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The Multidimensional Bullying Victimization Scale: Development and Validation

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THE MULTIDIMENSIONAL BULLYING VICTIMIZATION SCALE: DEVELOPMENT
AND VALIDATION

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
Requirements for the degree of
Doctor of Philosophy

in

The Department of Psychology

by

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ABSTRACT

One in three middle and high school students are victims of bullying (National Educational Association, 2012). The prevalence of bullying has increased over the past 10 years by approximately 25% (Nation Center of Education Statistics, 2013) and is now considered a public health concern. Published measures of bullying lack breadth and/or psychometric support.

The present study created a psychometrically sound measure assessing bully victimization in adolescents. This measure examines three dimensions of bullying: direct, indirect, and evaluative. Items were generated based on information collected from student focus groups, as well as previously published measures and themes within recently published literature. Items were reviewed for inclusion and clarity. The measure was administered to children/adolescents between the ages of 11 and 18 within the public and private school system.

This study resulted in a psychometrically sound, valid measure of bully victimization for use with adolescents. This measure includes three subscales (indirect, direct, and evaluative) and one composite score. These dimensions are positively correlated with internalizing and externalizing behavior problems.

CHAPTER 1. INTRODUCTION

Over the past decade, the detrimental effects of bullying on youth mental health have been increasingly recognized. The National Crime Prevention Council (2013) reported that approximately 60% of children witness bullying daily, and one in three adolescents experience mental health problems from being bullied (National Educational Association, 2012). Over the past ten years, the prevalence of bullying has increased by approximately 25% (National Center of Education Statistics, 2013), with bullying increasing in late elementary school, peaking during middle school, and declining in high school (Sawyer, Bradshaw, & O'Brennan, 2008). Bullying has been regarded as an important public health concern with many schools implementing policies and interventions for reducing bullying; however, continued work is needed to improve the effectiveness of school-wide interventions, as well as the measurement of bullying within students' lives.

1.1 Conceptualization and Prevalence of Bullying

Bullying has been defined as a specific type of aggressive, interpersonal behavior that involves intent to cause harm, occurs repetitively, and involves an imbalance of power (Olweus 1978, 1999, 2001). Bullying was originally thought to encompass physical acts and/or relational bullying. Traditionally, physical acts, such as pushing, hitting, and kicking, were considered the main aspects of bullying (Ericson, 2001), with approximately 10% of today's youth reporting weekly physical bullying (Jackson & Cohen, 2012). Additionally, relational bullying is comprised of verbal assaults or teasing, spreading rumors, social rejection, and exclusion (Underwood, 2003). Gender differences in prevalence rates of bullying are generally small, with boys typically experiencing more direct or physical bullying and girls experiencing more indirect or relational bullying (Sesar, Simic, & Sesar, 2013). With increased attention on cultural

sensitivity and the vast expansion of computer and Internet use among youth, today's bullying has become more multifaceted.

With the United States becoming increasingly diverse, there has been a heightened sensitivity to cultural, ethnic, or race-related bullying within schools and other social contexts. Cultural bullying can take many forms including micro-aggressions (subtle, stereotypical, or insensitive behaviors) and overt verbal and physical assaults. Oftentimes cultural bullying goes unnoticed because it can often be difficult to detect. Approximately 33% of adolescents who report being bullied experience discriminatory or biased-based bullying, which has been more strongly correlated with compromised health than more general forms of bullying (Russell, Sinclair, Poteat, & Koenig, 2012).

Cyberbullying is increasingly evident today, as virtual and electronic communication has become a major component of adolescent social life (Thomas, Connor, & Scott, 2015), and has received significant media attention. The definitional criteria of traditional bullying can be broadly applied to cyberbullying; however, anonymity and publicity are important additional elements (Thomas, Connor, & Scott, 2015). Cyberbullying has been defined as “an aggressive, intentional act, carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend themselves” (Thomas, Connor, & Scott, 2015, p. 141). The anonymity of the perpetrator may lead to detachment and a sense of immunity, which likely increases its prevalence (McKenna & Bargh, 2000), with approximately 20% of high school students reporting monthly, and 5% reporting weekly cyberbullying (National Center of Education Statistics, 2013). Additionally, fewer consequences often result from bullying peers via technology compared to bullying peers at school, as a student's use of technology is often unsupervised (Beran & Qi, 2007). Cyberbullying is increasingly problematic

and harmful for the victims, as it is not limited to school hours, occurring at any time of day or location.

