instruments “rely on a subjective label” (p.328).

In summary, the majority of the available data on bullying appears to be based on an instrument that has little reliability data available. Furthermore, the majority of prevalence rates that have been obtained with the Olweus Questionnaire seem to be based on one or two item responses to an arbitrary label, which becomes particularly problematic when applied in different languages and cultures. There is thus a need in the field to improve current assessment methods, where multi-informant approach such as

that of Crick and Bigbee (1998) and Pellegrini and Long (2002) might be the lead to follow.

Theoretical Perspectives

Consistent with shaping the groundwork in bullying research, Olweus' conceptual framework has guided much of the literature to date. The initial model (Olweus, 1978) postulated special individual characteristics that predisposed students to become bullies or victims, which would then be shaped by their family environment, group climate (i.e., reactions and behaviors in the peer group), and the school setting (i.e., class composition, school size, teacher's approach). However, as the results from the longitudinal studies in Sweden (Olweus, 1978) showed that aggressive behavior was highly stable over time in spite of various changes in the environment (e.g., teachers, schools, classmates), Olweus (1984) concluded that situational and environmental factors had limited relevance. Instead, Olweus increased the importance of personality traits or individual differences in his model, where bullies were "characterized by an aggressive personality pattern, with a tendency to react aggressively in many different situations, with fairly weak controls or inhibitions against aggressive tendencies, and with a positive attitude to violence" (Olweus, 1984, p. 67).

Similarly, victims were postulated to have certain characteristics that contributed to peer rejection, which in turn would make them vulnerable to bullying. Specifically, these characteristics included sensitivity and anxiousness, lack of assertiveness and insecurity, low self-esteem, and isolation among peers, which were often in combination with relative physical weakness (Olweus, 1978; 1984; 1999b). However, situational factors

were acknowledged to have a role in determining if a child would become a victim, such as whether the peer group included a potential bully or not. Furthermore, the data from the Swedish studies showed incidence of other students than bullies taking part in bullying, and Olweus has acknowledged that “social psychological mechanisms” are also relevant. Since then, two decades of research have indeed confirmed that bullying is not always a dyad between a bully and a victim, but often a group process (e.g., Grotperter & Crick, 1996; Lagerspetz et al., 1982; O’Moore et al., 1997; Ólafsson et al., 1999; Salmivalli et al., 1997; Smith & Shu, 2000).

Taking these latter findings into account, Olweus (1999b) postulated that when several individuals, as opposed to one bully, take part in the bullying, group mechanism may play a more important role. Four contributing factors are identified, namely, social contagion, weakening of the control or inhibition against aggressive tendencies, distribution of responsibility, and changes in peers’ perceptions. In this model, “social contagion” suggests that insecure students who do not have “natural status” among their peers “model” the bully to assert themselves. Bullies are further seen to be rewarded through winning in their altercations with victims, where an observer may subsequently have less inhibition against his or her own aggressive tendencies. Third, certain students who generally do not engage in aggressive behaviors may participate in bullying when a number of other students do so due to reduced sense of individual responsibility. Finally, repeated harassment and degrading comments may shape the peers’ perception of the victim as someone who is fairly worthless and deserves the harassment, which in turn may lessen possible guilt feelings associated with bullying. The core of Olweus’

conceptual model, however, remains the personality and characteristics of the bully. It includes a postulate outlining how bullies develop an aggressive reaction pattern, identifying early attachment issues, child rearing practices and discipline, and the temperament of the child. In the context of victims, however, Olweus (1999b) presents a more interactive view, where he hypothesizes that the victims' personality traits (i.e. anxious, sensitive, insecure) "are likely to be both a cause, and a consequence, of the bullying" (p.16).

On the other hand, Craig and Pepler (1997) indicate that perspectives limited to personality and social-interactional frameworks cannot fully explain bullying behavior. They maintain that bullying is too complex to be explained by individual personality traits, even when some children may indeed have developed a behavioral style consistent with bullies or victims, and argue that bullying must also be considered within an ecological perspective, taking into account the larger peer group and the school social system. Similarly, Swearer and Doll (2001) apply such ecological perspective to bullying, emphasizing the contributions of peers, teachers, physical characteristics of the school grounds, family factors, and cultural characteristics in addition to the individual characteristics of the child who bullies. Within this ecological framework, both Swearer and Doll (2001), and Craig and Pepler (1997) apply social learning theory to explain peer contributions to bullying. Specifically, Craig and Pepler adopt three contextual processes that have been identified to increase the likelihood of aggression, namely, observing aggression, receiving aggression, and reinforcement of aggression, Craig and Pepler postulate that peers are likely to play a role in all three processes during bullying. That is,

peers may serve as instigators, models for aggression, and may join in a bullying episode. They may further reinforce the interactions by serving as “an audience for the theatre of bullying” (Craig & Pepler, 1997, p. 43). Testing this hypothesis, Craig and Pepler report that peers were involved in 85% of the bullying episodes observed on the playground, and coded as reinforcing the bullying in 81% of the episodes.

In their follow-up work, O’Connell, Pepler, and Craig (1999) took a more absolute theoretical approach to study the peer processes observed in bullying, adopting a social learning perspective of modeling and reinforcement. Citing Bandura’s (1977) three conditions that positively influence modeling (i.e., the model is observed to be powerful, to receive rewards for the behavior, and to share similar characteristics), O’Connell et al. posit that these conditions are often present during bullying. Specifically, the bully may represent a powerful figure to peers when observed tormenting a victim, and his behavior may often go unpunished. Hence, O’Connell et al. hypothesize that given these modeling conditions, peers may be influenced to actively participate in bullying. In turn, the aggressive behaviors of the bully may be actively or passively reinforced by the peer group’s attention and engagement. The role of the peer group as a reinforcing agent has indeed been documented in recent studies that have addressed the larger social context of bullying (e.g., O’Connell et al. 1999; Salmivalli et al., 1997; Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996; Sutton & Smith, 1999). In contrast, very little attention has been given to the role of the children who serve as the targets of peers’ aggressive acts (Crick & Grotpeter, 1996; Perry et al., 1988). While the theoretical formulations reviewed here attempt to explain the behavior of the bully and the peer

group, there is much less emphasis on explaining victimization; why certain children get repeatedly targeted by bullies.

Further study of social learning theory of aggression may provide improved understanding of why bullying tends to be directed toward some children but not other. Similar to aggression, bullying tends to occur in certain settings, toward certain individuals, and in response to certain forms of provocation. It is thus often under stimulus control, which social learning theory postulates to be brought on through either paired experiences or response consequences (Bandura, 1973). The latter is particularly relevant to school bullying, where individuals may experience different outcomes for the very same aggressive behavior depending on whom it is directed to, providing informative and discriminative cues regarding probable consequences for their aggression. Hence, bullies would regulate their behavior accordingly, and tend to aggress toward persons and in contexts where it is relatively safe and rewarding to do so, while reluctant to exhibit such behavior when it carries a high risk of punishing consequences. As Bandura (1973) states,

People therefore attack not only those whom they have learned to dislike, but also those whom it is relatively safe to attack and those whom it is advantageous to attack. The effects of anticipated consequences, depending on their nature, may enhance, attenuate, or even override the eliciting power of social characteristics. A less disliked person who cannot easily counter-aggress is more likely to be selected as a target than a highly provoking person who has the power to retaliate (p. 137).

There is some evidence for this hypothesis in the context of bullying and victimization. For Example, Perry, Williard, and Perry (1990) examined peer's perceptions of the consequences that victimized children provide their aggressors. The results indicated that victimized children were likely to reward their aggressors, who placed substantial importance on obtaining tangible resources from them, were relatively unmoved by the prospect of causing them pain and suffering, and were not concerned about the prospect of victims' retaliation. Furthermore, aggressive peers did not only expect more rewarding than negative outcomes for attacking victimized children, but also placed great emphasis on prevailing over them and cognitively minimized the potentially harmful and punitive consequences of accomplishing this. Dodge, Price, et al. (1990) have reported consistent findings for dyads characterized by bullying and victimization, and similar results emerged from studies on victimized children's reactions to aggression and bullying (Kochenderfer & Ladd, 1997; Wilton, Craig, & Pepler, 2000).

Social learning theory (Bandura, 1973) postulates that once established, aggressive behavior such as bullying is controlled and maintained through diverse conditions of reinforcement. However, because of the inherent punishment contingency of interpersonal aggression (e.g., sustained injuries), direct external reinforcement is posited to be of special importance, as greater incentives are needed to overcome the inhibitions aroused by the aversive effects (punishment contingency) of aggression. For example, tangible rewards may often be the end product of aggressive behavior, such as when children forcibly acquire possessions of vulnerable peers by threats of physical violence or by aggressive actions. Other sources of external reinforcement may include social and

status rewards, and some individuals may derive satisfaction from seeing the expression of injury they inflict on their victim.

Vicarious reinforcement may also increase the tendency to behave in similar ways, where observed outcomes influence behavior in much the same way as directly experienced consequences. Hence, seeing others positively reinforced for aggressive behavior can serve as a motivator by stirring observers' expectations that they too will be rewarded for similar behavior.

Finally, self-reinforcement may play an important role in the reinforcement control of aggression. Social learning theory (Bandura, 1973) acknowledges that individuals do things that result in self-satisfaction and feelings of self-worth, while refraining from behaving in ways that produce self-criticism and other self-devaluating consequences. Although such function of self-reinforcement applies to self-regulation of aggression more as restraining power, some individuals may adopt self-reinforcement contingencies by which they derive self-satisfaction from aggressing successfully. Through the course of socialization, however, most individuals adopt negative sanctions against cruel actions, and thus restrain from injurious aggression by anticipated self-criticism. Still, self-reinforcing responses do come under discriminative control, such as when social pressures impel people to act in ways that would ordinarily result in feelings of shame and self-contempt.

Social learning theory identifies various ways in which such neutralization of self-condemnation for aggression can occur. Of particular relevance to bullying is dehumanization of victims, where individuals selected as targets are often "divested of

human qualities by being viewed not as individuals with sensitivities, feelings, and hopes, but as stereotyped objects bearing demeaning labels such as ‘gooks’ or ‘niggers’” (Bandura, 1973, p. 213). Social learning theory posits attribution of blame to victims as another effective method, where the aggressors condemn their targets “for bringing the suffering on themselves either by their character defects or by their witless and provocative behavior” (Bandura, 1973, p. 214). In the case where other children join in the bullying, their behavior may be explained by diffusion of responsibility, a term that Olweus (1999b) has indeed borrowed from social learning theory to explain when more than one bully are involved. Hence, sense of personal responsibility, and thus potential for self-criticism, is reduced when acts of aggression are carried out collectively, where the responsibility can always be attributed to the other members of the group. Social learning theory acknowledges that these effects of neutralization toward engaging in aggressive behavior are usually achieved through a gradual desensitization process “in which the participants may not fully recognize the marked changes they have undergone” (p. 214). This would be consistent with recent bullying research where there is considerable evidence (e.g., Craig & Pepler, 1997; O’Connell et al. 1999; Salmivalli et al., 1996) that bystanders often join in the bullying of victimized children.

