SOCIO-EMOTIONAL AND CLINICAL PROFILE OF BULLIED YOUTH IN A CLINIC

SETTING: ASSESSING BULLYING-RELATED FUNCTIONAL IMPAIRMENT

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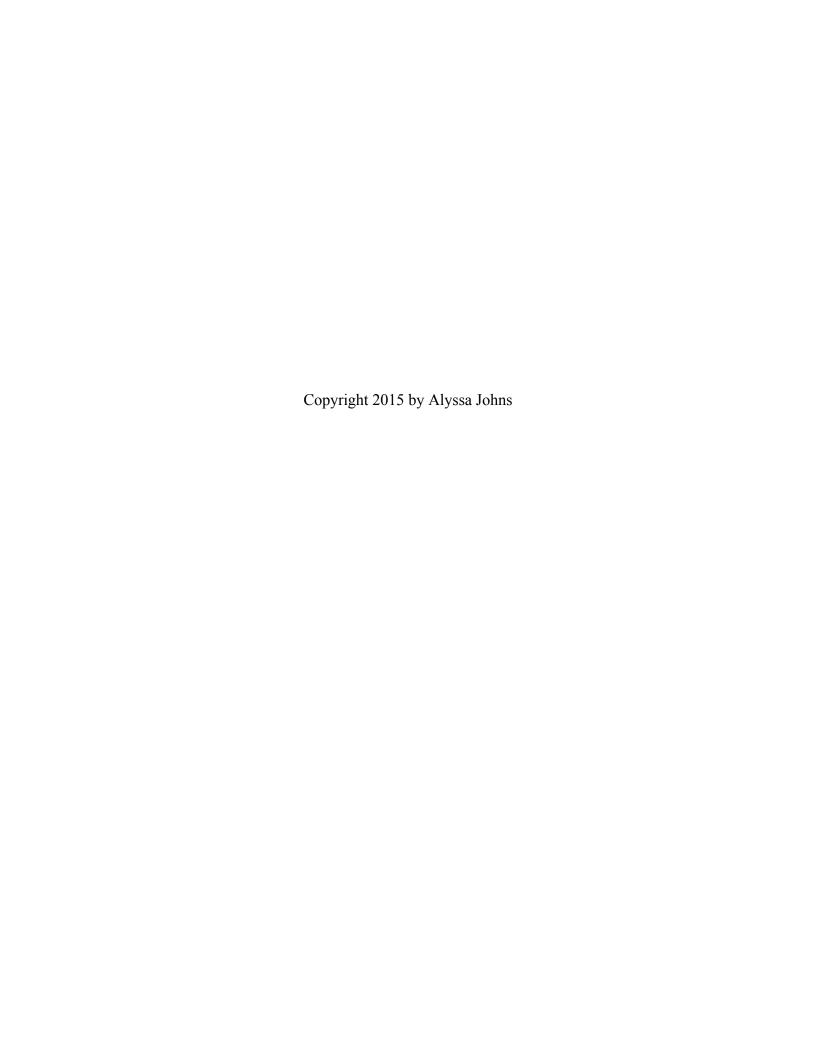IN PARTIAL FULFILLMENT OF THE

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Abstract

Community and school research has identified bullying as a pervasive and significant problem for school-age youth. Less emphasis has been placed on bullying-related impairment in clinic settings, but treatment-seeking youth with a history of bullying may have specific needs that deserve attention. Limited information regarding the clinical profile and socio-emotional functioning of bullied youth leave clinicians with little information to guide treatment planning and services. The present study completed retrospective interviews with youth and young adults who had previously sought treatment for anxiety and/or depression at a university-based outpatient clinic. Participants (N=85; youth = 60; adults = 25) completed diagnostic and symptom assessment at the original point of clinic contact and completed bullying-specific interview procedures nine months to eight years after clinic contact (M = 4.23 years). The majority of participants (51.7%) endorsed being bullied at least once or twice in the year prior to seeking mental health services. However, bullied and non-bullied youth did not differ on most measures of anxiety and depression symptoms, according to youth, father, and mother reports. This study also examined the psychometric properties of the Multidimensional Bullying Impairment Scale (MBIS), a self-report scale designed to assess functional impairment related to bullying. Results suggested the MBIS and its a priori subscales had strong internal reliability. Exploratory factor analysis supported a five-factor model, but further analysis suggested that a single total score might represent the construct best. Correlations amongst functional impairment and anxiety and depression symptoms highlighted interesting patterns. Functional impairment was found to be strongly related to depression and moderately correlated with anxiety symptoms. As predicted, bullying related impairment was not found to be positively correlated with externalizing symptoms. Together, results suggest the MBIS may be a promising tool to evaluate

bullying-related functional impairment that has concurrent and discriminative validity. Overall,

these findings confirm that bullying is a pervasive problem among service-users and provide

broad implications in the assessment and treatment of anxious and depressed youth. Implications

of these findings for clinical practice and future research are discussed.

Keywords: bullying, anxiety, depression, treatment-seeking, functional impairment

To Kathy McLean

For her hard work, warm heart, and support during my time at GSAPP.
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Introduction

Bullying has become an area of increasing concern in the health care, education, and public policy sectors due to its high prevalence rates and the resulting negative impact bullying has on the psychological functioning of youth. Studies have shown that up to 75% of secondary-school students report having been the targets of peer harassment (e.g., name calling, hitting, kicking, rumors, and social exclusion) at least occasionally during school (Nishina, Juvonen & Witkow, 2005). There is also growing evidence that bullying is associated with longer-term mental health effects, such as higher psychiatric symptom levels (Fosse, 2006), low self-esteem, and poorer social relationships (Schafer et al., 2004). These statistics highlight the need to study the nature and correlates of bullying, particularly in youth who exhibit mental health problems. This information can be used to gain further insight into how bullying directly affects the well-being and adaptive functioning of youth and better identify methods of intervention.

Definition of Bullying

Most researchers have adopted Olweus's (1993) definition of bullying, which states that, "[a] person is being bullied when he or she is exposed, repeatedly over time, to negative actions on the part of one or more other persons" (p. 9). Bullying is differentiated from normative interpersonal conflict insofar as bullying entails an imbalance of power, intent to cause harm, and occurs repeatedly (Chu, Hoffman, Johns, Reyes-Portillo, & Hansford, 2014). There has been controversy around this formalized definition, particularly in school settings, where clear incidents of bullying may occur but do not satisfy the requirements of the definition. However, most agree that bullying includes four types of aggressive behavior: verbal (e.g., name-calling, teasing), psychological or relational (e.g., breaking up friendships, spreading rumors, social exclusion), physical (e.g., physical aggression, stealing belongings) and cyber (i.e., using the

internet, mobile phone, or other digital technology to harm others; New Jersey Department of Education, 2011). Increased local and national attention around lesbian, gay, bisexual, transgender, and questioning (LGBTQ) status has also shed light on the relation between sexual minority status and bullying.

Socio-emotional Correlates of Bullying

Research has identified clear links to mental health difficulties as a result of bullying. Victimization has been associated with school avoidance and lack of participation in class, (Buhs, Ladd, & Herald, 2006; Juvonen, Nishina, & Graham, 2000), lower achievement and feeling unsafe in school (Glew, Fan, Katon, Rivara, & Kernic, 2005), somatic complaints, such as headaches, stomachaches, bed-wetting, and sleep problems (Williams, Chambers, Logan, & Robinson, 1996), and social skills deficits (Egan & Perry, 1998; Rubin, Coplan, & Bowker, 2009; Schwartz, Dodge, & Coie, 1993). Bullying can also lead to further rejection and isolation, as peers might be reluctant to befriend or defend targeted youth (Coie, Dodge, & Kupersmidt, 1990).

Anxiety/Depression

Prospective studies highlight that anxiety and mood problems are prevalent in bullied youth. A meta-analysis has shown that bullying is significantly related to generalized anxiety and social anxiety (Hawker & Boulton, 2000). Others have found evidence that victims are three times more likely than non-victims to experience an anxiety disorder (Kumpulainen, Räsänen, & Puura, 2001). A similar relationship has been found between bullying and depression where victims tend to be more socially withdrawn, exhibit higher levels of depression and have lower self-worth than children who are not bullied (Nishina & Juvonen, 2005). Most alarming,

however, is the association between bullying and increased levels of suicidal ideation that has been identified among high school students (Klomek, Sourander, & Gould, 2007).