1.2 Theoretical Understanding of Bullying

1.2.1 Ecological Model

Research often utilizes Bronfenbrenner's (1979) ecological model to conceptualize bullying, as children and adolescents are situated within many systems that have direct and indirect influences on their behavior and development. Within the ecological model, the child's environment is viewed as a multi-layered set of interrelated systems with varying levels of influence on the child (Bronfenbrenner, 1979; see Figure 1). The closest level, referred to as the microsystem, includes those who are physically and emotionally nearest to the child such as immediate family members, peers, and teachers. Next, the mesosystem includes interactions between two or more microsystems. Stronger and more diverse links within the child's microsystems will strengthen the mesosystems influence on the child's development (McGuckin & Minton, 2014).

The exosystem, the next level within the ecological model, includes a wider ecological net consisting of entities such as television, politics, and neighborhoods. The child is not directly involved within the exosystem; however, the exosystem indirectly affects them by governing the settings in which the more immediate systems function (McGuckin & Minton, 2014). The next outward level, the macrosystem, provides the broad patterns of cultural and ideological organization by which the meso- and exosystems operate within the child's life. This often includes any regional, international, and global changes. Finally, the outermost level within the ecological model is the chronosystem, which reveals the temporal component in which the ecosystem is occupied (Bronfenbrenner, 1979). The chronosystem includes and reflects various

changes and periods of development across the individual's lifespan, both individually and within the more distal environment (McGurkin & Minton, 2014).

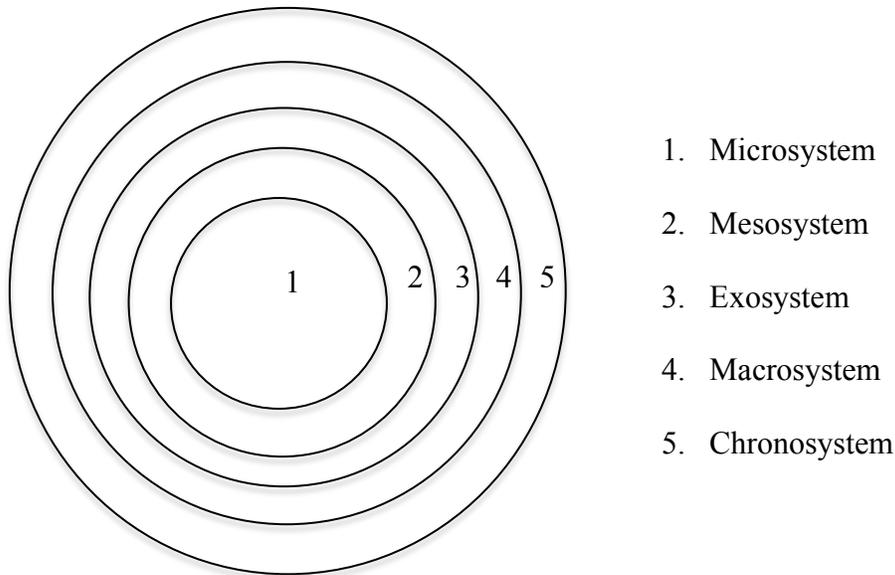


Figure 1. Bronfenbrenner's Ecological Model (Bronfenbrenner, 1979)

1.2.2 Social Ecological Model.

In the area of school bullying, Bronfenbrenner's ecological model (1979) is often referred to as the social-ecological model, with emphasis on understanding how a child's individual characteristics interact with varying environmental contexts and systems in order to influence bully victimization or perpetration (Espelage, 2014). Examination of bully perpetration and victimization requires viewing the behavior from a developmental perspective while paying increased attention to individual differences in origin, course, and correlations of developmental processes. The course of bullying is a result of equifinality, with individuals arriving at similar outcomes from multiple developmental paths (Haltigan & Vaillancourt, T., 2014). The involvement of each level of an individual's social-ecological system plays a unique role contributing to the child's involvement in bullying.

The microsystem includes an individual's characteristics and socio-demographics (e.g., age, gender, race and ethnicity), which are often examined as predictors of bullying. Previous

research has indicated that boys are more likely to bully than girls; however, girls have been found to engage in more relational forms of bullying, while boys engage in a wider variety of bullying acts (Espelage, 2014). A child's health status and psychological functioning also have been found as risk factors of bully victimization. Specifically, overweight, disabled, and depressed youth often experience higher levels of victimization (Espelage, 2014). Additionally, characteristics such as race and ethnicity or immigration status have been associated with increased victimization. However, this often depends on the mesosystem within which it functions.