Bullying and Disability

Childhood aggression has been the subject of extensive study over the past 30 years (see Crick & Dodge, 1994; Farrington, 1993; Goldstein & Conoley, 1997, for reviews). At the same time, however, relatively little research is available on children who have been the targets of peer aggression. Furthermore, as discussed in the previous section,

attempts to explain bullying and childhood aggression have generally focused on the aggressor. Although this has been the case in Olweus' research and discussions (Olweus, 1978; 1984; 1993; 1999a), he has also reported on the general characteristics of victims. Specifically, Olweus (1999b) has described victims as more anxious and insecure than other students, and to generally react to aggression by crying and withdrawal. The literature on peer victimization has reported similar observations, where children who are repeatedly targeted by peers tend to be submissive and exhibit emotional reactions (e.g., Perry et al., 1990; Schwartz, Dodge, & Coie, 1993). However, Olweus (1978) noted in his pioneering research in Sweden that victims were not a homogeneous group, where a small number were actively irritating and hot-tempered. Further research has confirmed this distinction, where a minority of victims are now referred to as "aggressive" or "provocative" (e.g., Olweus, 1993; 1996; 1999b; Pellegrini et al., 1999; Ross, 1996; Schwartz, Dodge, Pettit, & Bates, 1997; Schwartz, Proctor, & Chien, 2001).

Regardless of whether victims react to bullying by submissive or aggressive behaviors, the literature indicates that these children are often socially isolated or have few friends (Bollmer, Milich, Harris, & Maras, 2005; Perry, Hodges, & Egan, 2001; Olweus, 1999a), even rejected (Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004; Smith, 1999; Wilton, Craig, & Pepler, 2000), and are therefore "easy targets" posing less risk of social consequences for their attackers. In fact, based on their review of the literature on peer relations of victimized children, Hodges and Perry (1999) hypothesized that lack of friends and peer rejection would contribute to victimization over time. Their findings did indeed confirm significant contribution of interpersonal factors (i.e.,

rejection) to peer victimization, but also highlighted the importance of personal attributes, such as submissive and anxious behaviors, as well as physical weakness.

There is some indication that children with disabilities may be at a higher risk for being bullied than their peers. Circumstances or manifestations associated with their disability may involve some of the characteristics that have been identified as risk factors for victimization, such as physical weakness, social isolation, and impaired social relations. Although bullying research has focused relatively little attention on the relationship between children having disabilities and being victims of bullying, a small body of research has been emerging from the United Kingdom (e.g., Marini, Fairbairn & Zuber, 2001; Mishna, 2003). For example, Whitney, Smith, and Thompson (1994) interviewed 186 children from eight schools, of whom 93 had special needs based on mild or moderate learning disabilities, hearing impairments, visual impairments, or physical disabilities. The two groups were matched in terms of age, gender, ethnicity and grade, where 37 pairs were drawn from primary schools and 56 pairs from secondary schools. The authors found a significant difference between the two groups, where almost two thirds of the children with special needs reported being bullied compared to roughly a quarter of the children from the general student population. The difference was greater for secondary schools, where the prevalence of victimization in the general population dropped significantly from primary (46%) to secondary schools (16%), while prevalence rates remained similar (around 60%) for students with special needs across primary and secondary schools. Children with special needs also reported bullying others more frequently; however, most who did reported that they were also bullied by others. The

rate of reported victimization varied considerably based on disability, where students with hearing impairments and moderate learning disabilities reported higher rates than, for example, students with visual impairments or physical disabilities.

A component of a longitudinal survey of health and behavior of children and adolescents in Scottish schools compared rates of bullying and/or teasing in a sample of 2,586 primary school children with an average age of about 11 years (Sweeting & West, 2001). The study reported children with disabilities, as well as with conditions of serious or more limiting illness, to be significantly more likely to experience frequent victimization. Specifically, 39% of children with speech difficulties, and 30% of those with reading difficulties, were teased/bullied weekly or more often, compared to around 15% of the general population. The rate was lower for students with hearing difficulties (22.4%) and not significantly different from that of the general population, which shows lack of correspondence with the findings of Whitney et al. (1994) above.

Doren, Bullis, and Benz, (1996) explored predictors of victimization among high school students with disabilities that included learning disabilities, mental retardation, serious emotional disturbance, speech-language impairments, hearing impairments, visual impairments, orthopedic impairments, and other health impairments. The findings indicated that 54% of the sample (N=408) had experienced victimization at one time or another during their school years. Further analysis of risk factors revealed that students with serious emotional disturbance were more likely to experience victimization than any other disability group, in particular if they demonstrated low interpersonal skills.

Dawkins (1996) compared a group of children (N=46) with visible physical disabilities (e.g., cerebral palsy, spina bifida, muscular dystrophy) with a control group (N=57) having non-visible health conditions (e.g., asthma, abdominal pains, headaches). Participants completed the *Olweus Bully/Victim Questionnaire*, where 30% of the physically disabled children reported being bullied “sometimes or more often” compared to 14% of the controls. In a similar vein, comparison of children with hemiplegia to matched controls in primary schools in the UK indicated that these children were three times as likely to be victimized (Yude, Goodman, & McConachie, 1998).

Nabuzoka and Smith (1993) studied bullying and victimization among 179 primary school children in the United Kingdom, of whom 36 had been diagnosed with learning disabilities. Each child was individually administered a peer nomination measure, where significantly more children with LD (33.3%) were nominated as victims of bullying when compared to their non-LD peers (7.7%). Sabornie (1994) reported similar findings for students with learning disabilities in the United States, where a sample of 38 LD students was matched with non-LD controls in grades six and seven, and responded to two questions addressing victimization. Comparison of the two groups revealed that LD students reported significantly more victimization than their controls. Likewise, a survey of high school students’ experiences of school violence and feelings of safety (Morrison, Furlong, & Smith, 1994) found that students in a special day class (all identified as having a severe learning disability) experienced bullying at a higher rate than any of the other comparison groups (i.e., regular education, opportunity, or leadership classes).

However, using peer nominations to identify victims and bullies in a sample of children with learning disabilities (n=28) and children in regular education (n=113) from fifth grade in two Finnish schools, Kaukiainen et al. (2002) did not confirm their hypothesis of more frequent victimization among the children with learning disabilities, but found significantly more bullies in this group. Nabuzoka (2003) reported similar trends, where teacher ratings of 121 primary school children in the UK identified children with learning disabilities more often as bullies, but at the same time, also as victims. However, when teacher and peer nominations were combined, children with LD were measured as victims of bullying significantly more often than non-LD children.

There appears to be only one published study that has directly addressed bullying in the context of children with speech/language impairments (SLI). Knox and Conti-Ramsden (2003) compared two groups of SLI students receiving varying levels of special services (n=48; n=46) with a group of non-special education students (n=50) in primary schools in the UK. Victimization was assessed by a self-report, where 36% of students with SLI perceived themselves to be at risk of being bullied compared to 12% of the non-disabled students. Student placement (i.e., level of service) did not seem to affect the risk of being bullied, where comparison of victimization for the two SLI groups did not yield statistical significance.

In summary, the limited research that has been published in this area indicates a higher risk of victimization for children who have a disability when compared to their non-disabled peers. However, the degree to which having a disability increases the risk of victimization remains unclear, as reported rates of victimization tend to vary from one

study to another. In addition, little is known in regard to whether children having a particular disability have a higher likelihood of being bullied. In fact, of the relatively few published studies addressing victimization across several disability categories (e.g., Doren, Bullis, & Benz, 1996; Sweeting & West, 2001; Whitney et al. 1994), findings were inconsistent in regards to which children's disability presented the highest risk for victimization. These discrepancies appear to be the result of the use of different study designs, where studies varied by type of disability being investigated, sample size, and age of the participating children. In addition, assessment methods varied by informant source, with some studies using self-reports (e.g., Dawkins, 1996; Knox & Conti-Ramsden, 2003), while others used structured interviews (e.g., Whitney et al., 1994), or peer nominations (e.g., Kaukiainen et al., 2002; Nabuzoka, 2003), where most of these methods involved nonvalidated assessment instruments.

CHAPTER 3: METHOD

Participants

From the entire population of approximately 14,000 Hispanic students enrolled in 3rd through 12th grades, 471 students were randomly selected to participate in the present study. Specifically, 270 students who were enrolled in regular education classes and 201 students enrolled in special education classes were randomly selected from the school district's database using a stratified random sampling procedure based on school category level (i.e., elementary, middle, and high school) for the regular education students, and school category level and special education diagnostic category for the special education students. Six special education diagnostic categories of the *Arizona Revised Statutes* (ARS §15-761) were included in the present study: specific learning disability (SLD), speech language impairment (SLI), emotional disability (ED), mild mental retardation (MIMR), hearing impairment (HI), and orthopedic impairment (OI) (Appendix A).

Permission to conduct this study was first obtained from the Director of Research, Assessment, and Evaluation of a largely Hispanic populated school district in Tucson, Arizona (Appendix B). Approval from the University of Arizona's Human Subjects Protection Program was obtained prior to inviting participants to take part in the study (Appendix C), and invitation letters along with consent forms explaining the study were mailed to each student's residence (see Appendices D, E, and F). Signed consent forms were returned for 42 students (8.9% return) based on the first mailing and reminder postcards, and an additional 14 signed consent forms were returned following a second mailing of invitation letters, yielding a total of 56 students and a return percentage value

of 11.9%. Of these 56 students, 13 were not available at the time that the data were collected due to the following reasons: no longer enrolled in the school district ($N=9$), principal at an elementary school denied student participation in the study ($N=3$), and student refusal to sign minor assent form (Appendix G) ($N=1$). This resulted in a total of 43 participants, 22 students enrolled in regular education and 21 students in special education. Table 1 presents the number and percentage of the participants by regular versus special education across school category level; and Table 2 shows the number and percentage of six disability diagnoses by combined secondary (middle and high school) versus elementary school level.

Table 1

Participants in Regular versus Special Education by School Category level

| Placement | Elem. School | M. School | High School | Total |
|--------------------------|--------------|-----------|-------------|---------|
| Regular Education | | | | |
| <i>N</i> | 12 | 6 | 4 | 22 |
| (% of Total Sample) | (27.9%) | (14%) | (9.3%) | (51.2%) |
| Special Education | | | | |
| <i>N</i> | 10 | 11 | 0 | 21 |
| (% of Total Sample) | (23.3%) | (25.6%) | (0%) | (48.8%) |
| Total <i>N</i> | 22 | 17 | 4 | 43 |
| (% of Total Sample) | (51.2%) | (39.5%) | (9.3%) | (100%) |

Table 2

Disability Diagnoses by Elementary versus Secondary School Level

| Disability | Elementary Level | Secondary Level | Total |
|---------------------|------------------|-----------------|---------|
| SLD <i>N</i> | 6 | 1 | 7 |
| (% of Total Sample) | (28.6%) | (4.8%) | (33.3%) |
| SLI <i>N</i> | 3 | 2 | 5 |
| (% of Total Sample) | (14.3%) | (9.5%) | (23.8%) |
| ED <i>N</i> | 0 | 2 | 2 |
| (% of Total Sample) | (0%) | (9.5%) | (9.5%) |
| MIMR <i>N</i> | 1 | 4 | 5 |
| (% of Total Sample) | (4.8%) | (19.0%) | (23.8%) |
| HI <i>N</i> | 0 | 1 | 1 |
| (% of Total Sample) | (0%) | (4.8%) | (4.8%) |
| OI <i>N</i> | 1 | 0 | 1 |
| (% of Total Sample) | (4.8%) | (0%) | (4.8%) |
| Total <i>N</i> | 11 | 10 | 21 |
| (% of Total Sample) | (52.4%) | (47.6%) | (100%) |

Survey Instruments

All participants completed the *Reynolds Bully-Victimization Scale* (Reynolds, 2003) and the revised *Olweus' Bully/Victim Questionnaire* (Olweus, 2000). Both measures are

designed to assess frequency of bullying and victimization among school age children in grades three and above.