Poor Social and School Adjustment

Educators have also noted the impact of bullying on school avoidance and academic achievement. Children who are repeatedly bullied tend to dislike the school environment (Fosse, 2006; Rigby & Slee, 1993) and report more absenteeism than their non-bullied peers (Fosse, 2006; Rigby, 1997). Frequent victimization may also lead to lower academic achievement (Card & Hodges, 2008) and impaired concentration (Sharp, 1995). School life can be particularly challenging not only in the academic realm but also in navigating social situations. Building and maintaining friendships in school may be difficult as victims of bullying are more likely than non-victims to be perceived by peers and teachers as lacking social skills (Fox & Bouton, 2005). As a result, bullied youth tend to demonstrate poorer social and emotional adjustment, poorer relationships with classmates, and greater loneliness (Nansel et al., 2001). These factors may increase the vulnerability of future bullying incidents, as youth who are socially isolated and lack social skills may be easy targets for aggressive children (Nansel et al., 2001).

Relationship Between Mental Health Problems and Bullying

While research has demonstrated consistent impairment in social, emotional, and academic domains as a result of bullying, the sequence and relationship of these correlates are less understood. Some findings regarding the relation between bullying and psychosocial difficulties suggest that the association may be reciprocal (Nishina et al., 2005) while a small number of short-term longitudinal studies indicate some causal influence of being bullied (Kochenderfer & Ladd, 1996; Kochenderfer-Ladd & Wardrop, 2001; Schaefer et al., 2004). Thus, anxiety and mood problems appear to be a consistent consequence of bullying, and

internalizing problems may be a significant predictor of future victimization (Cluver, Bowes, & Gardner, 2010). To better understand this complex relationship, more precise assessment tools are needed to distinguish bullying impairment from other symptoms of anxiety/depression.

Assessment of Bullying and Socio-Emotional Factors

Evidence-based practice stresses the importance of utilizing a comprehensive approach of assessment, prevention and intervention (Batsche, 1997; Crothers, & Levinson, 2004; Olweus, 1993; Ross, 1996). In order to better understand the nature of bullying-related problems and intervene effectively, data should be gathered on multiple domains of functioning and psychometrically sound assessment measures must be utilized. While self-report measures continue to be the most popular tool for examining the prevalence of bullying behavior in schools (Hulsey, 2008), other assessment methods have also proven to be effective. For example, observations, interviews, sociometric measures, surveys, questionnaires and teacher rating scales have been used in the literature to examine bullying among youth.

To date, the Olweus's Bully/Victim Questionnaire (OBVQ; Olweus 1983) is the most frequently used tool for assessing problems related to bullying. A revised version of this questionnaire was developed in 1996 to include additional forms of specific bullying (i.e., racial and sexual forms of bullying/harassment) and to set forth a clear standard of when teasing should and should not be considered bullying (Solberg & Olweus, 2003). The Revised Olweus Bully/Victim Questionnaire (OBVQ; Olweus, 1996) is typically administered in a paper-and-pencil format and begins with a definition of bullying. It then assesses the frequency of multiple types of bullying behavior, the location of any bullying, who does the bullying, and how often children report bullying to teachers and family members. The OBVQ has been shown to have

strong psychometric properties (Kyriakides, Kaloyirou, & Lindsay, 2006; Pellegrini, Bartini, & Brooks, 1999) and is moderately correlated with peer nomination techniques (Ross, 1996).

In efforts to more efficiently and comprehensively assess childhood bullying, several other self-report measures have been developed. Similar to the OBVQ, the Peer Relations Questionnaire (PRQ; Rigby & Slee, 1993) assesses the extent to which youth are bullied and/or bully others. Examining the type of bullying behavior (i.e., physical, verbal, relational, cyber) is another factor that is commonly assessed. Scales that analyze this aspect of bullying include the Peer-Victimization Scale (PVS; Neary and Joseph, 1994), Bullying-Behaviour Scale (BBS; Austin & Joseph, 1996) and the Social Experience Questionnaire (SEQ; Crick & Grotpeter, 1996). Several scales also include additional composite scores that measure related constructs such as prosocial behavior (i.e., SQAB, PRQ, SEQ), aggressive behavior (i.e., SQAB), and school climate (i.e., The School Climate Bullying Survey).

A notable gap in the literature is the lack of assessment tools evaluating the day-to-day impairment associated with bullying, such as any family conflict, peer relation disruption, or academic deterioration that occurs secondary to bullying. Prior studies have focused on assessing the frequency and intensity (i.e., pervasiveness) of bullying and its relation to varying symptoms, symptom profiles, or diagnostic endpoints (McKnight & Kashdan, 2009). However, these approaches provide us with a limited understanding of global functioning across essential psycho-social-medical domains (i.e., school, social, family, physical) associated with bullying. An assessment of functional impairment would provide a clearer picture of how a stressful event impacts a youth in day-to-day living, which may more directly predict meaningful developmental outcomes than frequency counts of types of bullying. Functional impairment can include assessment across a range of outcomes, including, change in grades, standardized test

scores, attendance, discipline records, trips to the guidance office, peer relations, family conflict, extracurricular activities, and self-care. To our knowledge, no measures have been developed to directly assess this kind of impairment in bullying samples.

The Multidimensional Bullying Impairment Scale

To provide a measure that specifically assesses functional impairment directly related to bullying experiences, Chu, Hoffman, Johns, Reyes-Portillo, and Hansford (2014) developed the Multidimensional Bullying Impairment Scale (MBIS). The MBIS was designed to better understand how youth respond to bullying events and their methods of coping by examining their thoughts and actions following these incidents. Items assess the degree of impairment following victimization by measuring the frequency that victimization negatively impacts *family relations* (e.g., "I argue with my family more often"), *peer relations* (e.g., "I would rather not see my friends"), *school performance* (e.g., "I have a hard time completing my assignments;" "I stay home from school more"), and *psychological wellbeing* (e.g., "I feel really bad about myself"). MBIS domains and items were based on a review of the literature and by adapting items from related symptom and impairment scales (e.g., Child Automatic Thoughts Scale; Schniering & Rapee, 2002; Behavioral Activation for Depression Scale; Kanter, Mulick, Busch, Berlin, & Martell, 2007; Response to Stress Questionnaire; Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000) but orient the impairment specifically to that resulting from bullying. This measure is novel in that most existing measures are solely designed to assess bullying prevalence, youth attitudes toward bullies and victims, student perception of teacher responsiveness to bullying, and related constructs such as, school climate, school culture, and typical peer relations (e.g., Rigby & Slee, 1993; Solberg & Olweus, 2003). No measure currently exists to assess the resultant socio-emotional consequences of being bullied and how that

impairment changes over time.

The MBIS was first used in a pilot study that included five, ethnically diverse 7th grade students (ages 12-13) who participated in a 14-week group behavioral activation treatment for bullied youth. Participants had all reported a school incident that qualified for a harassment, intimidation, or bullying (HIB) investigation. This measure was administered at pre-, mid-, and post-treatment to assess how bullying-specific impairment changed after participation in a bullying-specific intervention (Chu et al., 2014). The pilot study found that the youth understood the items and scale and the measure provided useful information for treatment planning, monitoring and evaluation. The MBIS provided preliminary evidence that it was sensitive to change as the three youth with more favorable diagnostic and symptom outcomes also reported lower post-treatment MBIS scores. The one youth with overall poorer treatment outcomes reported an increase in bullying impairment. Although these findings are promising, a formal psychometric evaluation (e.g., reliability, validity) is needed to determine the MBIS' usability across larger samples and age groups.