Within the microsystem, the child's family characteristics have a direct influence on children's bullying. For instance, parental monitoring has been consistently reported as a protective factor against both bully perpetration and victimization (Li, Fiegelman, & Stanton, 2000). The presence of supportive family relationships can act as a buffer to the negative impact of bullying, allowing for opportunities of expression and guidance to promote appropriate coping. Bullies oftentimes have parents who do not provide adequate supervision, are not actively involved in their lives, or who encourage aggressive behavior (Espelage, 2014). Additionally, exposure to family conflict (e.g., sibling aggression) has been found to increase bully perpetration, whereas children from abusive families or with inconsistent parenting are more likely to be victims of bullying (Espelage, Low, & De La Rue, 2012). It is important to note that previous research indicates heredity also plays a role in bullying behaviors, accounting for 61% of variation (Ball, Arseneault, Taylor, Maughan, Caspi, & Moffitt, 2008).

Peers are equally important to an individual's experience of bullying, as perpetration and victimization often take place at school and in the presence of peers. Students who are present during active bullying may perpetuate the perpetration by joining in, passively accepting, or

tolerating the behavior. Similarly, youth whose friends bully others also are more likely to bully (Salmivalli, 2010). A recent study found that during middle school bullies often have higher social status, whereas elementary school bullies tend to be socially rejected (Cook, Williams, Guerra, Kim, & Sadek, 2010).

A child's mesosystem includes the interactions amongst their microsystems, such as those between family, peers, and school. According to self-determination theory (Lam, Law, Chan, Wong & Zhang, 2015), teachers play a vital role in helping to establish an adequate social context for the child's functioning. This theory posits that children become frustrated when their social environment fails to provide opportunities for relatedness (Baumeister & Leary, 1995), autonomy (deCharms, 1968), and competence (White, 1959). These frustrated children are more likely to engage in aggressive behavior. Relatedness is understood as the child's need for being connected to others, with teacher's playing a significant role in the child's social connections within the classroom (Lam et al., 2015). Autonomy is defined as the need for experience of volition (e.g., decision making power, will) and self-endorsement of one's behavior (Lam et al., 2015). Competence can be understood as the need to master one's environment effectively while obtaining valued outcomes within it. Teacher support of relatedness has been found as the most effective means to reduce bullying (Lam et al., 2015). When teachers effectively address conflict and are actively involved in the academic and social lives of their students, students' needs for relatedness are more often satisfied (Lam et al., 2015).

Teachers and other school officials can influence children's relationships with their peers and their perceptions of the school environment. Research indicates that when staff feel comfortable and adequately supported by their school administration in addressing bullying, it leads to less victimization and increases in peer intervention (Espelage, 2014). Poor school

climate such as poor teacher-student relationships (Bacchini, Esposito, & Affuso, 2009), lack of engagement in school activities, and lack of teacher support (Barboza, Schiamberg, Oehmke, Korzeniewski, Post, & Heraux, 2009) contributes to bullying (Swearer & Hymel, 2015).

Additionally, the racial and ethnic composition within the classroom, school, and community influence the presence of race based bully perpetration.

The interaction of family and peer relationships also can have a profound impact on the presence of bullying. Family functioning can influence a child's selection of peers (Espelage, 2014). For example, parental monitoring previously was found to buffer the influence of exposure to community violence on bullying behaviors by decreasing involvement in deviant behavior (Low & Espelage, 2014).

The exosystem is comprised of environmental aspects that are outside of the individual's direct, immediate systems, which can include television, politics, and neighborhoods. Less is known about the influence of this level of the social-ecological system on bullying, as most bullying research focuses on the impact of individual characteristics, family, and schools (Espelage, 2014). Communities in which violence is frequently modeled or condoned often have increased bullying and victimization, although, the directionality of the relationship is unclear (Swearer & Hymel, 2015). However, there is strong reason to hypothesize connections between neighborhood safety and bullying behaviors, given the disruption in adaptive peer relationships and the lack of parental involvement and monitoring that may be associated with features of community violence exposure (Espelage, Bosworth & Simon, 2000). However, being that schools are located within neighborhoods, it can be postulated that unsafe neighborhoods would be associated with increased bullying due to poor parental monitoring and increased negative peer interactions and influences.