The *Bully-Victimization Scale* (BVS) consists of 46 items which provide scores for two subscales; the Bullying Scale (23 items) and the Victimization Scale (23 items). The BVS test protocol allows respondents four options for each item, with responses ranging from “Never” (rating of 0) to “Five or More Times” (rating of 3). The items for the “Bully” scale and the “Victimization” scale are interspersed on the protocol, but each scale is scored separately. Raw scores are converted into percentile ranks and to standard scores in the form of *T*-scores with a mean of 50 and standard deviation of 10. For the purpose of this study, only the Victimization Scale was scored and coded for clinical severity levels. Specifically, Reynolds (2003) identifies *T*-scores of 56 to 63 as a clinically significant level of bully victimization, *T*-scores of 64 to 68 as a moderately severe level, and *T*-scores of 69 and above as a severe level of bully victimization.

The BVS was standardized on 2,405 students from third through 12th grade, and Reynolds (2003) reports reliability coefficients of .93 for internal consistency and a standard error of measurement of 2.65 for the total standardization sample.

The *Olweus' Bully/Victim Questionnaire* (OBVQ) addresses both bullying behaviors and experiences of victimization, and consists of 36 items following a definition of bullying. Of those, 20 items address victimization by bullies and 16 items address bullying other students. Ten victimization items and ten bullying items provide five response options, ranging from “it hasn't happened in the past couple of months” to

“several times a week,” while the remaining 16 items query specifics, such as whether a respondent has been bullied “in the bathroom?” or “on the school bus?.”

The OBVQ does not yield a factor or a score based on the total number of items for bully victimization or the total number of items for bullying. Instead, it is standard practice to use one item to determine whether a respondent has been a victim of bullying. Specifically, a single response option to the first item following the questionnaire’s definition of bullying (item 4: “How often have you been bullied at school in the past couple of months?”) is commonly used to determine incidence of bully victimization (see, for example, Baldry & Farrington, 2004; Bentley & Li, 1995; Borg, 1999; Genta et al., 1996; Kumpulainen et al., 1998; Nansel et al., 2001; Olafsen & Viemerö, 2000; O’Moore et al., 1997; Whitney & Smith, 1993). Solberg and Olweus (2003) report correlations of .79 between this “key item” for prevalence estimation and seven other items from the questionnaire addressing various forms of victimization in a sample of approximately 5,000 students.

Olweus (2001b) also recommends construction of an index for an individual’s tendency to be bullied; using the mean of responses for ten items (items 4-13). There are a few studies which have constructed such a victimization scale from a total of nine items, and report Cronbach alphas ranging from .78 to .95 (Pellegrini & Bartini, 2000; Pellegrini & Long, 2002; Pellegrini et al., 1999; Unnever & Cornell, 2003). A similar reliability analysis conducted for the present study (nine-item total score index) yielded consistent results with a Cronbach’s Alpha of .85.

Research using the OBVQ has generally used a response of being bullied “sometimes” or more often as a “cut-off” score indicating victimization by bullies (e.g., Bentley & Li, 1995; Whitney & Smith, 1993). However, the revised version (Olweus, 2000) has a new response format, where the response option corresponding to “sometimes” is now “2 or 3 times a month.” Based on their analysis of responses from more than 5,000 students, Solberg and Olweus (2003) recommend using a response of “2 or 3 times a month” or more often for prevalence estimation, which will be the “cut-off” score used in the present study.

The dependent measures for this study were the following:

1. Raw score and *T*-score for the BVS Victimization Scale (Reynolds, 2003);
2. Score for the single key variable (item 4) on the OBVQ for victimization (Solberg & Olweus, 2003).
3. A total victimization score sum for the 9 items recommended for an index score for the OBVQ (Olweus, 2001b; Solberg & Olweus, 2003).
4. BVS Victimization “cut-off” *T*-score (i.e., below clinical significance (T -score < 56), clinically significant (T -score \geq 56)).
5. Victimization based on the OBVQ single key variable “cut-off” (i.e., “only once or twice” or less, “2 or 3 times a month” or more often).
6. OBVQ nine-item-index “cut-off” score for victimization (i.e., less than “2 or 3 times a month” for combined items, total score < 18, “2 or 3 times a month” or more often, total score \geq 18).

Procedure

All participants were administered the full versions of the *Bully Victimization Scale* (Reynolds, 2003) and the revised *Olweus' Bully/Victim Questionnaire* (Olweus, 2000). All participants in the elementary and middle schools each received individual assistance from the researcher, who read them instructions for both instruments and read them the definition from the OBVQ. Students whose reading was reported to be below third grade level (per teacher assessment) were also read each individual item and response options. High school students in regular education were administered the survey instruments by their respective teachers.

Analyses of Findings

The SPSS statistical computer package was used for the analysis of the data collected in the present study. The data for each participant consisted of Reynolds BVS raw score and *T*-score for victimization and the associated clinical severity level, a score for the OBVQ single key variable and cut-off category, a total score for the OBVQ nine item index scale for victimization and the associated cut-off category. To determine differences between students in regular and special education, disability subgroups, and school level, Analysis of Variance (ANOVA) and Multivariate Analysis of Variance (MANOVA) procedures were used to analyze dependent measures providing interval/ratio values (i.e., BVS raw score and *T*-score, OBVQ key variable, OBVQ 9 item index total score), whereas Fisher's Exact Test was used to analyze dependent measures providing categorical data (i.e., cut-off scores for victim identification).

As the sampling for this study used a disproportional stratified random model, ANOVA and MANOVA analyses were conducted with weighted least squares to adjust for the oversampling of special education students. It should also be noted that due to the very small sizes of the individual disability subgroups, only the three larger disability groups (SLD, SLI, MIMR) were included in analyses comparing victimization across different disability categories.

A *Levene's Test* of Homogeneity of Variances was applied to the ANOVA analyses to test the assumption of equality of group variances, and all tests were set at an alpha < .05.

CHAPTER 4: RESULTS

This chapter presents the results from the data analyzes conducted to address the research hypotheses presented in chapter one. Tables summarize the relevant data.

This study evaluated the conditions of having a disability diagnosis versus no diagnosis, disability category, and school level (elementary vs. combined high and middle schools) in relation to the following dependent measures: (a) raw score (weighted analysis) and *T*-score for the BVS Victimization Scale, (b) score for the OBVQ single key variable for victimization, (c) total OBVQ score for victimization (i.e., sum of the 9 items recommended as an index), (d) BVS cut-off *T*-score for victimization (i.e., *T*-score < 56, *T*-score ≥ 56), (e) OBVQ cut-off score based on the single key variable (i.e., less than “2 or 3 times a month,” “2 or 3 times a month” or more often), and (f) OBVQ cut-off score based on the OBVQ total score (same cut-off as the key variable). Lastly, results from correlations between the two self-report instruments are presented.

Hypothesis 1

The means and standard deviations for each group on the BVS Victimization Scale raw score are shown in Table 3. These values (i.e., standard deviations) reflect adjustment by sampling weights (weighted least squares) brought about by the disproportional sampling design used for this study. An ANOVA was conducted on the raw score for the BVS Victimization Scale for Disability Status (disability diagnosis vs. no disability diagnosis) x School Level (elementary vs. secondary). Results indicated significant main effects for Disability Status, $F(1, 39) = 6.211, p < .05$, with results showing the students in the disabled group having significantly higher raw scores for the

BVS Victimization Scale than those in the non disabled group. No significant School Level main effect was found, $F(1, 29) = 1.106, p > .05$, nor was there a significant Disability Status x School Level interaction effect, $F(1, 39) = .075, p > .05$.

Table 3

Means and Standard Deviations of BVS Raw score (weighted least squares) for Students with and without Disabilities across School Levels

| Disability Status | School Level | <i>M</i> | <i>SD</i> | <i>N</i> |
|-------------------|--------------|----------|-----------|----------|
| Non Disabled | Elementary | 12.27 | 13.078 | 11 |
| | Secondary | 9.18 | 10.267 | 11 |
| | Total | 10.73 | 11.743 | 22 |
| Disabled | Elementary | 23.27 | 12.716 | 11 |
| | Secondary | 18.00 | 10.770 | 10 |
| | Total | 20.76 | 11.692 | 21 |
| Combined Groups | Elementary | 14.11 | 13.596 | 22 |
| | Secondary | 10.54 | 11.016 | 21 |
| | Total | 12.34 | 12.457 | 43 |

The means and standard deviations of the OBVQ key variable scores and the OBVQ total scores with adjustment for sample weights are presented for students with and without disabilities across school levels in Table 4. A Disability Status x School Level MANOVA was conducted on the OBVQ key variable score and the OBVQ total score. Results did not indicate any significant multivariate main effects for Disability Status

(Hotelling's Trace = .107, $df = 2, 38, p > .05$); School Level (Hotelling's Trace = .002, $df = 2, 38, p > .05$); or Disability Status x School Level interaction effect (Hotelling's Trace = .008, $df = 2, 38, p > .05$).

Of the total of 43 students who completed the Bully Victimization Scale, 14 (32.6%) scored above the designated cut-off score (T -score = 56) for clinically significant victimization. A one-tailed Fisher's Exact Test was conducted for Disability Status and the BVS cut-off score ($T < 56, T \geq 56$). The results showed a significant difference between the groups ($p < .01$), where students having a disability reported higher clinically significant levels of victimization than students who did not have a disability.

With respect to OBVQ cut-off scores for the single key variable, 11 students exceeded the cut-off score for the OBVQ key variable, yielding an incidence of 25.6% for victimization among the participants. Specifically, 38.1% of students with disabilities reported being bullied "2 or 3 times a month" or more often, whereas non-disabled students reported considerably lower rates at 13.6%. A one-tailed Fisher's Exact Test was performed for having a disability and the OBVQ single variable cut-off score. The findings indicated that the observed differences between students with and without a disability were not significant ($p = .068$).

However, when the cut-off for victimization was based on OBVQ total score, only three students (7%) were identified as victims of bullying. A one-tailed Fisher's Exact Test was conducted for having a disability and the cut-off score for the OBVQ total score, which yielded no significant differences based on having a disability ($p = .108$).