Use of Retrospective Report in Assessing Bullying

To date, the majority of bullying research has entailed at least moderate retrospective recall (e.g., reports of childhood bullying amongst college students or outpatient adult samples; Masia, 2003; Offer, Kaiz, Howard, & Bennett, 2000; Renk, Roberts, Klein, Rojas-Vilches, & Sieger, 2005). This has raised concerns, but others have found reliability concerns to be overstated (Bewin, Andrews, & Gotlieb, 1993). Several researchers have suggested that retrospective reports tend to be more reliable for highly salient, emotionally charged, and personally impactful events, such as bullying (Brewin et al., 1993; Rivers, 2001; Rubin & Kozin, 1984). Test-retest reliability from repeated assessments of bullying supports this notion. In a

study by Olweus (1993), findings revealed that former victims of bullying were accurate in their

self-reports of peer victimization up to seven years later. Similarly, Rivers (2001) found that

there was a great deal of consistency in recalling the nature and location of bullying experiences

at school when adult participants were re-examined approximately a year later. In a subsequent

study, Rivers (2004) replicated these findings and also found that participants established

reasonable degrees of test-retest reliability over a 12-14 month period when asked to recall when

childhood bullying began and its duration. Taken together, there is reason to believe that

retrospective reports have adequate reliability, even as investigators might prefer to assess as

close to a bullying event as possible.

   Several techniques have been successful to maximize accuracy when conducting

retrospective research. Brewin et al. (1993) suggested that structured questionnaires/interviews

facilitate recollection of past events over informal, open-ended interviews. Providing a series of

links or associations to specific dates and events can also help provide order to a participant's

reconstruction of events (Brewin et al., 1993). Shum (1998) suggests that "calendar reference

points," such as holidays, may facilitate recall by allowing individuals to locate and organize

memories. Such structuring can be helpful to recall details that can be forgotten even when

general memories remain relatively stable (Rivers, 2001).

Bullying in Treatment Seeking Populations

   To date, few studies have looked specifically at the prevalence and type of bullying

experiences present among mental health service users, but a growing set of research has

explored the presence and impact of bullying in both youth and adult treatment-seekers. In a

study conducted by Gladstone, Parker, and Malhi (2006), 226 adults were recruited from an

outpatient depression clinic and asked to recall their memories of being bullied during childhood.

Findings indicated that over a quarter of the sample reported a history of bullying, which was strongly related to increased levels of anxiety (Gladstone et al., 2006). The researchers also found that bullied subjects were more likely to be exposed to a range of childhood stressors, including a more negative relationship with parents, personal illness or disability, and being witness to or involved in a traumatic event (Gladstone et al., 2006). A similar study conducted by McCabe and colleagues (2003) surveyed clients of an adult outpatient anxiety disorders clinic to determine whether or not they had ever been bullied or severely teased during childhood or adolescence. Results indicated that a history of severe teasing and bullying experience was related to an earlier age of onset of their primary anxiety disorder (social phobia, obsessive-compulsive disorder, panic disorder), a greater number of reported problems in childhood (e.g., emotional/behavioral problems, legal trouble, school problems, drug abuse, or medical problems) and increased anxiety in social situations. Reports of being bullied in childhood have also been connected to both body dissatisfaction and eating disturbance in clinical samples (Rieves & Cash, 1996; Schwartz, Phares, Tantleff-Dunn, & Thompson, 1999; Thompson, 1996). Retrospective reports from adult clinic samples certainly suggest that child-onset bullying can have lasting effects.

Many have suggested that children who have been involved in bullying are more likely to come into contact with mental health professionals (Kumpulainen et al., 2001). In one youth outpatient clinic, 11 out of 26 participants rated being bullied as a "moderately important-very important" reason for seeking services (Dyer & Teggart, 2007), suggesting bullying may be an underlying factor behind common referrals such as school refusal or social anxiety (Luis, 2004). Nevertheless, few mental health providers routinely assess for problems related to bullying.

Studies in this area are needed to better understand how these problems uniquely impact clinical samples and treatment outcomes.

In Northern Ireland, Dyer and Teggart (2007) examined levels of bullying among 26 child and adolescent (ages 12-17) outpatients. Findings indicated that rates of bullying were higher (62%) among clinic clients than the general population, which has been estimated to be between 20% - 28% in national surveys (Dyer & Teggart, 2007). The most common type of bullying experienced by youth in the Dyer and Teggart (2007) study was verbal aggression in the form of name-calling and teasing (100% of bullied clients). Bullied clients also endorsed other forms of bullying such as being excluded on purpose (68.7%), being the target of a false rumor (68.7%), being called mean names with a sexual meaning (62.5%), threatened or forced to do things (43.8%), being called mean names about race or color (37.5%), hit, kicked, pushed or shoved (25%), having money or other personal belongings stolen or damaged (25%), being called mean names about religion (18.7%) or bullied in another way (43.8%). Kumpulainen et al. (2001) also found that children who were involved in bullying were more likely to have contact with mental health professionals. Thus, more research is needed to better understand the rates and trends of bullying experiences in a clinical population, and the general socio-emotional correlates of bullying at the time of treatment intake.

Current Study

The present study has two primary aims. The first aim is to obtain retrospective reports of experiences with bullying in youth and young adults who had previously sought treatment for anxiety and/or depression at a university-based outpatient clinic. By assessing bullying experiences in treatment-seekers, we hope to understand the scope and impact of bullying in a particularly vulnerable population. Bullying rates in this clinic population will be benchmarked

against national community rates (Gladden, Vivolo-Kantor, Hamburger, & Lumpkin, 2014; National Center for Education Statistics [NCES], 2013). We will also evaluate the relation between the subjective experience of being bullied ("How often were you bullied or teased") and various types of bullying with anxiety and depression symptoms at intake. It is hypothesized that rates of bullying will be higher among anxious/depressed participants compared to the general population. As seen in the study by Dyer and Teggart (2007), it is also predicted that verbal aggression will be the most frequent type of bullying behavior experienced by this population. Lastly, we predict that youth, who present for treatment, and also endorse past or current bullying experiences, will exhibit higher levels of anxiety and depression when compared to clinic clients who have not been bullied.

The second aim is to establish psychometric properties of the Multidimensional Bullying Impairment Scale. Based on gaps in the current literature (described above), this will be one of the first measures designed to assess functional impairment related to bullying. A formal psychometric evaluation of the MBIS, including scale reliability and exploratory factor analysis, will be conducted to determine the internal consistency and factor structure of the measure. The MBIS has not been used in community samples, and so benchmarking will not be possible. However, resulting scale scores (total and subscale scores) will be used in regression analysis to determine predictive/concurrent validity with anxiety and depression symptom measures. We hypothesize that all types of functional impairment will be related to higher levels of anxiety and depression. To show this relationship is unique, we will compare the degree of relation between anxiety/depression and functional impairment to the degree of relation between functional impairment and two comparison symptom scales (Child Behavior Checklist rule-breaking behavior, attention problems). We predict that MBIS subscales will have stronger relations to

anxiety and depression scores than to rule-breaking or attention problems. Finally, functional

impairment will be compared by gender, age group and across different levels of bullying history

(occurred "once or twice" versus "several times a month") to establish patterns that are

specifically related to bullying impairment. This analysis is exploratory and novel in that no

other studies have examined the consequences of bullying using this approach.

Methods

Participants

Participants were 85 youth and young adults ($n = 60$ between 8 – 17 years old; $n = 25$

between 18-25 years old) who had sought treatment services as children at a specialty anxiety

and depression clinic within a university setting between 2004 and 2014. At the time of clinic

intake, participants were all minors between the ages of 6-16 years old ($M = 11.52$, $SD = 2.60$).

The sample was 50.6% female and participants' ethnicity were: 71.8% White, 8.2 % multiracial,

7.1% Asian American, 4.7% Latino, 3.5% African American, and 2.4% who self-identified as

"other." There were missing data for two participants pertaining to ethnicity. In terms of

schooling, 77 (90.6%) participants attended public school, three (3.5%) attended private school,

two (2.4%) attended parochial school, and one (1.2%) attended a charter school. Two (2.4%)

participants indicated that they were receiving home instruction at the time of intake. Family

income range was broad: five (6%) between $10,000-29,999, 10 (11.9%) $30,000-49,999, 15

(17.8%) $50,000-79,999, 34 (40.5%) $80,000-$149,999, 17 (20.2%) over $150,000, and four

(3.6%) missing. The majority of participants ($N = 81$) met Diagnostic and Statistical Manual of

Mental Disorders (4th ed.; DSM-IV-TR; American Psychological Association, 2000) criteria for

a primary diagnosis including generalized anxiety disorder (GAD; 22.4%), major depressive

disorder (MDD; 20%), social anxiety disorder (SOP; 11.8%), specific phobia (SP; 10.6%), panic

disorder (PD; 8.2%), separation anxiety disorder (SAD; 10.6%), obsessive compulsive disorder (OCD; 4.7%), selective mutism (SM; 3.5%), dysthymia (DYS; 3.5%), oppositional defiant disorder (ODD; 1.2%) or pervasive developmental disorder, not otherwise specified (PDD NOS; 1.2 %). Two of the participants met subclinical criteria for a DSM-IV-TR disorder.