Bronfenbrenner (1979) referred to the macrosystem as the cultural blueprint. This blueprint indirectly influences bullying behavior by determining the social structures with which the child's more immediate systems exist. Bullying varies across culture and context, due to the indirect influence of this blueprint. Cultural and political, or religious ideologies often influence federal and state laws, as well as educational laws and school policies (Espelage, 2014). For example, with bullying being thrust into the media's lens within the realm of public health, more attention has been paid to bullying and its consequences, which has significantly impacted state laws and school policies (Espelage, 2014).

The chronosystem is the outermost level of an individual's social-ecology, which includes change and consistency over the course of time within the individual and their environment (Espelage, 2014). More specifically, this can include familial changes such as divorce, death, and remarriage, as well as historical events such as war or economic recession. Changes in the greater social environment can lead to changes in direction or focus of the macrosystem, while changes in the individual's life course can lead to more immediate influences, such as at the micro- and mesosystem level. For example, changes in life events (e.g., divorce) could result in psychological changes within the individual (microsystem) and changes in parental involvement/monitoring (macrosystem), which may negatively result in increased peer aggression (Breivik & Olweus, 2006).

1.3 Motivation towards Aggression and Bullying

Aggression and bullying are maladaptive in that they put others at risk of psychological harm, as well as the perpetrator at risk for significant psychological challenges (Rodkin, Espelage, & Hanish, 2015). However, bullying can also be viewed as adaptive, as it can be successful in changing the behavior of others, used to acquire something valued, and used to

strengthen or maintain group boundaries or social status (Rodkin & Wilson, 2007). In a more recent study, Guerra, Williams, and Sadek (2011) interviewed elementary, middle, and high school students about bullying. Based on the interviews two types of bullies were identified. The first type were individuals who had a high self-esteem, were well integrated into the school, and appeared to desire superior social status. The second type was described as marginalized individuals who have various psychological difficulties.

Aggression and bullying can serve the purpose of getting the bully what he/she wants and dictating other's behavior. Those who are higher in their peer social structure may control more social resources than others. Over time, demonstrations of power and status increase aggressive behavior (Rodkin, Ryan, Jamison, & Wilson, 2013); yet often assist in maintaining the cohesion and structure of the peer group (Faris & Felmlee, 2011). Additionally, within the individual's social structure, some bullies fail to gain the social status of which they seek (Hanish, Sallquist, DiDonato, Fabes, & Martin, 2013). Those individuals who fail to achieve increased social status are often rejected, and frequently become frustrated and seek retaliation within their interpersonal relationships (Troop-Gordon, & Asher, 2005).

1.4 Bullying and Social Context

Bullying behaviors vary in prevalence and stability depending on the child's age, with the behaviors increasing throughout elementary school, peaking in middle school, and decreasing in high school (Sawyer et al., 2008). There are very few studies on bullying that include all grade levels, with substantial differences found in cross-sectional data between elementary and middle/high school (Schafer, Korn, Brodbeck, Wolke, & Schulz, 2005), suggesting that social context may play a moderating role. According to a study on social inequality between children, Krappman (1999) explains the social context within elementary years as being formed primarily

of dyadic relationships, with social interactions characterized by the need to retain symmetry within the relationship. In contrast, during middle and high school, children develop the social ability to formulate and maintain relationships outside of dyadic pairs and begin to form peer clusters (Cairns & Cairns, 1991). The social relationships within middle and high school have a more hierarchical structure than that of elementary school (Schafer et al., 2005), often with shared representations about social prominence within one's peer group.

When peer interactions consist of dyadic relationships that seek symmetry, individuals who are in unfavorably asymmetric dyads escape in an effort to find more favorable, relational symmetry (Krappman, 1999). Due to this social movement, social hierarchies are not formed and thus social status within this context is either temporary or not an issue. Thus, this social movement may also explain the high prevalence but low stability of bully victimization in elementary school (Krappman, 1999; Schafer et al., 2005).

With the presence of hierarchical peer clusters in middle and high school that differentiate higher- and lower-status students, social movement is increasingly difficult (Schafer et al., 2005). Thus, the bully often targets fewer victims, which adds to the understanding of the lower prevalence, yet high stability of victims during adolescence (Cairns & Cairns, 1991; Hanish & Guerra, 2000, 2004).

