

Triple Threat? An Examination of Comorbid Anxiety and Depression Along the Bully/Victim Continuum

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INTRODUCTION

- Bullying and victimization are ubiquitous phenomena among school aged youth involving 29.9% to 90% of students during their school careers (Nansel et al., 2001; Hoover, Oliver & Hazler, 1991).
- Involvement in bullying interactions and concurrent depression and/or anxiety has been well documented in research. Depression is likely to occur equally among bullies and bully-victims, and is most common in bully-victims (Kaltiala-Heino, Rimpela, Marttunen, Rimpela & Rantanen; 1999)
- Bully-victims are more likely to be depressed than victims; and bully-victims and victims are more likely to experience anxiety than bullies (Swearer, Song, Cary Eagle & Mickelson; 2001)
- The presence of comorbid anxious and depressive disorders in youth has also been well documented, with 25-50% of depressed youth also diagnosed with an anxiety disorder (Axelson & Birmaher, 2001); and 10%-72% of anxious youth diagnosed with a depressive disorder (Axelson & Birmaher, 2001; Essau, 2003).
- An extensive search of the literature spanning the past 20 years found no studies that examined the comorbid relationship between anxiety and depression among youth involved in bullying.
- The purpose of this study is to examine the comorbidity of depression and anxiety in self-identified bullies, victims, bully-victims as compared to those students who witness bullying (i.e., bystanders)

PARTICIPANTS

- 281 students (151 male, 130 female) participated in the study.
- The mean age at Time 1 was 11.52; at Time 2: 12.63; and at Time 3: 13.59.
- All participants were in sixth grade at Time 1, in seventh grade at Time 2, and in eighth grade at Time 3.
- Racial distribution of the students in the study is as follows: 62.3% Caucasian, 11.4% African American, 8.5% Asian, 6.8% Biracial, 6.0% Latino(a), 1.4% Middle Eastern, 1.1% Native American, 7% Eastern European, and 1.8% identifying as "other ethnicity."

PROCEDURES

- Data were collected each spring during years 1999-2003 from 6th, 7th and 8th graders at a Midwestern middle school.
- Active parental consent and youth assent were obtained for each student participant.
- Student participants completed a series of instruments which were administered during the school day and took approximately 1 hour to complete.
- Student participants were grouped according to status (i.e., bully, bully-victim, victim or bystander) based upon their responses on the Bully Survey (Swearer, 2001).

MEASURES

The Bully Survey-Student Version (BYS-S) Swearer, 2001. The Bully Survey-Student Version is a four part survey that queries students regarding their experiences with bullying, perceptions of bullying, and attitudes toward bullying. Bullying is defined as: **"Anything from teasing, saying mean things, or leaving someone out of a group to physical attacks (hitting, pushing, kicking) where one person or a group of people picks on another person over a long time. Bullying refers to things that happen in school but can also include things that happen on the school grounds or going to and from school."** In part A, students answer questions about when they were victims of bullying during the past year. Part B of the survey addresses questions about the participants' observations of bullying behavior among their peers during the past year (bystander). Part C requests information from the participants about when they have bullied other students.

Multidimensional Scale for Children (MASC) March, 1997

This instrument is a self-report checklist assessing major dimensions of anxiety in children ages 8 to 19. The MASC consists of 39 items and covers 4 basic scales (Physical Symptoms, Harm Avoidance, Social Anxiety, and Separation/Panic), when combined create a scale measuring Total Anxiety. Individuals are asked to rate the severity of each item based upon a four-point Likert scale. T-scores greater than 65 differentiate youth with an anxiety disorder diagnosis from youth without an anxiety disorder diagnosis (March, 1997). The MASC has demonstrated acceptable internal consistency reliability for all main factors and subscores, including a total score coefficient alpha of .90 (March, Parker, Sullivan, Stallings, & Conners, 1997). Additionally, the MASC has demonstrated satisfactory to excellent test-retest reliability (March, Sullivan, & Parker, 1999).

Children's Depression Inventory (CDI) Kovacs, 1992, 2002

This instrument is the most commonly used self-report measure of depression for children 7 to 17 years of age. The CDI consists of 27 items designed to assess the overt symptoms of childhood depression. The CDI measures five highly-correlated factors: Negative Mood, Interpersonal Problems, Ineffectiveness, Anhedonia, and Negative Self-Esteem. These five factors are combined to yield one higher-order factor of childhood depression. Participants are asked to rate the severity of each item on a three-point scale of 0 to 2 during the two weeks prior to testing. Total scores of 19 or greater are considered to indicate potential depression (Stark, 1990). The CDI has demonstrated acceptable internal consistency and test-retest reliability as well as convergent validity (Kovacs, 1992).