Measures

The Olweus Bully/Victim Questionnaire (OBVQ). The OBVQ (Solberg & Olweus, 2003), designed for grades 3-10, is used to assess experiences with being bullied and bullying others. A shortened and revised version of this measure (10 items; Appendix A) was used to assess the overall presence of being bullied, as well as specific items that assess nine different forms of bullying. All participants completed the OBVQ in the form of a phone interview.

The OBVQ begins by providing Olweus' definition of bullying in order to develop a standardized meaning of the bullying experience across all study participants. For this study, an additional prompt was added to normalize the experience of being bullied and orient respondents to the retrospective time frame. Respondents were reminded of their age and grade when they first sought treatment and instructed to think back to what it was like in the grade in which they came to the clinic, particularly the months leading up to clinic entry. The interviewer asked the respondent to recall important milestones to enhance recall of the year. Using this time frame, respondents then answered a single global question and nine specific items about types of bullying (1= it did not occur; 2= occurred once or twice; 3= occurred two or three times a month; 4= occurred about once a week; 5= occurred several times a week). Olweus and colleagues (Olweus, 1993) typically define "bullied" youth as a dichotomous variable (i.e., bullied youth are those who experienced bullying at least two or three times a month). However, others (Arora, 1996; Finkelhor, Turner, & Hamby, 2012) have defined bullying continuously. The OBVQ has

demonstrated adequate internal consistency (alpha > .80), and construct and criterion-related

validity have been reported (Solberg & Olweus, 2003). The adaptation of the questionnaire did

not compromise the psychometric integrity of the measure because question responses are

examined individually and are not totaled to form an overall score.

The Multidimensional Bullying Impairment Scale (MBIS). Participants who endorsed

any level of being bullied completed the MBIS (Refer to Appendix B). The MBIS is a recently

developed measure that assesses socio-emotional impairment related to bullying in school-aged

youth. The MBIS is a 20-item measure, rated 0 (not at all) to 3 (most of the time; total range: 0 -

60). The MBIS assesses four hypothesized subscales that capture several dimensions of

functional impairment including, family relations, social relations (e.g., peer relationships,

extracurricular participation), school performance (e.g., grades, attendance), and psychological

functioning (e.g., mood, self-esteem). Initial piloting demonstrated that MBIS total scores

correlated with bullying experiences and anxiety and depressive symptoms (Chu et al., 2014).

Items begin with the clause, "When you were bullied in X grade, how often did you…" and

assess the frequency that victimization negatively impacts functioning in the related domain.

Overall impairment is scored by summing responses for a total score.

Anxiety Disorders Interview Schedule (ADIS-IV) – Child and Parent version. The

ADIS-C/P (Silverman & Albano, 1996) is a semi-structured interview consisting of independent

but comparable parent and child interviews that have good interviewer reliability (e.g., $k = .98$,

parent interview; $k = .93$, child interview; Silverman & Nelles, 1988), retest reliability (i.e., r

$= .76$, parent interview; Silverman & Eisen, 1992), and sensitivity to treatment effects (e.g.,

Albano, Knox, & Barlow, 1995; Kendall et al., 1997). The parent and child interviews were

conducted individually allowing the diagnostician to derive parent-reported, child-reported, and

composite (parent and child) diagnoses. Diagnosticians were trained to reliability by shadowing trained interviewers, being shadowed by a trained interviewer, and by coding videotaped interviews and matching gold-standard ratings of diagnoses.

Revised Children's Anxiety and Depression Scale (RCADS) – Child Form. The RCADS-C (Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000) is a 47-item scale whose items correspond closely to DSM-IV anxiety and major depressive disorders. Factor analysis has yielded subscales associated with the diagnoses of interest (e.g., SAD, SOP, PD, GAD, OCD, MDD). The subscales have demonstrated good factorial validity, internal consistency, one-week test-retest reliability, and good convergent and discriminant validity (Chorpita et al., 2000). The RCADS has also demonstrated reasonable convergent validity with other leading anxiety and depression measures (e.g., Revised Children's Manifest Anxiety Scale, Children's Depression Inventory; Chorpita et al., 2000).

Child Behavior Checklist (CBCL) – Parent Form. The CBCL (Achenbach, 2001) is a 118-item parent-report scale assessing behavioral problems and social competencies. Items are rated from *not true* (0) to *very true or often true* (2). The CBCL has broadband internalizing and externalizing factors and eight specific scales (e.g., anxiety-depression). In this study, we analyzed two scales – attention problems and rule-breaking behavior. Normative data are available. The CBCL has high retest reliability, interparent agreement, and validity. It was highly correlated with similar parent measures of child behavior, and scaled scores and clinical cutpoints discriminated between referred and nonreferred children.

Procedures

Study staff attempted to contact 188 eligible participants who had previously sought services as minors at the specialty clinic by phone, email, and/or mail. One hundred and fifty-two

families (80.9%) were successfully reached, resulting in 85 who completed interviews, 36 who declined participation, 24 who were reached but never scheduled, and seven interviews who were scheduled but never completed. Thirty-six families (19.1%) were unable to be reached due to missing or outdated contact information and/or unanswered messages. Reported reasons for declining a phone interview were as follows: 21 were not interested in the study, 10 said they did not have time, three had negative clinic experiences, and two no longer lived with their parents and could not be reached.

All contacted participants completed a phone screen to assess interest. After consenting, the participant completed a phone interview (30-45 minutes) where the OBVQ and MBIS were administered in interview format. Participants received a $20 gift certificate (e.g., Target, Amazon) for completing the interview. Diagnostic and symptom data (ADIS, RCADS, CBCL) were collected at the original time of clinic intake as part of the clinic's standard intake procedures. Thus, diagnostic, symptom, and bullying data all reference the same time period (clinic intake), but bullying data were collected retrospectively. All procedures were approved by the university Institutional Review Board and participant/parent consent and youth assent was obtained for all participants.

<div align="center">**Analyses**</div>

Full Sample (N = 85)

Frequencies for selected items on the OBVQ were computed to explore the prevalence, type, and frequency of bullying experiences present in a treatment seeking population. To test the hypothesis that higher rates of bullying are present among a population of service-users compared to community samples, a benchmarking strategy was used. In addition, a series of correlations were run to examine the relationship between various types of bullying and anxiety/depression at intake. T-tests and ANOVA (covarying sex and age) were also conducted

to test the hypothesis that youth who endorsed bullying experiences prior to intake would exhibit higher levels of anxiety and depression when compared to clinic clients who have not been bullied. Separate ANOVAs were conducted for anxiety and depression symptoms.

Bullying Subsample (*N* = 62)

Psychometric analyses of the MBIS included the 62 participants who completed it after endorsing some form of bullying. Those who did not endorse any bullying experiences did not complete the MBIS. Scale reliability analysis was calculated to evaluate the psychometric properties of the MBIS and determine the overall consistency of the measure. To assess for possible factors, the MBIS was subjected to exploratory factor analysis. Finally, a series of correlations were run to examine the relationship between the MBIS (total and subscales), RCADS (subscales) and CBCL (items for rule-breaking behavior and attention problems) scores. This was followed by running several multiple regression analyses to test the hypothesis that all types of functional impairment will be related to higher levels of anxiety and depression. These procedures were repeated with two symptom scales from the CBCL (rule-breaking behavior and attention problems) as criterion variables in order to test the hypothesis that these subscales would result in weaker associations. MBIS means and standard deviations were also analyzed by gender, age group and bullying history to better understand the effects of bullying.