1.5 The Impact of Bullying

1.5.1 Internalizing Problems

Compared to non-bullies, children who bully are nearly three times more likely to have a mental health diagnosis (Benedict, Vivier, & Gjelsvick, 2015). Research consistently demonstrates that engaging in bullying puts a child at risk for increased feelings of loneliness, poor psychosocial functioning, and poorer relationships with classmates (Nansel, Overpeck,

Pilla, Ruan, Simons-Morton, & Scheidt, 2001). Generally, internalizing problems occur within children who bully more frequently than non-involved children; however, they are most strongly associated with being the victim of bullying, or being a bully/victim (Kelly et al., 2015).

The literature consistently demonstrates that being bullied is strongly associated with internalizing symptoms such as depression and anxiety (Benedict et al., 2015; Hunt, Peters, Rapee, 2012; Nansel et al., 2001; Paul, Smith, & Blumberg, 2013; Waasdorp & Bradshaw, 2015). The victims of bullying often report feeling lonely, pessimistic about social relationships (Jackson & Cohen, 2012; Nansel et al., 2001), and having a low self-esteem (Nansel et al., 2001; Rigby & Slee, 1993; Waasdorp & Bradshaw, 2015). Victimization is also associated with increased social stress (Waasdorp & Bradshaw, 2015), poor psychosocial functioning (Hunt et al., 2012; Nansel et al., 2001), higher levels of insecurity (Nansel et al., 2001), and psychosomatic complaints (Benedict et al., 2015). In addition, Hunt, Peters, and Rapee (2012) found that victimization was strongly correlated with each scale of the Screen for Child Anxiety Related Disorders (SCARED) including somatic/panic, separation, generalized, social phobia, and school phobia scales.

Symptoms of depression also are associated with being the target of bullying, including negative, ruminative thoughts (Nansel et al., 2001), often about physical or social threats and personal failure (Hunt et al., 2012), as well as suicidal ideation and behavior (Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Prinstein, Boergers, Spirito, Little, & Grapentine, 2000). Additionally, victims of bullying have reported more unhappiness (Nansel et al., 2001) and less overall life satisfaction and hope compared to their non-victimized peers (Cornell & Limber, 2015). Adolescents who experience multiple forms of bullying (e.g., relational and cyber

bullying) are at increased risk for adjustment problems, compared to those with only one type of bullying experience (Gradinger, Strohmeier, & Spiel, 2009).

Those who bully and who are bullied (bully/victims) are found consistently to be at greater risk for mental health problems than bullies or victims alone (Benedict et al., 2015). Particularly in regards to internalizing symptoms, bully/victims report higher levels of mental health challenges (Menesini, Modena, & Tani, 2009), specifically anxiety, depression, and thought problems (Sesar et al., 2013), than bullies or victims. Additionally, bully/victims demonstrate the poorest psychosocial functioning of all groups, with increased peer rejection (Hymel & Swearer, 2015), poorer relationships with classmates, and increased loneliness (Nansel et al., 2001).

1.5.2 Externalizing Problems

Bullying has been consistently associated with increased externalizing problems in youth. Bullies are at increased risk for substance abuse (Benedict et al., 2015), particularly smoking and alcohol use (Nansel et al., 2001). They often demonstrate higher levels of conduct problems than victims and non-involved peers (Nansel et al., 2001), including involvement in crime (Benedict et al., 2015; Renshaw & Cook, 2016b) and fighting (Nansel et al., 2001).

Although research often focuses on the externalizing problems exhibited by bullies, being a victim is also associated with increased externalizing problems compared to non-involved peers (Kelly et al., 2015). Similarly as with internalizing problems, victims who experience multiple forms of bullying have significantly higher externalizing problems and retaliatory behavior than those who experience fewer forms of bullying (Bradshaw, Waasdorp, & Johnson, 2015). Experiencing all research-identified forms of bullying (i.e., relational, cyber, physical, and race-based) is related to increased hostile thoughts (Davidson & Demaray, 2007; Hunt et al.,

2012), fighting (Nansel et al., 2001), aggression, and anger (Davidson & Demaray, 2007).

Additionally, being a victim of bullying that is discriminatory in nature has a greater association with substance use and truancy than non-discriminatory bullying (Rosenthal et al., 2015).