Table 4

Means and Standard Deviations of OBVQ Key Variable Score and Total Score for Students with and without Disabilities across School Levels

| Dependent V. | Disability Status | School Level | <i>M</i> | <i>SD</i> | <i>N</i> |
|---------------------------------|--------------------|--------------|----------|-----------|----------|
| OBVQ Key Variable Score | Non Disabled | Elementary | .82 | 1.977 | 11 |
| | | Secondary | .64 | 1.462 | 11 |
| | | Total | .73 | 1.703 | 22 |
| | Disabled | Elementary | 1.18 | .763 | 11 |
| | | Secondary | 1.20 | .989 | 10 |
| | | Total | 1.19 | .855 | 21 |
| | Combined Groups | Elementary | .87 | 1.472 | 22 |
| | | Secondary | .71 | 1.255 | 21 |
| | | Total | .79 | 1.358 | 43 |
| OBVQ Total Variable Score | Non Disabled | Elementary | 4.45 | 7.327 | 11 |
| | | Secondary | 4.09 | 5.850 | 11 |
| | | Total | 4.27 | 6.477 | 22 |
| | Disabled | Elementary | 8.18 | 4.763 | 11 |
| | | Secondary | 7.50 | 5.974 | 10 |
| | | Total | 7.86 | 5.241 | 21 |
| | Combined Groups | Elementary | 4.99 | 6.277 | 22 |
| | | Secondary | 4.54 | 5.969 | 21 |
| | | Total | 4.76 | 6.062 | 43 |

Hypothesis 2

The means and standard deviations for Disability Category (LD, SLI, and MIMR) by School Level for each of the dependent measures are presented in Table 5. A Disability Category x School Level ANOVA was conducted on the BVS *T*-score. The results did not indicate any significant effects for Disability Category, $F(2, 11) = .152, p > .05$; School Level, $F(1, 11) = .272, p > .05$; or Disability Category x School Level, $F(2, 11) = .343, p > .05$. Similarly, a Disability Category x School Level MANOVA conducted for the OBVQ key variable score and the OBVQ total score did not reveal any significant effects for Disability Category (Wilk's Lambda = .813, $df = 4, 20, p > .05$); School Level (Wilk's Lambda = .923, $df = 2, 10, p > .05$); or Disability x School Level (Wilk's Lambda = .838, $df = 4, 20, p > .05$).

Hypothesis 3

The means and standard deviations for School Level for the BVS raw score, OBVQ key variable score, and OBVQ total score are presented in tables 3 and 4. The ANOVA analyses conducted for the BVS raw score showed that there was no significant effect for school level, $F(1, 29) = 1.106, p > .05$. Likewise, the MANOVA analyses for the OBVQ key variable and the OBVQ total score revealed no significant effect for school level (Hotelling's Trace = .002, $df = 2, 38, p > .05$).

Table 5

Means and Standard Deviations of BVS T-score (BVST), OBVQ Key Variable Score (OBVQk), and OBVQ Total Score (OBVQt) for Disabilities (SLD, SLI, MIMR) across School Levels

| Disab. Categ. | School Level | BVST <i>M</i> | BVST <i>SD</i> | OBVQk <i>M</i> | OBVQk <i>SD</i> | OBVQt <i>M</i> | OBVQt <i>SD</i> | <i>N</i> |
|---------------|--------------|------------------|-------------------|-------------------|--------------------|-------------------|--------------------|----------|
| SLD | El. | 63.5 | 17.98 | 1.67 | 1.03 | 10.33 | 7.633 | 6 |
| | Sec. | 60 | - | 1.00 | - | 8 | - | 1 |
| | Tot. | 63 | 16.47 | 1.57 | .976 | 10 | 7.024 | 7 |
| SLI | El. | 54.3 | 15.5 | .67 | 1.155 | 4 | 6.083 | 3 |
| | Sec. | 58 | 7.07 | .50 | .707 | 8.50 | 6.364 | 2 |
| | Tot. | 55.8 | 11.7 | .60 | .894 | 5.80 | 5.891 | 5 |
| MIMR | El. | 64 | - | 1.00 | - | 6 | - | 1 |
| | Sec. | 49.8 | 10.37 | .75 | 1.5 | 3.25 | 6.5 | 4 |
| | Tot. | 52.6 | 11.01 | .80 | 1.304 | 3.80 | 5.762 | 5 |
| Total | El | 60.8 | 15.9 | 1.3 | 1.059 | 8 | 7.071 | 10 |
| | Sec. | 53.6 | 9.24 | .71 | 1.113 | 5.43 | 5.940 | 7 |
| | Tot. | 57.8 | 13.7 | 1.06 | 1.088 | 6.94 | 6.562 | 17 |

Correlation Between Dependent Measures

The level of agreement between the dependent measures for all participants was calculated using the Pearson product moment correlations. The results showed, as presented in Table 6, that there were significant correlations between BVS *T-score* and the OBVQ key variable score ($r = .601, p < .01$), the BVS *T-score* and the OBVQ total score ($r = .779, p < .01$), and the OBVQ key variable score and the OBVQ total score ($r = .846, p < .01$). These findings indicate moderate to high level of agreement ($r = .601$ to $.846$).

Table 6

Pearson Correlation: BVS T-Score, OBVQ Key Variable, and OBVQ Total Score

| | | BVS | OBVQ Key | OBVQ |
|--------------------|------------------|----------------|----------|--------|
| | | <i>T-Score</i> | Variable | Total |
| BVS | Pearson <i>r</i> | 1 | .601** | .779** |
| <i>T-Score</i> | <i>N</i> | 43 | 43 | 43 |
| OBVQ | Pearson <i>r</i> | .601** | 1 | .846** |
| Key Variable Score | <i>N</i> | 43 | 43 | |
| OBVQ | Pearson <i>r</i> | .779** | .846** | 1 |
| Total Score | <i>N</i> | 43 | 43 | 43 |

** $p < .01$, two-tailed

CHAPTER 5: DISCUSSION

This chapter summarizes and discusses the results of the present study in relation to the literature on bullying of children having disabilities. In addition, limitations and implications of the study are addressed with suggestions for future research.

The purpose of the present study was to investigate whether students having a disability, as defined by the *Arizona Revised Statutes* (ARS 15-761), were subjected to bullying significantly more than students who did not have a disability. The present study also investigated whether there were any significant differences in victimization rates across the disability groups to determine whether a particular disability, if any, presented students at a higher risk for victimization by bullies. Due to the limited number of study participants having an emotional disability, hearing impairment, or orthopedic impairment, comparison between disability groups included only those students with specific learning disabilities (SLD), speech language impairments (SLI), and mild mental retardation (MIMR).

Disability versus No Disability

With regard to whether students having disabilities reported higher rates of victimization, students identified with one of the six disability categories included in the present study obtained significantly higher scores for victimization on the *Reynolds Bully Victimization Scale*. In addition, these students' BVS *T*-scores reached clinical significance levels for victimization significantly more often than *T*-scores for non-disabled students. Specifically, 52.4% of students who had a disability reported clinical levels of victimization compared to 13.6% of students without a disability. These results

are consistent with previous findings in the literature, where most studies have reported victimization rates for children having disabilities in the range of about 30-60% compared to about 7-25% for children having no disabilities. For example, Whitney et al. (1994) reported significant differences in regard to victimization of students with learning disabilities (62%) when compared to a matched group of non-disabled students (25%). Similarly, Knox and Conti-Ramsden (2003) found that significantly more students with speech language impairments (36%) perceived themselves at risk for victimization when compared to regular education students (12 %).

In regard to the results from the *Olweus' Bully/Victimization Questionnaire*, 38.1% of students having disabilities were identified as victims compared to 13.6% of students without disabilities based on the single key variable. In contrast, only 14.3% of students having disabilities and 0% of non-disabled students were identified as victims based on the total score for the OBVQ nine-item-index. However, neither of these OBVQ findings yielded statistical significance. Specifically, students' scores for victimization on both the single key variable and the nine-item-index were not significantly different between students having disabilities and those who did not. Similarly, the number of students identified as victims was not significantly different across the two groups.

These inconsistent findings between the *Reynolds Bully Victimization Scale* and the *Olweus' Bully/Victim Questionnaire* render the findings from the present study inconclusive in regard to whether students having disabilities report significantly higher rates of victimization than non-disabled students. One explanation for this observed inconsistency could be in the lack of concurrent validity studies between these two

instruments. Specifically, there appears to be no published studies that have compared reported victimization rates for the *Reynolds Bully Victimization Scale* and the *Olweus' Bully/Victim Questionnaire*. However, the present study found correlations between BVS *T*-scores and OBVQ key variable scores and nine-item-index total scores to demonstrate moderate to high levels of agreement (.601-.779). As discussed in chapter two, correlations reported for the *Olweus' Bully/Victim Questionnaire* and various other measures of victimization have typically been lower. For example, Schäfer et al. (2002) reported correlations ranging from .12 to .54 between the OBVQ and the *Social Experience Questionnaire-Self Report*. Similarly, Pellegrini and Bartini (2000) found only modest correlations (.21-.32) between the OBVQ and peer nomination measures of victimization.

Another explanation for the inconsistent findings between the BVS and OBVQ could be the population under study. As the percentage rates for victimization presented above indicate, students having disabilities differed appreciably in regard to reported victimization on the BVS and the OBVQ, whereas these differences were much less for non-disabled students. This indicates that a number of students having disabilities reported clinical levels of victimization on the BVS but not on the OVBQ. As discussed in chapters two and three, the OBVQ provides a definition of bullying through brief examples of various forms of relational, verbal, and physical aggression, which is followed by various questions about bullying. Greene (2000) cautions that respondents may revert to their own personal definition and respond with different behaviors in mind than those explained in the questionnaire definition. This may be of particular concern in

regard to younger children or students having social/developmental deficiencies, where there is some evidence that younger children (i.e., younger than nine-year-olds) tend to give examples of physical aggression when describing bullying and do not differentiate between verbal, relational, and indirect forms of aggression included in the research definition of bullying (e.g., Smith, Madsen, & Moody, 1999; Smith et al., 2002). Hence, due to the conditions associated with their disabilities, it is possible that during the administration of the OBVQ, some of the students in the present study may not have fully comprehended the questionnaire definition of bullying, or the connection between the definition and the subsequent questions regarding experiences of being bullied. It is thus possible that even with the individual assistance provided during administration, the level of comprehension required to correctly complete the items on the OBVQ may have been too high for certain students in the present study, possibly resulting in different response pattern between the OBVQ and the BVS.

Disability Category

With respect to disability category (LD, SLI, & MIMR), the present findings showed no significant differences for the BVS *T*-score, OBVQ key variable, and OBVQ total score. These results are not consistent with other findings which have reported significant differences in victimization across different disability categories (e.g., Doren et al. 1996; Sweeting & West 2001; Whitney et al. 1994). However, although the findings from these studies have been consistent with regard to significant differences in victimization rates across different disability groups, the findings have been inconclusive with reference to what particular disability places students at a higher risk of victimization.

School Level Differences

Research studies reporting prevalence rates for bullying and victimization across different grade levels have generally indicated that younger students tend to report significantly higher rates of victimization (e.g., Boulton & Underwood, 1992; Nansel et al., 2001; Pellegrini & Long, 2002; Ólafsson et al., 1999; Olweus, 1993; Smith et al., 1999; Smith & Shu, 2000). The results from the present study, however, showed no significant differences in victimization rates between students in elementary schools (grades 3-5) and secondary schools (grades 6-11). There are also a few other studies from the United States that have not shown significant differences across school or grade levels (e.g., Berthold & Hoover, 2000; Crick & Grotpeter, 1996; Hoover et al., 1992; Perry et al., 1988), which Smith et al. (1999) suggest might reflect cultural differences between the United States and Europe.

Limitations of the Present Study

The present study has two major limitations. The first limitation has to do with the low response rate for parent/subject consent forms, where only 11.9% of the total sample enrolled in the study. This low response rate and attrition resulted in a small sample size, increasing the risk of Type II error in the statistical analyses, as well as limiting comparison across disability groups to only three out of the six groups. In addition, given that almost 90% of the original sample did not participate in the study, it is questionable whether the results from the study can be generalized to the general student population from which the sample was taken.