<div align="center">**Results**</div>

Prior to running any analyses, data screening was conducted to check for skewness, kurtosis, and outliers; all estimates were within appropriate limits. Most items on the MBIS and OBVQ were normally distributed except for a few items that were skewed in the positive direction, typical of low-incidence events. Incomplete data for four cases were handled by using a pairwise deletion procedure across analyses.

Prevalence, Type, and Frequency of Bullying

Table 1 presents participant responses to 10 OBVQ bullying questions. Forty-four (51.7%) indicated that they were bullied in the initial bullying prompt ("How often are you bullied or teased") with 28.2 % endorsing having been bullied once or twice, 8.2% endorsing having been bullied 2 or 3 times a month, and 15.3% endorsing having been bullied once a week or several times a week. After responding to the initial prompt, youth were asked eight additional questions to identify specific forms of bullying (e.g., socially excluded, physically bullied, etc.). An additional 18 participants endorsed being bullied in specific ways even when they responded in the negative to the initial bullying prompt. Therefore, a total of 62 subjects (72.9%) reported that they experienced some form of bullying prior to clinic intake. The remaining 23 subjects (27.1%) did not endorse any experience (overall or specific types) of being bullied during the school year in which they sought mental health services. The types of bullying behavior encountered were reported as follows: called mean names or teased in a hurtful way (55.3%), excluded (49.4%), subject of false rumors (47.1%), threatened or forced to do things (22.4%), called mean names with a sexual meaning (22.4%), bullied about race, ethnicity, religion, culture, or sexual minority status (21.2%), cyberbullied (18.8%), personal belonging stolen or damaged (14.1%), and/or physically bullied (12.9%).

Benchmarking strategy. Participant responses on the OBVQ were compared to national norms from large, representative studies (refer to Table 2). The OBVQ was used for assessing bullying prevalence rates since it has been established as the "gold standard" in bullying research (for example, Collins, McAleevy, & Adamson, 2002; O'Moore, Kirhham, & Smith, 1997). Our findings support the hypothesis that higher rates of bullying may be present among a population of service-users when compared to community samples. Over half of our sample (51.7%)

endorsed being bullied at least once or twice. However, only 23.5% endorsed being bullied on

several occasions (i.e., at least 2 or 3 times a month) prior to clinic intake. Thus, rates of bullying

were equivalent to community samples when using Olweus' definition of bullying, which states

that bullying involves a pattern of behavior repeated over time. The three types of bullying

behavior most frequently reported in the present study were: being made fun of, called names, or

insulted (55.3%), excluded (49.4%) or the subject of false rumors (47.1%). These findings are

consistent with Dyer and Teggart's (2007) study, which found similar rates of bullying and types

of bullying among service-users using criteria that included single incidents of bullying. The

literature on bullying has also suggested that verbal aggression tends to be the most common

form of bullying among youth in community samples (NCES, 2011).

The Relationship Between Bullying and Anxiety/Depression

T-tests were conducted to examine anxiety and depression symptoms across bullied and

non-bullied youth using two definitions of bullying: (1) defining bullying by including any youth

who endorsed being bullied *at least* once or twice in the current school year (Table 3) and (2)

defining bullying using the traditional Olweus definition, which requires youth to endorse being

bullied *at least* two to three times a month in the current school year (Table 4). Regardless of

definition, bullied and non-bullied youth did not differ on most youth, father, and mother

measures of anxiety and depression symptoms (all $p's > .05$). The one exception was that bullied

youth had higher anxiety symptoms by mother report when using the more liberal bullying

definition (bullied *at least* once or twice). Additionally, no significant differences in anxiety or

depression symptoms were found in any ANOVA comparing bullied and non-bullied groups

while covarying sex and age (all $p's > .05$). Correlations were computed to examine relations

between anxiety and depression and dimensional ratings of bullying (frequency) across specific

types. Several types of bullying were found to be significantly related to anxiety, including being the subject of false rumors and/or being threatened or forced to do something. The following types of bullying were found to be significantly related to depression: being excluded, threatened or forced to do something, and/or cyberbullied (See Table 5).

Psychometric Properties of the MBIS

A series of analyses were conducted to evaluate the psychometric properties of the MBIS. Participants completed the MBIS if they endorsed any level of being bullied, either endorsing the initial overall prompt or any of the nine specific types. Thus, analyses are based on a subsample of 62 of the 85 (72.9%) youth.

Item analysis. Total MBIS scores averaged 23.18 (SD = 14.45; range: 0 - 51), and item means ranged from .47 to 1.68 with the full range (0 – 3) of responses endorsed across items (Table 6). On average, participants rated item 4 the highest (M = 1.68), which showed that 66.1% of the bullied youth endorsed feeling really bad about themselves *sometimes* to *most of the time* after being bullied. In contrast, participants rated item 14 the lowest (M = .47), where 88.7% said that they *never* or *rarely* got in trouble in school following a bullying incident. Mean subscale scores indicated that most impairment was related to psychological wellbeing, followed by family, school and social domains, respectively. Overall, the participants' responses on the scale indicated that, in most cases, participants experienced moderate levels of functional impairment subsequent to being bullied.

Reliability analysis. Table 7 summarizes the inter-item correlation between each pair of items. Inter-item correlations ranged from r = 0.00 to 0.78. With the exception of items 3 and 14, the inter-item correlations ranged from low to high. There were also strong correlations among subscales (Family, School, Social, Psychological Wellbeing), which ranged from 0.55 - 0.78 (all

p's < .01). This suggests that the MBIS scales assess related but conceptually unique dimensions

of functional impairment related to bullying.

To provide an estimate of the internal consistency of the MBIS, Cronbach's alpha

(Cronbach, 1951) was computed for each subscale, as well as the entire measure. Cronbach's

alpha for the Family (5 items), School (5 items), Social Relations (5 items) and Psychological

Wellbeing (5 items) subscales were 0.83, 0.75, 0.80, and 0.90, respectively. Alpha's within this

range are generally considered acceptable for scales with a small number of items and when

scale items are only moderately related (Streiner, 2003). Cronbach's alpha for the MBIS Total

Scale was 0.94, indicating a high degree of internal consistency among the items on the scale.

Item-to-total correlations (with item deleted) and Cronbach alpha's with item deleted are

reported for each item in relation to both total scale and subscales in Table 6. Although there

were two items (items 3 and 14) that resulted in low (< 0.33) item-total correlations, the

associated Cronbach alpha values would not be substantially improved if the items were deleted.

Exploratory factor analysis. Initial exploratory analyses included two factor analysis

methods, principal components analysis (PCA) and principal factors analysis (PFA), to

determine the best method for deriving factor scores. These methods were conducted to assess

whether the 20 items measuring functional impairment loaded onto a single construct or whether

they loaded onto multiple factors. As our sample size is less than that recommended for factor

analyses, the results must be viewed as preliminary (usually a minimum of 5 subjects per

variable is recommended; Hair, Black, Babin, & Anderson, 2010). Because PCA is more

commonly used in the literature and both methods resulted in similar solutions, only results from

PCA are described (see Tables 8-10 for all PCA solutions; solutions using PFA are available

from the author).

The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = 0.86 ('great' according to Field, 2009), and Bartlett's test of sphericity x^2 (190) = 788.12, p<.001, indicated that correlations between items were sufficiently large for PCA. Examination of the scree plot and a parallel analysis (O'Connor, 2010) indicated that five components had eigenvalues over Kaiser's criterion of 1 and in combination explained 73% of the variance. In the PCA, factor 1 accounted for 45.7% of the variance (eigenvalue = 9.14), factor 2 accounted for 10.2% (eigenvalue = 2.05), factor 3 accounted for 6.2% (eigenvalue = 1.25), factor 4 accounted for 5.7% (eigenvalue = 1.14) and factor 5 accounted for 5.2% (eigenvalue = 1.03). Thus, factor 1 explained a relatively large amount of the overall variance whereas subsequent factors explained only small amounts of variance (27.3%).