Research indicates that bullies often display higher levels of externalizing behavior compared to victims (Farmer et al., 2015). However, youth who are bully/victims experience significantly greater levels of externalizing behavior than bullies and victims alone (Benedict et al., 2015; Menesini, Modena, & Tani, 2009). Bully/victims often exhibit higher levels of anger, aggression, and delinquent behavior (e.g., rule-breaking and substance use; Menesini et al., 2009) than bullies, victims, or non-involved peers (Sesar et al., 2013). They are also at higher risk for fighting and smoking than bullies or victims (Nansel et al., 2001). Researchers hypothesize that bully/victims experience difficulty regulating emotions and thus retaliate when victimized (Beran & Qi, 2007; Katzer, Fetschenhauer, & Belschak, 2009). Additionally, bully/victims tend to be hyperactive and impulsive (Hymel & Swearer, 2015; Menesini et al., 2009), display social adjustment problems (Menesini et al., 2009), and are most socially disliked (Roberson & Renshaw, 2016). Thus, externalizing problems are important to consider when evaluating the effects of bullying and are often overlooked by current research.

1.5.3 Academic Concerns

Children who bully are more likely to experience academic problems relative to non-involved peers (Benedict et al., 2015) and often demonstrate a greater dislike of school (Nansel et al., 2001). Victimized students often experience increased fear and stress while at school, affecting their ability to learn. This may result in school avoidance, increased absenteeism (Beran & Li, 2007), and difficulty concentrating in class (Buhs & Ladd, 2001). The behavior frequently leads to poorer academic performance (Beran & Li, 2007; Katzer et al., 2009) and

lower academic achievement (Paul et al., 2013). Additionally, bully/victims also experience poor academic achievement (Nansel et al., 2001), with increased academic difficulties (Hymel & Swearer, 2015) and the poorest school performance of all groups (Roberson & Renshaw, 2016).

1.6 Current Measures of Bullying

Bullying has been measured several different ways from peer ratings to definition-based self-report questionnaires and self-report behavior-based questionnaires. Below is a review of current measures of bullying in adolescents.

1.6.1 Peer Nominations

Peer nomination as a measure of bullying involves asking students to rate or nominate classmates who are characterized by specific behavioral descriptions (e.g., bullies others a lot, often made fun of). The nominations are summed and compared to a researcher-derived cutoff point for that descriptor. For example, students one standard deviation above the mean are defined as victims (or bullies) and below as non-victims (or non-bullies; Solberg & Olweus, 2003). Using peer nominations can significantly reduce the risk for individual social desirability response bias, as students are not completing the items about themselves (Paul et al., 2013). However, the use of peer nominations is problematic due to the arbitrary nature of cutoff scores. Additionally, several factors could affect the prevalence rates of bullying using peer nomination, including the number of students within the classroom, whether nomination choices are a fixed number or free, and how nominations are standardized (Solberg & Olweus, 2003). Thus, use of peer nomination to determine bullying behavior is not recommended (Paul et al., 2013; Solberg & Olweus, 2003).

1.6.2 Peer Relations Questionnaire

The Peer Relations Questionnaire (PRQ; Rigby & Slee, 1993) is a 20 item self-report measure assessing styles of interpersonal relations in adolescents and consists of three subscales: bully, victim, and pro-social scale. Six items assess bullying (e.g., “I enjoy upsetting wimps”), six items assess victimization (e.g., “I get picked on by others”), and four items assess prosocial behavior (e.g., “I enjoy helping others”). Items are rated on a four-point scale, ranging from “never” to “often”. Although the measure assesses both being bullied and being a bully, as well as several positive interpersonal behaviors, the instrument lacks comprehensiveness (i.e., does not include cyberbullying or cultural bullying), and demonstrates only adequate psychometrics, with internal consistencies just exceeding .7 for each scale (Rigby & Slee, 1993).

1.6.3 Olweus Bully/Victim Questionnaire

The Olweus Bully/Victim Questionnaire (OBVQ; Olweus, 1996) is a 40-item self-report measure for students in grades three to twelve. The measure defines bullying and then asks respondents to rate items in terms of frequency (Olweus, 1996). The measure assesses physical, verbal, indirect, racial, or sexual forms of bullying or harassment (Olweus, 1996). It also includes attitudes about bullying, where bullying takes place and methods of recourse. Items are rated on a five-point scale, ranging from “did not occur” to “occurred several times in one week.” Responses are used to classify the child into non-bully/non-victim, victim, bully, and bully/victim groups. However, group classification is determined based on arbitrarily determined cut-points. According to Hunt, Peter, & Rapee (2012), there is little to no evidence to support the use of these cut points as determinants of group classification.