The second limitation involves the instruments used to measure victimization by bullies. Although the *Reynolds Bully Victimization Scale* is standardized and appears to have excellent psychometric properties (Reynolds, 2003), the present study seems to be the first study to apply it to bullying research, and to compare the BVS to another self-report measure purported to measure the same construct. In a different vein, the *Olweus' Bully/Victim Questionnaire* has been used extensively in bullying research. However, this instrument does not yield a typical factor score, and there has been a substantial variation in how different studies have used and interpreted its results (i.e., based on one/two key items vs. nine/ten item index score). In addition, regardless of its common use, there is a dearth of basic information regarding the psychometric properties for this measure (see, for example, Sveinsson & Morris, in press).

Implications and Future Directions for Research

The findings of this study were inconclusive in regard to whether children having disabilities reported higher rates of victimization, which presents an important implication for future research in this area. As Sveinsson and Morris (2006) point out, research on bullying and disability has devoted limited attention to methodological and psychometric issues, where there appears to be a critical need for psychometrically sound assessment instruments. This study attempted to address these concerns by adopting two instruments: the *Reynolds Bully Victimization Scale*, which is standardized and reports strong psychometric properties (Reynolds, 2003), and the commonly used *Olweus' Bully/Victim Questionnaire*. Although the correlations between these two instruments ranged from moderate to high, each produced different findings in regard to the main

research question of this study. This underscores the tremendous need for increased attention concerning assessment methods in bullying research, and in particular with regard to special populations where current methods of traditional self-reports may not be appropriate.

In terms of future research, there are fewer than 20 studies that have addressed victimization of students with disabilities, where the present study appears to be the first research in the United States that has attempted to compare bully victimization rates across students having various disabilities, as well as to compare victimization rates between students who have and students who do not have disabilities. There is thus a noticeable need to replicate the current study, but with substantially larger samples and greater diversity in regard to ethnic and socio economic backgrounds. In addition, given that certain students having disabilities may have had difficulties comprehending the research definition of bullying, great care is recommended in selecting measures that have a simple enough format to be appropriate for the specific population under study.

APPENDIX A: ARIZONA REVISED STATUTES (ARS §15-761)

Arizona Revised Statutes (ARS §15-761)

Title 15, Article 4: Special Education for Exceptional Children: Definitions

In this article, unless the context otherwise requires:

1. "Autism" means a developmental disability that significantly affects verbal and nonverbal communication and social interaction and that adversely affects educational performance. Characteristics include irregularities and impairments in communication, engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines and unusual responses to sensory experiences. Autism does not include children with characteristics of emotional disability as defined in this section.
2. "Child with a disability":
 - (a) Means a child who is at least three years but less than twenty-two years of age, who has been evaluated pursuant to section 15-766 and found to have at least one of the following disabilities and who, because of the disability, needs special education and related services:
 - (i) Autism.
 - (ii) Emotional disability.
 - (iii) Hearing impairment.
 - (iv) Other health impairments.
 - (v) Specific learning disability.
 - (vi) Mild, moderate or severe mental retardation.
 - (vii) Multiple disabilities.
 - (viii) Multiple disabilities with severe sensory impairment.
 - (ix) Orthopedic impairment.
 - (x) Preschool moderate delay.
 - (xi) Preschool severe delay.
 - (xii) Preschool speech/language delay.
 - (xiii) Speech/language impairment.
 - (xiv) Traumatic brain injury.
 - (xv) Visual impairment.
 - (b) Does not include a child who has difficulty in writing, speaking or understanding the English language due to an environmental background in which a language other than English is primarily or exclusively used.
3. "Due process hearing" means a fair and impartial administrative hearing conducted by the state educational agency by an impartial administrative law judge in accordance with federal and state law.
4. "Educational disadvantage" means a condition which has limited a child's opportunity for educational experience resulting in a child achieving less than a normal level of learning development.

5. "Eligibility for special education" means the pupil must have one of the disabilities contained in paragraph 2 of this section and must also require special education services in order to benefit from an educational program.
6. "Emotional disability":
 - (a) Means a condition whereby a child exhibits one or more of the following characteristics over a long period of time and to a marked degree that adversely affects the child's performance in the educational environment:
 - (i) An inability to learn which cannot be explained by intellectual, sensory or health factors.
 - (ii) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
 - (iii) Inappropriate types of behavior or feelings under normal circumstances.
 - (iv) A general pervasive mood of unhappiness or depression.
 - (v) A tendency to develop physical symptoms or fears associated with personal or school problems.
 - (b) Includes children who are schizophrenic but does not include children who are socially maladjusted unless they are also determined to have an emotional disability as determined by evaluation as provided in section 15-766.
7. "Foster parent" means a person who has been designated by a court of competent jurisdiction to serve as the parent of a child with a disability if that person has an ongoing, long-term parental relationship with the child, is willing to make educational decisions for the child and has no personal interest that would conflict with the interests of the child.
8. "Hearing impairment" means a loss of hearing acuity, as determined by evaluation pursuant to section 15-766, which interferes with the child's performance in the educational environment and requires the provision of special education and related services.
9. "Home school district" means the school district in which the person resides who has legal custody of the child, as provided in section 15-824, subsection B. If the child is a ward of the state and a specific person does not have legal custody of the child, the home school district is the district that the child last attended or, if the child has not previously attended a public school in this state, the school district within which the child currently resides.
10. "Impartial administrative law judge" means an administrative law judge of the office of administrative hearings and who is knowledgeable in the laws governing special education and administrative hearings.
11. "Individualized education program" means a written statement, as defined in 20 United States Code sections 1401 and 1412, for providing special education services to a child with a disability that includes the pupil's present levels of educational performance, the measurable annual goals and short-term objectives or benchmarks for evaluating progress toward those goals, the requirements for high school graduation, including provisions for testing and testing accommodations, and the specific special education and related services to be provided.

12. "Individualized education program team" means a team whose task is to develop an appropriate educational program for the child and that includes:
 - (a) The parent.
 - (b) At least one of the child's regular education teachers.
 - (c) One of the child's special education teachers.
 - (d) A representative of the public agency that is qualified to provide or supervise the provision of instruction that is designed specifically for children with disabilities who is knowledgeable about general curriculum and the availability of resources.
 - (e) A person who can interpret the instructional implications of evaluation results.
 - (f) The child, if appropriate.
 - (g) At the discretion of the parent or the public agency, other persons with knowledge or special expertise about the child.
13. "Mental retardation" means a significant impairment of general intellectual functioning that exists concurrently with deficits in adaptive behavior and that adversely affects the child's performance in the educational environment.
14. "Mild mental retardation" means performance on standard measures of intellectual and adaptive behavior between two and three standard deviations below the mean for children of the same age.
15. "Moderate mental retardation" means performance on standard measures of intellectual and adaptive behavior between three and four standard deviations below the mean for children of the same age.
16. "Multidisciplinary evaluation team" means a team of persons including individuals described as the individualized education program team and other qualified professionals who shall determine whether a child is eligible for special education.
17. "Multiple disabilities" means learning and developmental problems resulting from multiple disabilities as determined by evaluation pursuant to section 15-766 that cannot be provided for adequately in a program designed to meet the needs of children with less complex disabilities. Multiple disabilities include any of the following conditions that require the provision of special education and related services:
 - (a) Two or more of the following conditions:
 - (i) Hearing impairment.
 - (ii) Orthopedic impairment.
 - (iii) Moderate mental retardation.
 - (iv) Visual impairment.
 - (b) A child with a disability listed in subdivision (a) of this paragraph existing concurrently with a condition of mild mental retardation, emotional disability or specific learning disability.
18. "Multiple disabilities with severe sensory impairment" means multiple disabilities that include at least one of the following:
 - (a) Severe visual impairment or severe hearing impairment in combination with another severe disability.

- (b) Severe visual impairment and severe hearing impairment.
19. "Orthopedic impairment" means one or more severe orthopedic impairments and includes those that are caused by congenital anomaly, disease and other causes, such as amputation or cerebral palsy, and that adversely affect a child's performance in the educational environment.
20. "Other health impairments" means limited strength, vitality or alertness, including a heightened alertness to environmental stimuli, due to chronic or acute health problems which adversely affect a pupil's educational performance.
21. "Out-of-home care" means the placement of a child with a disability outside of the home environment and includes twenty-four hour residential care, group care or foster care on either a full-time or part-time basis.
22. "Parent" means:
- (a) Either a natural or adoptive parent of a child.
 - (b) A guardian, but not this State if the child is a ward of this state.
 - (c) A person acting in the place of a natural or adoptive parent with whom the child lives or a person who is legally responsible for the child's welfare.
 - (d) A surrogate parent.
 - (e) A foster parent to the extent permitted by state law.
23. "Preschool child" means a child who is at least three years of age but who has not reached the required age for kindergarten, subject to section 15-771, subsection G.
24. "Preschool moderate delay" means performance by a preschool child on a norm-referenced test that measures at least one and one-half, but not more than three, standard deviations below the mean for children of the same chronological age in two or more of the following areas:
- (a) Cognitive development.
 - (b) Physical development.
 - (c) Communication development.
 - (d) Social or emotional development.
 - (e) Adaptive development.
- The results of the norm-referenced measure must be corroborated by information from a comprehensive developmental assessment and from parental input, if available, as measured by a judgment based assessment or survey. If there is a discrepancy between the measures, the evaluation team shall determine eligibility based on a preponderance of the information presented.
25. "Preschool severe delay" means performance by a preschool child on a norm-referenced test that measures more than three standard deviations below the mean for children of the same chronological age in one or more of the following areas:
- (a) Cognitive development.
 - (b) Physical development.
 - (c) Communication development.
 - (d) Social or emotional development.
 - (e) Adaptive development.
- The results of the norm-referenced measure must be corroborated by information from a comprehensive developmental assessment and from parental input, if

- available, as measured by a judgment based assessment or survey. If there is a discrepancy between the measures, the evaluation team shall determine eligibility based on a preponderance of the information presented.
26. "Preschool speech/language delay" means performance by a preschool child on a norm-referenced language test that measures at least one and one-half standard deviations below the mean for children of the same chronological age or whose speech, out of context, is unintelligible to a listener who is unfamiliar with the child. Eligibility under this paragraph is appropriate only if a comprehensive developmental assessment or norm-referenced assessment and parental input indicate that the child is not eligible for services under another preschool category. The evaluation team shall determine eligibility based on a preponderance of the information presented.
 27. "Prior written notice" means notice, as defined in 20 United States Code sections 1414 and 1415, that includes a description of the action proposed or refused by the school, an explanation of why the school proposes or refuses to take the action, a description of any options the school considered and the reasons why those options were rejected, a description of each evaluation procedure, test, record or report the school used as a basis for the proposal or refusal, a description of any other factors that were relevant to the school's proposal or refusal, a full explanation of all of the procedural safeguards available to the parent and a listing of sources for parents to contact to obtain assistance in understanding the notice.
 28. "Public educational agency" means a school district, a charter school, an accommodation school, a state supported institution or any other political subdivision of this state that is responsible for providing education to children with disabilities.
 29. "Related services" means those supportive services, as defined in 20 United States Code section 1401, that are required to assist a child with a disability who is eligible to receive special education services in order for the child to benefit from special education.
 30. "Residential special education placement" means the placement of a child with a disability in a public or private residential program, as provided in section 15-765, subsection G, in order to provide necessary special education and related services as specified in the child's individualized education program.
 31. "Severe mental retardation" means performance on standard measures of intellectual and adaptive behavior measures at least four standard deviations below the mean for children of the same age.
 32. "Special education" means specially designed instruction that meets the unique needs of a child with a disability and that is provided without cost to the parents of the child.
 33. "Special education referral" means a written request for an evaluation to determine whether a pupil is eligible for special education services that, for referrals not initiated by a parent, includes documentation of appropriate efforts to educate the pupil in the regular education program.