Next, a varimax rotation was selected to evaluate if a rotated solution resulted in more interpretable clusters of factors. The rotation converged after 14 iterations. Similarly, the five components explained 73% of the variance (25.4%, 18.4%, 14.8%, 8.1%, 6.4% for factors 1 – 5, respectively). To ensure that variables were loaded maximally to only one factor, an oblique rotation was also performed, however, it failed to yield a simple structure, with most items loading on two or more factors. Consequently, scale construction was based on the unrotated PCA model.

Findings from the PCA suggest a five-factor solution, however, these factors were not susceptible to a meaningful interpretation (items did not appear to load onto related constructs). In addition, most variables consistently loaded very highly on only one factor. Taken together, a single factor may represent the items of this measure best. Further analysis is needed, but the lowest loading variables on Factor 1 (items 3 and 14) may also require revision or consideration

to be removed in future iterations of the MBIS scale. At present, these items were retained until

these findings could be replicated with larger samples.

   Concurrent and discriminant validity of the MBIS. Correlations between MBIS scores

(total and subscales) and RCADS subscales were computed to examine the relationship between

bullying-related functional impairment and anxiety and depression symptoms at intake (Table

11). Findings indicated that overall level of functional impairment was correlated with all of the

youth-report RCADS subscales (Total Anxiety, MDD, SOP, PD, GAD, OCD) except for SAD.

These correlations ranged from $r = 0.22$ - 0.58, showing that bullying impairment has small to

medium relations with anxiety/depressive symptoms. However, MBIS scales were not highly

correlated with anxiety around separation from home or loved ones ($r's = 0.02$ - 0.32). The

correlation between overall level of functional impairment and MDD proved to be the strongest

($r = 0.58$) while there was a moderate relationship between functional impairment and total

anxiety ($r = 0.37$). The Family and School subscales also demonstrated weak correlations with

several anxiety subscales, which suggested that these types of impairment are not good

predictors of anxious behavior. Meanwhile, MDD correlated with all MBIS scores (total and

subscale). Again, this highlights that bullying impairment may be more connected to feelings of

depression than anxiety in our sample. To further examine the relationship between MBIS and

anxiety and depression, multiple regressions were conducted, regressing MBIS total scores on

youth-rated anxiety and depression, controlling for sex and age. Results replicated correlations,

showing that MBIS scores positively predicted anxiety ($\beta = 0.35$, $t = 2.74$, $p <.01$, $R^2 = 0.17$) and

depression ($\beta = 0.52$, $t = 4.59$, $p <.001$, $R^2 = 0.37$).

   Correlations between MBIS scores and parent reported CBCL scores were also computed

to examine the relationship between bullying-related functional impairment and externalizing

problems at intake (Table 11). Overall, MBIS scores (total and subscales) were non-significantly

negatively correlated with rule-breaking behaviors, ranging from $r = -.14 – -.23$ (all p's $= n.s.$).

Similarly, correlations between MBIS scores (total and subscales) and attention problems were

nonsignificant and small, ranging from $r = -.02 – .14$. Rule-breaking and attention problems were

regressed on MBIS total scores, controlling for age and sex in two separate analyses. In

analyzing attention problems, findings indicated that only gender significantly predicted

attention problems, $\beta = -.27$, $t = -2.05$, $p < .05$), $R^2 = .12$. In contrast, MBIS scores significantly

negatively predicted rule-breaking behavior, after controlling for sex and age ($\beta = -.30$, $t = -$

2.20), $p < .05$. 05, $R^2 = .10$).

Predictors of Bullying-Related Impairment

Table 12 presents mean MBIS total scale and subscale scores by gender, age group and

bullying history. There were no significant differences between males and females on the MBIS

total score or any subscales (all $p > .05$). There were significant differences in total bullying

impairment between older and younger youth, where older youth reported significantly higher

impairment across all four MBIS subscales.

Functional impairment was also compared across different levels of bullying history

("once or twice," "2-3 times a month," "about once a week," "several times a week") derived

from item 1 on the OBVQ. Results indicated that, on average, those who responded that they

were bullied "about once a week" reported the highest MBIS scores (Table 12). To further

examine differences between levels of bullying frequency and related functional impairment,

bullied youth were categorized in two ways: 1) those who endorsed being bullied once or twice

vs. those who endorsed being bullied 2-3 times a month or more; and 2) those who endorsed

being bullied once or twice vs. those who endorsed being bullied 2-3 times a month. Findings

indicated that those who were bullied 2-3 times a month or more (M = 31.85, SD =13.74)

reported significantly higher total MBIS scores than those who were only bullied once or twice,

$t(42)$ = -2.78, $p<.05$. Similarly, a significant difference in total MBIS scores was found between

those who endorsed being bullied once or twice and those who endorsed being bullied 2-3 times

per month, $t(29)$ = -2.08, $p=.05$.

Discussion

The current study examined a sample of treatment seeking youth and assessed their

retrospective experiences of being bullied prior to seeking services at an outpatient specialty

clinic for anxiety and depression. The overall aim was to identify the prevalence, frequency, and

types of bullying among service-users and to establish the psychometric properties of the MBIS,

which is designed to assess functional impairment related to bullying. Results confirm that

bullying is a common problem among children and adolescents who seek mental health services.

Further, findings provide initial psychometric support for the MBIS and reveal its utility in

evaluating bullying-related impairment among anxious and depressed youth.

Perhaps one of the most significant findings from this study was the prevalence of

bullying among service-users. Over half of the sample (51.7%) endorsed being bullied at least

once or twice in the months prior to their clinic intake, with the majority of participants reporting

that it happened "only once or twice." This was measured by examining responses to the first

item on the OBVQ, which broadly asks participants how often they were bullied or teased. An

additional 21.2% of the sample endorsed experiencing a specific form of bullying even when

they denied any experiences using the general prompt. Thus, a total of 72.9% of treatment-

seeking youth endorsed some form of bullying. It is unclear why youth endorsed specific forms

of bullying when they had failed to endorse the general screening question. Some participants

may have perceived the incident(s) as normal social conflict and did not feel vulnerable in terms of physical strength, popularity, socio-economic, or a myriad of other characteristics, relative to the aggressor. Other participants may have been embarrassed to identify themselves as a victim due to the associated stigma or fear that they would be perceived as weak or unpopular. Indeed, most of the items exploring specific forms of bullying did not actually use the term, "bullying." Participants could also have denied bullying experiences based on an unwillingness to revisit unpleasant or repressed childhood memories. Nonetheless, these results serve to remind investigators and clinicians that broad-based assessment questions may not be sufficiently sensitive to identify all those who have experienced bullying.

Large-scale U.S. studies that have measured bullying in similar ways indicate that rates of bullying range from approximately 20-30% in community samples (Gladden et al., 2014; NCES, 2013). This suggests that higher rates of bullying may be present among service-users when compared to community samples. Our prevalence rates are consistent with prior studies focusing on clinic populations (Dyer & Teggart, 2007) where over 60% of youth had reported bullying experiences. Consistent with previous studies on bullying, the most frequent types of bullying behavior reported were being made fun of, called names, or insulted (55.3%), excluded (49.4%) and being the subject of false rumors (47.1%). However, a meaningful number of youth also reported other forms of aggression, including physical threats, being bullied about some form of minority status, experiencing sexual harassment, or having belongings taken or stolen. These findings should be used to inform assessment practices in clinical and school settings and highlight the need to be alert for bullying behaviors that can be discrete yet highly prevalent among youth.

Interestingly, the top three most reported bullying behaviors could also be described as forms of relational aggression. Relational aggression refers to harm within relationships that is caused by covert bullying or manipulative behavior such as rumor spreading, friend withdrawal, and character assassination (Crick & Grotpeter, 1996). These behaviors have received increased attention in recent years, as evidence suggests that relational forms of aggression may be more salient than other forms of bullying (Crick & Grotpeter, 1996; Parker, Rubin, Price, DeRosier, 1995). As a result, it is possible that these types of behavior were more frequently recalled due to their aversive and damaging effects. While this study did not directly assess relational aggression, these responses suggest that relational aggression deserves significant attention in anxious/depressed youth.