RESULTS

Figure 1 Baseline Growth Model for CDI

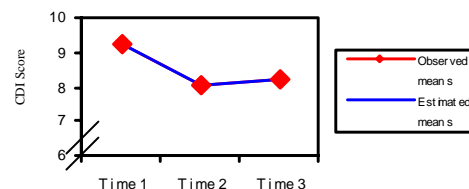


Figure 2 Baseline Growth Model for MASC

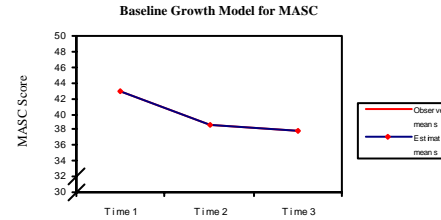


Figure 3 Bully/Victim Status and Standardized CDI Scores

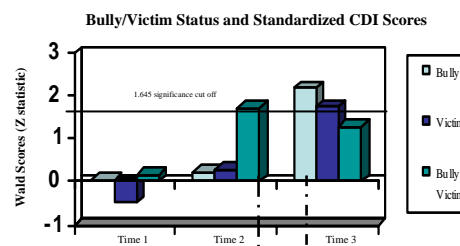
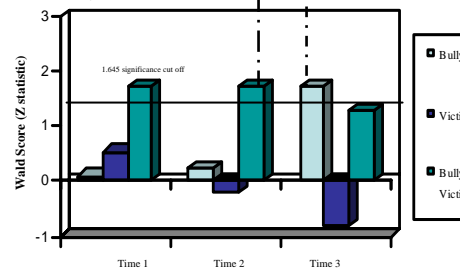


Figure 4 Bully/Victim Status and Standardized MASC Scores



RESULTS, continued

- A Growth Curve Model of depression and anxiety using bully/victim status as a time variant covariant is presented.
- As shown in Figures 1 and 2, there was significant variability in the intercept in initial status and slope for both the CDI and MASC factors.
- This significance justified the addition of covariates (e.g., Bully/Victim status) to the model to predict intercept and slope variability in both CDI and MASC scores.
- Figures 3 and 4 illustrate the significant intercept and slope variability after the addition of the covariate Bully/Victim status in both the CDI and MASC factor scores.
- Specifically, bully-victims differed significantly from bystanders in reports of anxiety at Time 1 (1.730, $p < .05$; one tailed test), and differed significantly from bystanders in report of both depression (1.696, $p < .05$; one tailed test) and anxiety at Time 2 (1.731, $p < .05$; one tailed test).
- Victims differed significantly from bystanders in report of depression at Time 3 (1.749, $p < .05$; one tailed test).
- Bullies differed significantly from bystanders in report of both depression (2.186, $p < .05$; one tailed test) and anxiety (1.722, $p < .05$; one tailed test) at Time 3.

DISCUSSION

- Significant slope and intercept and quadratic fixed effects observed in the baseline growth models for CDI and MASC were no longer significant when BSVI was added as time-varying covariates.
- As shown in this study, those students actively involved in bullying (i.e., bully-victim and bully) report significantly higher levels of both depression and anxiety than students more passively involved (i.e., bystanders).
- Further analysis of students who are bully-victims in Time 2, as well as students who are bullies in Time 3 appears to be warranted.
- These students (bullies and bully-victims) would be optimal to focus intervention, as they are the most impaired.

LIMITATIONS

- The measures used in this study were self-report. While research has illustrated the accuracy of this method, future research utilizing multiple informant such as parent and/or teacher might further validate or enhance these findings.
- Future studies should include a larger sample, in attempt to decrease the standard error. This would also potentially allow for analysis of comorbid depression and anxiety across individual participants over time.
- Given that the sample used in this study was a community sample, few subjects endorsed clinically significant levels of depression and anxiety.
- Analysis of reported comorbid depression and anxiety across students considered "actively" involved in bullying (i.e., bully, bully-victim, victim and bystander) as compared to those not involved might provide additional meaningful information.