34. "Specially designed instruction" means adapting the content, methodology or delivery of instruction to address the unique needs of a child with a disability and to ensure that child's access to the general curriculum as identified in the academic standards adopted by the state board of education.
35. "Specific learning disability":
 - (a) Means a specific learning disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations.
 - (b) Includes such conditions as perceptual disabilities, minimal brain dysfunction, dyslexia and aphasia.
 - (c) Does not include learning problems which are primarily the result of visual, hearing, motor or emotional disabilities, of mental retardation or of environmental, cultural or economic disadvantage.
36. "Speech/language impairment" means a communication disorder such as stuttering, impaired articulation, severe disorders of syntax, semantics or vocabulary, or functional language skills, or a voice impairment, as determined by evaluation pursuant to section 15-766, to the extent that it calls attention to itself, interferes with communication or causes a child to be maladjusted.
37. "State educational agency" means the Arizona department of education.
38. "State placing agency" has the same meaning prescribed in section 15-1181.
39. "Surrogate parent" means a person who has been appointed by the court pursuant to section 15-763.01 in order to represent a child in decisions regarding special education.
40. "Traumatic brain injury":
 - (a) Means an acquired injury to the brain that is caused by an external physical force and that results in total or partial functional disability or psychosocial impairment, or both, that adversely affects educational performance.
 - (b) Applies to open or closed head injuries resulting in mild, moderate or severe impairments in one or more areas, including cognition, language, memory, attention, reasoning, abstract thinking, judgment, problem solving, sensory, perceptual and motor abilities, psychosocial behavior, physical functions, information processing and speech.
 - (c) Does not include brain injuries that are congenital or degenerative or brain injuries induced by birth trauma.
41. "Visual impairment" means a loss in visual acuity or a loss of visual field, as determined by evaluation pursuant to section 15-766, that interferes with the child's performance in the educational environment and that requires the provision of special education and related services.

APPENDIX B: SCHOOL DISTRICT'S PERMISSION



July 7, 2004

Árni Vikingur Sveinsson
University of Arizona
Department of Special Ed Rehabilitation & School Psychology
Tucson, AZ 85721

RE: Research Project on Bullying & Disability

Dear Mr. Sveinsson:

We are pleased to inform you that your request to do research in the Sunnyside Unified School District has been approved.

Please share this letter with the principals prior to beginning your project, and be sure to gain their approval before proceeding.

Finally, please provide the Research, Assessment & Evaluation Department with one copy of the final report. If I can be of further assistance, feel free to call me at (520) 545-2082.

Sincerely,



Alex Duran, Ph.D.
Director of Research, Assessment & Evaluation

APPENDIX C: HUMAN SUBJECTS PROTECTION PROGRAM'S APPROVAL

Human Subjects Protection Program
<http://www.irb.arizona.edu>

13 September 2004



1350 N. Vine Avenue
P.O. Box 245137
Tucson, AZ 85724-5137
(520) 626-6721

Arni Sveinsson, Ph.D. candidate
Advisor: Richard Morris, Ph.D.
College of Education
P.O. Box 210069

RE: BSC B04.175 SCHOOL BULLYING AND DISABILITY IN HISPANIC YOUTH: ARE SPECIAL EDUCATION STUDENTS AT GREATER RISK OF VICTIMIZATION BY SCHOOL BULLIES THAN NON-SPECIAL EDUCATION STUDENTS?

Dear Mr. Sveinsson:

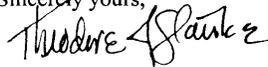
We received your research proposal as cited above. The procedures to be followed in this study pose no more than minimal risk to participating subjects and have been reviewed by the Institutional Review Board (IRB) through an Expedited Review procedure as cited in the regulations issued by the U.S. Department of Health and Human Services [45 CFR Part 46.110(b)(1)] based on their inclusion under research category 7. Although full Committee review is not required, a brief summary of the project procedures is submitted to the Committee for their endorsement and/or comment, if any, after administrative approval is granted. This project is approved with an **expiration date of 13 September 2005**. Please make copies of the attached IRB stamped consenting documents to obtain consent from your subjects.

The Human Subjects Committee (Institutional Review Board) of the University of Arizona has a current Federal Wide Assurance of compliance, number FWA00004218, which is on file with the Department of Health and Human Services and covers this activity.

Approval is granted with the understanding that no further changes or additions will be made either to the procedures followed or to the consent form(s) used (copies of which we have on file) without the knowledge and approval of the Human Subjects Committee and your College or Departmental Review Committee. Any research related physical or psychological harm to any subject must also be reported to each committee.

A university policy requires that all signed subject consent forms be kept in a permanent file in an area designated for that purpose by the Department Head or comparable authority. This will assure their accessibility in the event that university officials require the information and the principal investigator is unavailable for some reason.

Sincerely yours,



Theodore J. Glattke, Ph.D.
Chair,
Social and Behavioral Sciences Human Subjects Committee

TJG:pm

cc: Departmental/College Review Committee

Human Subjects Protection Program
<http://www.irb.arizona.edu>

10 February 2005



1350 N. Vine Avenue
 P.O. Box 245137
 Tucson, AZ 85724-5137
 (520) 626-6721

Arni Sveinsson, Ph.D. candidate
 Advisor: Richard Morris, Ph.D.
 Department of Special Education, Rehabilitation and School Psychology
 College of Education
 P.O. Box 210069

RE: **BSC B04.175** SCHOOL BULLYING AND DISABILITY IN HISPANIC YOUTH: ARE SPECIAL EDUCATION STUDENTS AT GREATER RISK OF VICTIMIZATION BY SCHOOL BULLIES THAN NON-SPECIAL EDUCATION STUDENTS?

Dear Mr. Sveinsson:

We received your 25 January 2005 letter and accompanying recruitment letters for the above-cited study. Permission is requested to:

- mail a second follow-up recruitment packet to parents of selected students.
- revise the recruitment letter to parents to include minor language changes for simplification, and to use a similar letter to recruit students >13 years of age.

These changes do not impact subject safety nor the consenting documents. Approval of these changes is granted effective 10 February 2005.

The Human Subjects Committee (Institutional Review Board) of the University of Arizona has a current *Federalwide Assurance* of compliance, *FWA00004218*, which is on file with the Department of Health and Human Services and covers this activity.

Approval is granted with the understanding that no further changes or additions will be made either to the procedures followed or to the consent form(s) used (copies of which we have on file) without the knowledge and approval of the Human Subjects Committee and your College or Departmental Review Committee. Any research related physical or psychological harm to any subject must also be reported to each committee.

Sincerely yours,

Theodore Glattke, Ph.D.
 Chair
 Social and Behavioral Sciences Human Subjects Committee

TJG:nm

cc: Departmental Review Committee

APPENDIX D: LETTERS OF INVITATION

College of Education
Department of Special Education, Rehabilitation
and School Psychology

THE UNIVERSITY OF
ARIZONA[®]
TUCSON ARIZONA

P.O. Box 210069
Tucson, Arizona 85721-0069
(520) 626-5901
FAX: (520) 621-6926

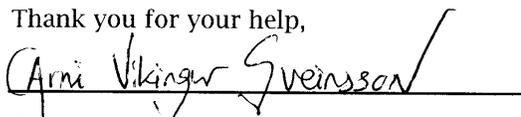
Dear parents:

Your child is being invited to participate in a research study about bullying. As you may know, being bullied can be very hurtful for school children and can affect them for a long time. The participation of your child is important and may help our schools better understand the reasons why certain children are targeted by school bullies.

Your child's participation would take place in his or her classroom, where he/she would complete two questionnaires (surveys) about his or her experiences with peers. Your permission is required in order for your child to complete the questionnaires. Please read the attached consent form carefully, and if you do consent, please sign and place the form in the attached prepaid return envelope.

Please feel free to contact me directly at 545-3027 if you have any questions or need further information.

Thank you for your help,



Arni Vikingur Sveinsson, MA
Gallego School Psychologist/Psicólogo escolar &
Doctoral Student /Estudiante de Doctorado
School Psychology Program/Programa de Psicología
Escolar
University of Arizona

Estimados padres:

Se invita a su niño(a) a participar en un proyecto de investigación sobre intimidación o agresión de parte de estudiantes conflictivos. Como Usted comprenderá, éstos intimidaciones pueden afectar a niños de por vida. La cooperación de su niño(a) será importante y podría ayudar a nuestras escuelas a entender mejor las razones por los cuales algunos estudiantes son victimas de intimidación.

La participación de su niño(a) será en su salón regular, dónde completará dos cuestionarios sobre sus experiencias con otros compañeros. Para que su niño(a) pueda completar los dos cuestionarios, se necesita su permiso. Por favor lea la forma de consentimiento detenidamente, y si usted está de acuerdo, firme y póngalo en el sobre adjunto y envíala por correo. Si usted tiene alguna pregunta o necesita más información, por favor llame me al número 545-3027.

Gracias por su ayuda,



Richard J. Morris, Ph. D.
Professor/Profesor
School Psychology Program/Programa de Psicología
Escolar,
University of Arizona

College of Education
Department of Special Education, Rehabilitation
and School Psychology

THE UNIVERSITY OF
ARIZONA[®]
TUCSON ARIZONA

PO Box 210069
Tucson, AZ 85721-0069
(520) 621-7822
FAX (520) 621-3821

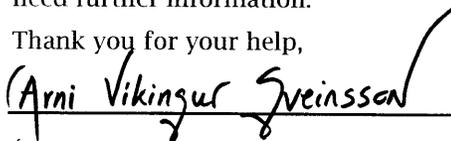
Dear student:

You are invited to participate in a research project about bullying. As you may know, being bullied can be very hurtful and can affect victims for a long time. Your participation is important and may help our schools better understand the reasons why certain students are targeted by school bullies.

Your participation would take place in one of your regular classes, where you would complete two questionnaires (surveys) about various experiences with peers. Both your permission and your parents' permission are required in order for you to complete the questionnaires. Please read the attached consent form carefully, and if you and your parents agree with your participation, please sign, have your parents cosign, and place the form in the attached prepaid return envelope.

Please feel free to contact me directly at 545-3027 if you have any questions or need further information.

Thank you for your help,



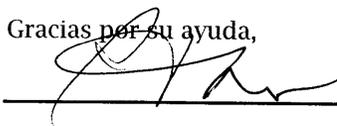
Árni Vikingur Sveinsson, MA
Gallego School Psychologist/Psicólogo escolar &
Doctoral Student /Estudiante de Doctorado
School Psychology Program/Programa de Psicología
Escolar
University of Arizona

Estimado estudiante:

Se invita a participar en un proyecto de investigación sobre intimidación o agresión de parte de estudiantes conflictivos. Como Usted comprenderá, éstos intimidaciones pueden afectar a las víctimas de por vida. Su cooperación será importante y podría ayudar a nuestras escuelas a entender mejor las razones por las cuales algunos estudiantes son víctimas de intimidación.