In addition to examining the scope of bullying in a clinical sample, we also investigated the relationship between bullying and internalizing symptoms. Our findings support two perspectives. Overall, bullied and non-bullied youth did not differ in anxiety and depression symptoms, except in mother-reported anxiety symptoms when using a more liberal definition of bullying (youth endorse bullying at least once or twice). This finding was contrary to hypotheses, but it may be less surprising than we expected given that the sample was comprised of youth seeking services for anxiety and depression. Thus, the entire sample was characterized by elevated anxiety and depression, contributing to possible ceiling effects. It may also be true that, in a sample of anxious and depressed youth, there may be multiple contributing factors and triggers of mood states (e.g., family stressors, world events, interpersonal conflict). Bullying may only represent one such trigger. However, a different result was found when correlations were assessed across anxiety/depression symptoms and frequency ratings of specific kinds of bullying. Several types of bullying, including being the subject of false rumors, excluded, threatened or

forced to do something and/or cyberbullied, were correlated with significantly higher levels of

anxiety and depression by child report. This suggests that these forms of bullying may be

perceived as the most severe or personally impactful to youth in our sample. Taken together,

bullying may not be the only factor that accounts for symptom severity in a clinical sample, but

there are meaningful relationships between some forms of bullying and anxiety/depression that

deserve attention when youth seek services.

Another primary goal of this study was to examine the factor structure and psychometric

properties of the MBIS. Results from the present investigation provide initial psychometric

support for a bullying measure that assesses a single construct of functional impairment.

Specifically, exploratory factor analysis did not support our hypothesized four-factor model

consisting of functional impairment related to family relations, social relations, school

performance and psychological functioning. A five-factor solution was extracted from all factor

analysis models although these factors did not represent meaningful constructs. In addition,

Factor 1 accounted for the majority of variance, with most items strongly loading onto a single

factor. Based on these findings, our recommendation is to conceptualize MBIS as measuring a

single construct until further investigation with larger samples provides support for multiple

factors. The a priori subscales, representing distinct domains of functional impairment, also

deserve further assessment with larger and more diverse samples.

Reliability analysis demonstrated strong internal consistency and moderate inter-item

correlations for the MBIS. These findings suggest that most items assessed related, but distinct

constructs, and contribute to the overall scale score. Items 3 ("Get annoyed at, or argue with

friends?") and 14 ("Get in trouble at school?") consistently demonstrated low item-to-total

correlations, suggesting these items may not be assessing the same construct as the other items.

However, we recommend retaining these items until further investigation can be conducted with larger and more diverse community and clinical samples. Those items may be poor indicators of bullying-related impairment in a sample of anxious and depressed youth, but may be useful in community or clinical samples where youth exhibit more behavior problems. In addition, the internal consistency of the School domain was lower than other domains, though still within acceptable limits. Together, these findings provide initial support for the reliability and validity of the MBIS. Nevertheless, it will be important to replicate these analyses in future studies.

Convergent and discriminant validity was then evaluated by correlating functional impairment with youth-reported ratings of anxiety and depression (total Anxiety, MDD, SOP, PD, GAD, OCD) and with parent-reported attention and rule-breaking problems. Significant relations were found between total bullying-related impairment and all forms of anxiety and depression, except for separation anxiety disorder. This suggests that being bullied is not associated with anxiety around separation from home or loved ones, as much as it is with other forms of anxiety such as panic, generalized worry, social anxiety, or compulsive behavior. These findings were supported in regression analysis controlling for age and sex. To some extent this is consistent with the literature on bullying which has well documented the relationship between bullying and generalized and social anxiety (Hawker & Boulton, 2000). In addition, separation anxiety tends to be associated with very specific fears that typically result in relatively low levels of functional impairment (Foley et al., 2008). In contrast, symptoms associated with more pervasive disorders, such as GAD, are likely to result in higher baseline levels of functional impairment. Another idea is that because bullying is a social experience, it may be more related to symptoms that can be socially driven. While separation may be triggered in a social context, the underlying fear is typically not connected to social or peer-related concerns. Finally, given

that separation symptoms rarely occur during adolescence (APA, 2000), it is possible that our

sample was not as impacted in this way based on their age ($M = 11.52$) at intake.

We also hypothesized that all domains of functional impairment would be related to

anxiety and depression. This was only somewhat true, as family and school related impairment

surprisingly demonstrated fairly weak relations with anxiety. Findings indicated that youth who

reported that bullying interfered with their family relations and/or school performance were more

likely to exhibit signs of depression. Similarly, the relationship between overall level of

functional impairment and symptoms of depression suggest that being bullied may be more

strongly related to feelings of sadness than anxiety. These findings are consistent with Hawker &

Boulton's (2000) meta-analysis on psychosocial maladjustment related to peer victimization,

which found the largest effect sizes for depression and the smallest for anxiety. Together, these

results suggest that while victims do present as generally and socially anxious and exhibit low

self-esteem, they may be even more strongly characterized as depressed.

Interestingly, the MBIS was also found to be predictive of rule-breaking behavior while

demonstrating negative correlations between these scales. This suggests that bullied youth tend

to exhibit more internalizing than externalizing symptoms (or that youth who exhibited more

externalizing symptoms were less likely to report being bullied). It is important to note that our

results may have been impacted by low incidence of attention and rule-breaking behavior, given

that the majority of our participants primarily met criteria for an internalizing disorder. Further, it

is possible that acting out or rule breaking is another way in which kids cope with bullying,

which is not captured by the MBIS. It is also important to be mindful that parents rated

externalizing symptoms, so there may be discrepancies in the way children and/or adolescents

perceive themselves on these measures. However, consistent with our hypothesis, attention

problems and rule-breaking behaviors were not related to bullying-related impairment,

suggesting that the MBIS demonstrated reasonable divergent validity in distinguishing

internalizing versus externalizing impairment in our anxious/depressed sample.

In comparing MBIS total score and subscale scores, we found that males and females

experienced similar levels of functional impairment related to bullying. While the literature on

bullying suggests that boys and girls tend to experience different forms of bullying – girls are

exposed to more relational forms of bullying while boys tend to face more physical forms (Crick

& Bigbee, 1998) – our findings indicate that their related impairment subsequent to these events

is comparable. More differences in MBIS scores were seen across age groups, as older youth ($\geq$

12 years old) consistently reported higher levels of inference related to bullying. Perhaps, one

explanation for this is that older youth have more accumulated experiences of being bullied since

they have been in school for a longer period of time (Bogart et al., 2013). Older youth may have

also experienced more severe and/or chronic cases of bullying as bullies may exhibit more

persistent and malicious tactics as they age. Another explanation is that older youth are more

sensitive to bullying due to increased social pressure, hormonal changes and other stressors (e.g.,

family, academic, extracurricular activities, etc.) that are typically associated with adolescence.

A final thought is that the MBIS may provide better and more relevant examples for middle and

high school aged youth and did not capture the types of functional impairments experienced by

this younger cohort. Follow-up tests are needed to explore these hypotheses in more detail.

In terms of bullying history (measured by OBVQ item 1), those who responded that they were

bullied "about once a week" reported overall higher scores on the MBIS. It is interesting that,

compared with participants who had endorsed being bullied less frequently, those who had

endorsed being bullied "several times a week" reported lower mean MBIS scores across the

scale. This may seem somewhat counterintuitive, as one would assume that the more one is bullied, the more it would impact his/her day-to-day life. Nevertheless, it is possible that kids who are exposed to bullying on a more frequent basis become accustomed to, or accepting of, the behavior and are therefore less impacted after each incident. Youth exposed to intense, chronic bullying may have also been subsequently removed from environments where they experienced bullying (e.g., withdrawn from school), potentially reducing contact with the stressor.

Inconsistences with, and confusion about, how to define and operationalize bullying have made it difficult to facilitate comparisons across samples and to accurately estimate the prevalence of bullying. While Olweus' definition of bullying continues to be the most widely used among researchers (Collins et al., 2002; O'Moore et al., 1997), it has received criticism by researchers and practitioners who argue that a single act of aggression can constitute as bullying (Arora, 1996; Finkelhor, Turner, & Hamby, 2012) To further examine differences between levels of bullying frequency and related functional impairment, bullied youth were categorized in two ways. Following Olweus' definition of bullying, those who endorsed being bullied at least "2 or 3 times a month" were found to have greater functional impairment than those who endorsed being bullied "only once or twice." To test the utility of using a more lenient definition of bullying, those who endorsed being bullied "only once or twice" were compared to those who endorsed being bullied "2 or 3 times a month." While those who reported being bullied at least two or three times a month scored significantly higher than participants who only experienced isolated bullying incidents, an item analysis of the MBIS showed that single acts could still result in substantial impairment. These findings support the use of Olweus' definition in marking a cut off were youth tend to be more significantly impacted by bullying but also revealed that being bullied only once or twice could still have a meaningful impact on one's day-to-day life.