Su participación será en uno de sus clases regulares, dónde completará dos cuestionarios sobre sus experiencias con otros compañeros. Para que se pueda completar los cuestionarios, se necesita su permiso y el permiso de sus padres. Por favor lea la forma de consentimiento detenidamente, y si usted y sus padres están de acuerdo, firmen y póngalo en el sobre adjunto y envíala por correo. Si usted o sus padres tienen alguna pregunta o necesita más información, por favor llame me al número 545-3027.

Gracias por su ayuda,



Richard J. Morris, Ph. D.
Professor/Profesor
School Psychology Program/Programa de Psicología
Escolar,
University of Arizona

APPENDIX E: PARENTAL CONSENT FORMS (ENGLISH AND SPANISH)

PARENTAL CONSENT FORM

APPROVED BY UNIVERSITY OF AZ IRB
THIS STAMP MUST APPEAR ON ALL
DOCUMENTS USED TO CONSENT SUBJECTS.
DATE: 9/13/04 EXPIRATION: 9/13/05

**SCHOOL BULLYING AND DISABILITY IN HISPANIC YOUTH:
ARE SPECIAL EDUCATION STUDENTS AT GREATER RISK OF VICTIMIZATION
BY SCHOOL BULLIES THAN NON- SPECIAL EDUCATION STUDENTS?**

You are being asked to read the following material to ensure that you are informed of the nature of this research study and of how your child will participate in it, if you consent for him/her to do so. Signing this form will indicate that you have been so informed and that you give your consent. Federal regulations require written informed consent prior to participation in this research study so that you can know the nature and risks of your child's participation and can allow him/her to participate or not participate in a free and informed manner.

PURPOSE

The purpose of this research is to find out whether students in special education are bullied more often than other students, and if children with any particular disability are at higher risk of being bullied. Students are being invited to participate voluntarily in this research project, which consists of filling out two questionnaires about their experiences at school.

SELECTION CRITERIA

Your child is being invited to participate because he or she is Hispanic and was selected at random from a list of all registered Hispanic students in grades 3 through 12 in the Sunnyside Unified School District. Approximately 540 other children were invited to participate in this study.

PROCEDURE(S)

If you agree to have your child participate, you will be asked to consent to the following: That your child will be asked to complete two questionnaires (with assistance if necessary) that contain questions regarding your child's experiences with other children at school. Administration of the questionnaires will take place in your child's classroom on a normal school day during independent study time while other students work on classroom assignments, and will take about 10 to 15 minutes for each questionnaire. Your child may skip responding to any or all questions if he or she does not want to respond, and whether he or she participates or not will not have any effect on grades.

RISKS

If your child has been a victim of bullying, responding to the questionnaires may remind him or her of those unpleasant experiences.

BENEFITS

Bullying can have serious consequences for the emotional well-being of school children, and negatively affect school climate. Through participation in this research project, students will provide important information about whether children in special education are bullied more often than other students. Your child's responses will help our schools better understand if some children are more likely to be bullied, and help to prevent future bullying of these children.

PARTICIPATION COSTS AND SUBJECT COMPENSATION

There are no costs involved for participation in this study. However, your participation will involve approximately 30 minutes of classroom time. You will not be compensated for participating in this study.

CONTACTS

You can obtain further information from the principal investigator, Ární Víkingur Sveinsson, M.A., Ph.D. Candidate, at (520) 545-3027. If I have questions concerning my rights, I may call the Human Subjects Committee office at (520) 626-6721.

AUTHORIZATION

Before giving my consent by signing this form, the methods, inconveniences, risks, and benefits have been explained to me and my questions have been answered. I may ask questions at any time and I am free to withdraw my child from the project at any time without causing bad feelings. My participation in this project may be ended by the investigator for reasons that would be explained. New information developed during the course of this study which may affect my willingness to continue in this research project will be given to me as it becomes available. This consent form will be filed in an area designated by the Human Subjects Committee with access restricted by the principal investigator, Ární Víkingur Sveinsson, Ph. D. Candidate, or authorized representative of the Special Education, Rehabilitation, and School Psychology Department. I do not give up any of my legal rights by signing this form. A copy of this signed consent form will be given to me.

Subject's Signature

Date

Parent/Legal Guardian (Required)

Date

Witness (if necessary)

Date

INVESTIGATOR'S AFFIDAVIT:

Either I have or my designee has carefully explained to the subject the nature of the above project. I hereby certify that to the best of my knowledge the person who signed this consent form was informed of the nature, demands, benefits, and risks involved in his/her participation.

Signature of Presenter

Date

Signature of Investigator

Date

APPROBADO POR EL IRB DE LA UNIVERSIDA
ARIZONA. ESTE SELLO DEBE APARECER EN T
LOS DOCUMENTOS USADOS PARA OBTENER
CONSENTIMIENTO DE LOS PACIENTES.
FECHA: 9/13/04 VENCIMIENTO: 9/13/04

FORMA DE CONSENTIMIENTO DE LOS PADRES

**LA CONDUCTA DE INTIMIDACIÓN Y AGRESIÓN Y LA DISABILIDAD:
¿ES POSIBLE QUE ESTUDIANTES HISPANOS EN EDUCACIÓN ESPECIAL
SUFRÁN MÁS DE INTIMIDACIÓN Y AGRESIÓN DE PARTE DE ESTUDIANTES
CONFLICTIVOS QUE SUS COMPAÑEROS EN CLASES REGULARES?**

Se pide que lea el presente documento para asegurar que ha recibido información sobre la naturaleza del estudio de investigación descrito aquí y que entiende en qué consiste el estudio y en que manera va a participar su niño(a), si es que consiente que participe. Su firma en este documento indica que ha recibido la información y que está de acuerdo en participar. Los reglamentos federales requieren que, antes de participar, otorgue su consentimiento por escrito habiendo recibido previamente la información sobre este estudio de investigación de modo que, conociendo la naturaleza del estudio y los riesgos de su participación, puede decidir libremente si su niño(a) participa o no.

PROPOSITO

El propósito de esta investigación será evaluar si los estudiantes en educación especial sufren más de intimidación o agresión por parte de estudiantes conflictivos que otros estudiantes, y si alguna discapacidad presente más riesgo que otra para ser víctima. Los estudiantes son invitados a participar voluntariamente en esta investigación, donde su participación consiste en llenar dos cuestionarios sobre sus experiencias en sus escuelas.

CRITERIO PARA SELECCIÓN

Se invita a su niño(a) a que participe porque es Hispano y su nombre fue escogido por su asistencia en la registración de los estudiantes Hispanos en grados 3-12 en el distrito Sunnyside. Aproximadamente 540 estudiantes son invitados a participar en esta investigación.

PROCEDIMIENTO(S)

Sí permite que su niño(a) participe, se pide que autorice a lo siguiente: Que su niño(a) complete dos cuestionarios (con ayuda sí lo necesita) sobre sus experiencias con otros niños en su escuela. La administración de los cuestionarios será en el salón de su niño(a) durante tiempo de trabajo independiente, mientras que otros estudiantes hacen sus tareas, y tomará aproximadamente 20-30 minutos. Su niño(a) puede rehusar a cualquier o todas las preguntas si no quiere contestar, y su participación no afectará sus calificaciones.

RIESGOS

Sí su niño(a) ha sido víctima de agresión o intimidación de parte de estudiantes conflictivos, hay la posibilidad que cuando completa estos cuestionarios se podrá sentir mal.

BENEFICIOS

La intimidación de parte de estudiantes conflictivos puede tener consecuencias graves en el desarrollo emocional de los estudiantes, y también contribuye a la violencia en nuestras escuelas. Al participar en esta investigación, los estudiantes darán información crítica para saber si los estudiantes agresivos intimidan más a los estudiantes de educación especial que a otros niños. Las respuestas de su niño(a) ayudarán a nuestras escuelas a entender mejor cuales niños son más propensos a ser víctimas de agresión de parte de estudiantes conflictivos que intimidan a sus compañeros, y así ayudar a las escuelas a evitar éstas intimidaciones.

CONFIDENCIALIDAD

Cada cuestionario se codificará con información sobre grado escolar, sexo, y la discapacidad (sí tiene) de cada estudiante, pero no hay ninguna información por la cual se podría identificar que cuestionarios fueron completados de su niño(a).

COSTO Y COMPENSACIÓN DE PARTICIPACIÓN

No hay ningún costo por participar en esta investigación. Sin embargo, la participación requiere 30 minutos de tiempo en el salón regular. Ni Usted o su niño serán compensados por tomar parte en este estudio.

CONTACTOS

Usted puede obtener información adicional del investigador principal, Árni Víkingur Sveinsson, MA, candidato de doctorado, a el numero (520) 545-3027. Si tiene preguntas con respecto a sus derechos, puede llamar la oficina de Comité de Sujetos Humanos a (520) 626-6721.

AUTORIZACIÓN:

Antes de haber dado mi consentimiento por medio de mi firma en este documento, me explicaron los métodos, inconvenientes, riesgos y beneficios del estudio y contestaron todas mis preguntas. Puedo hacer preguntas en cualquier momento y estoy en libertad de cancelar mi participación en este proyecto en cualquier momento sin ofender a nadie. El investigador o el patrocinador del proyecto podrá terminar la participación de mi niño(a) y me explicarán las razones que tengan para ello. Me darán oportunamente, a medida que se obtenga durante el transcurso del estudio, toda nueva información que pudiera afectar mi buena voluntad para seguir participando. Este formulario de consentimiento se archivará en el lugar designado por el Comité de Sujetos Humanos (*Human Subjects Committee*) y el acceso a este documento se limitará al investigador principal, Árni Víkingur Sveinsson, MA, candidato de doctorado, o al representante autorizado del Departamento de Educación Especial, Rehabilitación, y Psicología Escolar. Al firmar este documento no renuncio a ninguno de mis derechos legales. Me darán una copia firmada de este documento.

Nombre del niño

Firma de padre, madre o guardián legal

Fecha

TESTIMONIO DEL INVESTIGADOR

He explicado cuidadosamente al participante la naturaleza de este estudio. Certifico que a mi modo de entender la persona que firma esta forma de consentimiento entiende claramente la naturaleza, demandas, beneficios y riesgos involucrados por su participación y que su firma es legalmente válida. Ningún problema médico o de lenguaje o barrera educativa impide este entendimiento.

Firma del Presentador

Fecha

Firma del Investigador

Fecha

APPENDIX F: SUBJECT'S CONSENT FORMS (ENGLISH AND SPANISH)

APPROVED BY UNIVERSITY OF AZ IRB
THIS STAMP MUST APPEAR ON ALL
DOCUMENTS USED TO CONSENT SUBJECTS.
DATE: 9/13/04 EXPIRATION: 9/13/05

SUBJECT'S CONSENT FORM

SCHOOL BULLYING AND DISABILITY IN HISPANIC YOUTH: ARE SPECIAL EDUCATION STUDENTS AT GREATER RISK OF VICTIMIZATION BY SCHOOL BULLIES THAN NON- SPECIAL EDUCATION STUDENTS?

You are being asked to read the following material to ensure that you are informed of the nature of this research study and of how you will participate in it, if you consent to do so. Signing this form will indicate that you have been so informed and that you give your consent. Federal regulations require written informed consent prior to participation in this research study so that you can know the nature and risks of your participation and can decide to participate or not participate in a free and informed manner.

PURPOSE

The purpose of this research is to find out whether students in special education are bullied more often than other students, and if students with any particular disability are at higher risk of being bullied. Students are being invited to participate voluntarily in this research project, which consists of filling out two questionnaires about their experiences at school.

SELECTION CRITERIA

You are being invited to participate because you were selected at random from a list of all registered Hispanic students in grades 3 through 12 in the Sunnyside Unified School District. Approximately 540 other students were invited to participate in this study.

PROCEDURE(S)

If you agree to participate, you will be asked to consent to the following: Complete two questionnaires that contain questions regarding your experiences with other students at school. Administration of the questionnaires will take place in your classroom on a normal school day during independent study time while other students work on classroom assignments, and will take about 10 to 15 minutes for each questionnaire. You may skip responding to any or all questions if you do not want to respond. Whether you choose to participate or not will not have any effect on your grades.

RISKS

If you have been bullied in the past, responding to the questionnaires may remind you of those unpleasant experiences.

BENEFITS

Bullying can have serious consequences for the emotional well-being of school children, and negatively affect school climate. Through participation in this research project, students will provide important information about whether students in special education are bullied more often than other students. Your responses will help schools better understand if some children are more likely to be bullied, and help to prevent future bullying of these children.

CONFIDENTIALITY

Each questionnaire will have codes about your grade, gender, and disability (if any), but will not contain any identifying information about you, making your responses anonymous.

PARTICIPATION COSTS AND SUBJECT COMPENSATION

There are no costs involved for participation in this study. However, your participation will involve approximately 30 minutes of classroom time. You will not be compensated for participating in this study.

CONTACTS

You can obtain further information from the principal investigator, Árni Víkingur Sveinsson, M.A., Ph.D. Candidate, at (520) 545-3027. If I have questions concerning my rights, I may call the Human Subjects Committee office at (520) 626-6721.

AUTHORIZATION

Before giving my consent by signing this form, the methods, inconveniences, risks, and benefits have been explained to me and my questions have been answered. I may ask questions at any time and I am free to withdraw my child from the project at any time without causing bad feelings. My participation in this project may be ended by the investigator for reasons that would be explained. New information developed during the course of this study which may affect my willingness to continue in this research project will be given to me as it becomes available. This consent form will be filed in an area designated by the Human Subjects Committee with access restricted by the principal investigator, Árni Víkingur Sveinsson, Ph. D. Candidate, or authorized representative of the Special Education, Rehabilitation, and School Psychology Department. I do not give up any of my legal rights by signing this form. A copy of this signed consent form will be given to me.

Subject's Signature

Date

Signature of Parent/Legal Guardian

Date

INVESTIGATOR'S AFFIDAVIT:

Either I have or my designee has carefully explained to the subject the nature of the above project. I hereby certify that to the best of my knowledge the person who signed this consent form was informed of the nature, demands, benefits, and risks involved in his/her participation.

Signature of Presenter

Date

Signature of Investigator

Date

APROBADO POR EL IRB DE LA UNIVERSIDAD DE ARIZONA. ESTE SELLO DEBE APARECER EN TODOS LOS DOCUMENTOS USADOS PARA OBTENER EL CONSENTIMIENTO DE LOS PACIENTES.

FECHA: 7/13/04 VENCIMIENTO: 7/13/05

FORMA DE CONSENTIMIENTO DEL SUJETO

LA CONDUCTA DE INTIMIDACIÓN Y AGRESIÓN Y LA DISABILIDAD: ¿ES POSIBLE QUE ESTUDIANTES HISPANOS EN EDUCACIÓN ESPECIAL SUFRÁN MÁS DE INTIMIDACIÓN Y AGRESIÓN DE PARTE DE ESTUDIANTES CONFLICTIVOS QUE SUS COMPAÑEROS EN CLASES REGULARES?

Se pide que lea el presente documento para asegurar que ha recibido información sobre la naturaleza del estudio de investigación descrito aquí y que entiende en qué consiste el estudio y en que manera va a participar, si es que consiente que participe. Su firma en este documento indica que ha recibido la información y que está de acuerdo en participar. Los reglamentos federales requieren que, antes de participar, otorgue su consentimiento por escrito habiendo recibido previamente la información sobre este estudio de investigación de modo que, conociendo la naturaleza del estudio y los riesgos de su participación, puede decidir libremente si participa o no.

PROPOSITO

El propósito de esta investigación será evaluar si los estudiantes en educación especial sufren más de intimidación o agresión por parte de estudiantes conflictivos que otros estudiantes, y si alguna discapacidad presente más riesgo que otra para ser víctima. Los estudiantes son invitados a participar voluntariamente en esta investigación, donde su participación consiste en llenar dos cuestionarios sobre sus experiencias en sus escuelas.

CRITERIO PARA SELECCIÓN

Se invita a que participe porque Usted es Hispano y su nombre fue escogido por su asistencia en la registración de los estudiantes Hispanos en grados 3-12 en el distrito Sunnyside. Aproximadamente 540 estudiantes son invitados a participar en esta investigación.

PROCEDIMIENTO(S)

Sí Usted es de acuerdo en participar, se pide que autorice a lo siguiente: Que complete dos cuestionarios (con ayuda sí lo necesita) sobre sus experiencias con otros niños en su escuela. La administración de los cuestionarios será en su salón regular durante tiempo de trabajo independiente, mientras que otros estudiantes hacen sus tareas, y tomará aproximadamente 20-30 minutos. Usted puede rehusar a cualquier o todas las preguntas si no quiere contestar, y su participación no afectará sus calificaciones.

RIESGOS

Sí Usted ha sido víctima de agresión o intimidación de parte de estudiantes conflictivos, hay la posibilidad que cuando completa estos cuestionarios se podrá sentir mal.

BENEFICIOS

La intimidación de parte de estudiantes conflictivos puede tener consecuencias graves en el desarrollo emocional de los estudiantes, y también contribuye a la violencia en nuestras escuelas. Al participar en esta investigación, los estudiantes darán información crítica para saber si los estudiantes agresivos intimidan más a los estudiantes de educación especial que a otros niños. Sus respuestas ayudarán a nuestras escuelas a entender mejor cuales niños son más propensos a ser víctimas de agresión de parte de estudiantes conflictivos que intimidan a sus compañeros, y así ayudar a las escuelas a evitar éstas intimidaciones.

CONFIDENCIALIDAD

Cada cuestionario se codificará con información sobre grado escolar, sexo, y la discapacidad (sí tiene) de cada estudiante, pero no hay ninguna información por la cual se podría identificar que cuestionarios fueron completados de Usted.

COSTO Y COMPENSACIÓN DE PARTICIPACIÓN

No hay ningún costo por participar en esta investigación. Sin embargo, la participación requiere 30 minutos de tiempo en el salón regular. Usted no será compensado por tomar parte en este estudio.

CONTACTOS

Usted puede obtener información adicional del investigador principal, Árni Víkingur Sveinsson, MA, candidato de doctorado, a el numero (520) 545-3027. Si tiene preguntas con respecto a sus derechos, puede llamar la oficina de Comité de Sujetos Humanos a (520) 626-6721.

AUTORIZACIÓN:

Antes de haber dado mi consentimiento por medio de mi firma en este documento, me explicaron los métodos, inconvenientes, riesgos y beneficios del estudio y contestaron todas mis preguntas. Puedo hacer preguntas en cualquier momento y estoy en libertad de cancelar mi participación en este proyecto en cualquier momento sin ofender a nadie. El investigador o el patrocinador del proyecto podrá terminar mi participación) y me explicarán las razones que tengan para ello. Me darán oportunamente, a medida que se obtenga durante el transcurso del estudio, toda nueva información que pudiera afectar mi buena voluntad para seguir participando. Este formulario de consentimiento se archivará en el lugar designado por el Comité de Sujetos Humanos (*Human Subjects Committee*) y el acceso a este documento se limitará al investigador principal, Árni Víkingur Sveinsson, MA, candidato de doctorado, o al representante autorizado del Departamento de Educación Especial, Rehabilitación, y Psicología Escolar. Al firmar este documento no renuncio a ninguno de mis derechos legales. Me darán una copia firmada de este documento.

Firma del Sujeto

Fecha

Firma de padre, madre o guardián legal

Fecha

TESTIMONIO DEL INVESTIGADOR

He explicado cuidadosamente al participante la naturaleza de este estudio. Certifico que a mi modo de entender la persona que firma esta forma de consentimiento entiende claramente la naturaleza, demandas, beneficios y riesgos involucrados por su participación y que su firma es legalmente válida. Ningún problema médico o de lenguaje o barrera educativa impide este entendimiento.

Firma del Presentador

Fecha

Firma del Investigador

Fecha

APPENDIX G: MINOR SUBJECT'S ASSENT FORM

APPROVED BY UNIVERSITY OF AZ IRB
 THIS STAMP MUST APPEAR ON ALL
 DOCUMENTS USED TO CONSENT SUBJECTS.
 DATE: 9/13/09 EXPIRATION: 9/13/05

Minor Subject's Assent Form

The Reynolds Bully Victimization Scale for Schools and The Olweus Bully/Victim Questionnaire

Your mother/father/guardian has told me it was okay for you to answer the questions on these two questionnaires, but you don't have to do it if you don't want to. The questions are about things that sometimes happen to kids at school. We are trying to see how often these things happen to you and some other kids in your school. It will take about 20 to 30 minutes to answer all the questions. If you choose to take part and answer the questions, you will do so during independent study time. If you don't want to do it, you can do your regular schoolwork instead. Whether you choose to participate or not will not affect your grades. If there are any questions you don't want to answer, you don't have to. And if for any reason you feel upset after answering these questions, your school counselor or I are available to talk to you about it.

Your name will not be on the questionnaires, only some numbers and letters. No one will know which questionnaires are yours. Do you understand? Is it OK?

 Subject's Name

 Subject's Signature

 Date

 Investigator's Signature

 Date

 Presenter's Signature

 Date

APPENDIX H: ANOVA AND MANOVA SUMMARY TABLES FOR HYPOTHESIS I

Summary Table for ANOVA Conducted on the *Bully Victimization Scale* Raw Score for Disability Status x School Level.

| | Degrees of Freedom | Mean Square | <i>F</i> | Significance |
|------------------------|--------------------|-------------|----------|--------------|
| Disability Status (DS) | 1, 39 | 864.073 | 6.211 | .017 |
| School Level (SL) | 1, 39 | 153.891 | 1.106 | .299 |
| DS x SL | 1, 39 | 10.473 | .075 | .785 |

Summary Table for MANOVA Conducted on the *Olweus' Bully/Victimization Questionnaire* Key Variable Score and Total Score for Disability Status x School Level

| | Degrees of Freedom | Hotelling's Trace | Significance |
|------------------------|--------------------|-------------------|--------------|
| Disability Status (DS) | 2, 38 | .107 | .146 |
| School Level (SL) | 2, 38 | .002 | .964 |
| DS x SL | 2, 38 | .008 | .785 |

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