Limitations and Future Directions

The current investigation has several methodological limitations. The uniqueness of our sample contributed to the novelty of the present study but some findings may not generalize to community samples. In addition, given the complexity of the sample, there were some associated challenges. One of the biggest challenges was the relatively small sample size, particularly for testing the psychometric properties of a novel measure. Although attempts were made to recruit all clinic consumers ($N = 188$), 19.1% were unreachable due to outdated contact information or parent reluctance to provide their adult child's updated information. According to participant and parent reports, the low response rate of parents/young adults consenting to participate in the current study can also be attributed to individuals' unwillingness to participate in the study due to lack of time, negative clinic experiences, and/or general disinterest in the study. To overcome these barriers, additional research is needed with larger, more inclusive samples of youth and families from an increased variety of regions, ethnicities, and backgrounds in order to increase the power of the principal components analysis and the overall generalizability of findings.

There are several other considerations to take into account in terms of sampling. The heterogeneous nature of the sample – including participants who attended different types of schools (e.g., private vs. public, suburban vs. urban) and school levels (i.e., elementary, middle, high school) and two participants who were on home instruction – may have also influenced the type of bullying experiences participants were exposed to. In addition, it is possible that the high level of bullying reported in the study is a reflection of skewed sampling, particularly if those who were inclined to participate in the study did so because the topic was personally meaningful to them. Together, these factors may potentially impact the validity of the study due to the lack of non-random sampling among service-users and fairly inclusive selection criteria.

It is also important to acknowledge discrepancies in time frame that occur within the current study as well as the use of retrospective reports. The current study asked respondents to think back to what it was like in school before they came to the clinic. Therefore, the grade level and potentially the number of months they were able to reflect back on differed depending on the timing of when participants first sought services at the clinic. The length of retrospective recall also varied depending on when the participant was last seen at the clinic (ranging from nine months to eight years). Further, while some researchers have found retrospective recall to be a relatively accurate method of assessment of childhood experiences (Masia et al., 2003), others have questioned the reliability of these reports (Offer et al., 2000). These issues may impact findings in a number of ways including an increased understanding of the complexities of bullying with age, ease of recall, and the validity of data obtained. As with varying definitions of bullying used by researchers, instruments that do not use consistent time points when asking participants to recall events, make it difficult to compare results across studies.

Another measurement concern involves the use of a single method in measuring the presence of bullying. In using a definition-based self-report strategy, participants had to judge whether their personal experiences qualified for meeting the general criteria of being bullied that was provided. It is plausible that subjects may have exaggerated their experiences while others may have minimized them for a variety of reasons including mood and attitude toward completing the survey, social desirability effects, lack of definitional consensus and/or stigma associated with labeling oneself a victim of bullying (Furlong, Sharkey, Felix, Tanigawa, & Green, 2010). Future studies should collect information pertaining to childhood bullying from multiple informants (e.g., parents, teachers, school personnel) and sources (e.g., HIB reports,

report cards, attendance records) in order to provide convergent validity for self-reports of recalled bullying incidents and related impairment.

A strength of this study was the accessibility of parent data. However, as mentioned above, it is important to consider the discrepancy between parent and child reports. For example, our findings indicated that mothers of bullied youth reported higher anxiety scores than mothers of non-bullied youth. However, bullied and non-bullied youth demonstrated no significant differences in their self-reported symptom scores. This shows that mothers of bullied youth rated their children as exhibiting higher levels of anxiety than bullied youth rated themselves. In addition, bullying and related impairment were rated retrospectively while anxiety and depression symptoms were rated months to years before at clinic intake. Discrepancies in these time frames may also contribute to flaws in our study design, as youth may have minimized or repressed their feelings and/or behaviors in response to bullying now that they are removed from the event(s). It is possible that this is why we did not find a significant difference in anxiety/depression symptoms between bullied and non-bullied youth. Future studies are needed to replicate these findings while collecting all measures at a single (current) time point.

Finally, it is important to note that we did not differentiate between victims and bully/victims (those who engage in bullying both as victims and bullies) in this study. In future studies, it would be beneficial to analyze these two groups separately. Research suggests that bully/victims tend to function more poorly than bullies or victims (Hanish & Guerra, 2004; Nansel et al., 2001, 2004; Schwartz, 2000); therefore it would be interesting to investigate how victims and bully/victims may differ in their response to bullying on a scale like the MBIS.

Clinical Implications

This study provides initial insight into the types of functional impairment associated with being bullied. Scores on the MBIS indicate that victims felt that their psychological wellbeing was most negatively impacted by bullying. For example, 66% of victims endorsed feeling really bad about themselves "some of the time" to "most of the time" after they were bullied. Practitioners should be aware of the strong connection between bullying and depression, as illustrated in our study. Evidence of this was further heightened on qualitative sections of the interview, where several participants also endorsed passive thoughts of suicide and/or death after being bullied. This is consistent with bullying literature, which has well documented an increase in suicidal ideation (SI) as a potential consequence of bullying (Klomek et al., 2010). Increased somatic symptoms are also associated with bullying and mood problems, which are not assessed by the MBIS. Taken together, it may be useful to add items to the MBIS that assess for somatic symptomology and risk factors such as SI and self-harm behavior. Piloting new items and replication of the factor structure of the MBIS with a larger representative sample of respondents will be important, as well as feasibility testing in schools and clinical settings.

Assessment of bullying problems and the implementation of related programs requires familiarity with state and district laws and regulations. As described above, discrepancies in the way individuals define bullying can make it difficult to systematically intervene with bullied youth. Such idiosyncrasies across states and school districts may also impact attempts to identify and intervene broadly. For the purpose of this study, we decided to include a broader set of victims beyond those who met Olweus' bullying criteria. Our findings indicated that had we maintained a rigid definition of bullying, we would have overlooked several youth, who may not have interpreted their own experiences as bullying and/or only encountered bullying once or

twice, but were deeply impacted by clear acts of peer victimization. Consistent with recommendations outlined in the Anti-Bullying Task Force (ABTF) 2014 Annual Report, assessing for "substantial disruption" and "interference" may be used to guide practitioners in differentiating bullying from typical student conflict. Practitioners should be aware of such differences and are encouraged to investigate for bullying on a case-by-case basis, rather than adhering to a narrow interpretation of the definition. We encourage practitioners to use the MBIS to aid in this process. In addition, providing opportunities for a more open-ended line of questioning may allow participants to more accurately re-evaluate their experiences and assist practitioners in eliciting clinically useful information that can be tied to intervention.

Knowing that treatment seekers are at an increased risk of being bullied in school can inform intervention efforts. Such efforts should not only be directed at assessment, but also directly addressing the immediate impact of bullying such as building good interpersonal and communication skills to navigate these problems. This might be particularly true for anxious, withdrawn youth, who are at an increased risk of being targeted as a bullying victim. The MBIS can also be used as a form of treatment progress monitoring when bullying as been identified as part of the presenting problem. Long term, these types of interventions will help protect against later episodes of bullying and the associated consequences such as anxiety and depression.

Conclusion

Overall, findings from this study indicate that service-users are likely to have been bullied in the months prior to seeking mental health services. Mental health professionals who treat children with anxiety and/or mood problems should screen for a history of bullying and are encouraged to consider bullying as a contributory factor. In addition, results emphasize the need for mental health professionals to take a more active role in directly addressing these types of

problems in treatment. Despite the need for additional testing with larger sample sizes, the MBIS

showed promise in its ability to detect bullying-related impairment. It is our hope that

information derived from this scale can be used to inform, and guide, treatment practices in order

to help youth better cope with the individualized effects of bullying.

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