The OBVQ has good psychometric properties, demonstrating discriminant, concurrent, and construct validity (Solberg & Olweus, 2003), as well as high internal consistency

reliabilities of .80 or higher (Olweus, 2007). The OBVQ assesses varying types of bullying; however, the measure does not include cyberbullying (Hunt et al., 2012). Additionally, the definition-based portion of this measure is problematic, as the understanding of the term ‘bullying’ varies across cultures (Hunt et al., 2012) and countries (Boulton, Bucci, & Hawker, 1999; Schafer, Werner, & Crick, 2002). Thus, bullying may mean different things to different people and the initially presented definition of bullying within this measure may alter student responses.

1.6.4 Personal Experiences Checklist

The Personal Experiences Checklist (PECK; Hunt et al., 2012) is a 32-item self-report measure of bullying occurring in the past month for children 8 years of age and older. The PECK includes items pertaining to relational, physical, cultural, and technology-based bullying. Items are rated on a five-point scale, ranging from “never” to “every day.” This measure was developed with two samples of Australian schoolchildren from ages 8 to 16, with 83.5% of participants identifying as Anglo-Saxon.

Although the PECK demonstrates adequate internal consistency and test-retest reliability ($r = .61-.86$; Hunt et al., 2012), the utility of the measure with students in the United States is unknown. Additionally, the standardization and validation of the PECK is limited to primarily Caucasian students. Further, several cultural bullying items failed to meet recommended inclusion criteria, as they had low item-total correlations, yet were retained due to the importance of assessing cultural bullying (Hunt et al., 2012). Although the PECK provides comprehensive coverage of multiple factors of bullying, many of the cyberbullying items are outdated and do not reflect current social media usage.

1.7 Rationale

The negative effects of bullying are well established in school aged children and adolescents. Although various measures of bullying have been developed they have several limitations including subjective cut points, which may arbitrarily classifying students as bullies or victims, or lack comprehensiveness. The PECK, the most comprehensive and contemporary measure of bullying, was not standardized with a heterogeneous sample within the United States, which could lead to inaccurate results and interpretations if utilized within this country. Additionally, the PECK's technological terminology is outdated and thus its utility with today's technology usage is unknown (Hunt et al., 2012).

With bullying behavior significantly impacted by one's social context, specifically with the differences in victimization across elementary and middle/high school years, the Multidimensional Bullying Victimization Scale (MBVS) focused on individuals aged 11 through 18.

1.8 The Present Study and Hypotheses

The purpose of the current study is to develop a psychometrically sound, multidimensional measure of bullying for use with diverse samples of youth. This study seeks to develop an updated and comprehensive measure for use with samples of American adolescents. This study is a continuation of a previously initiated study of bullying behavior. Based on the literature cited above, this study proposes the following hypotheses:

(1) Based upon item retention, items will ultimately load onto four major dimensions:

Relational, Physical, Cultural, and Cyberbullying.

- (2) The scores on each factor will be positively associated with internalizing behavior as assessed by the Youth Internalizing Problems Screener, and with externalizing behavior as assessed by the Youth Externalizing Problems Screener.
- (3) The scores on each factor and the composite score will be negatively associated with academic performance.
- (4) The factor scores of the measure will be positively associated with factors scores on the Personal Experiences Checklist (PECK).

CHAPTER 2. METHOD

2.1 Phase I: Item Generation

2.1.1 Method

Procedure. Phase I was conducted during the prior initiation of which this study is a continuation. Thus, details in regards to focus group participants and specific item generation information are unavailable. The purpose of Phase I was to create an item pool that assesses four dimensions of bully victimization: relational, physical, cultural, and cyberbullying. Institutional Review Board approval was obtained at Louisiana State University. Preliminary items were generated using common themes of bully victimization consistent across existing literature, as well as revised items from existing bullying measures. Informal interviews were conducted with youth (approximately ages 11 to 18) in order to produce additional items. Items were reviewed, revised, eliminated, and added by an expert in child development and clinical psychology. The revisions resulted in a pool of 74 items.

The MBVS pilot measure is comprised of 15 items assessing physical bullying, 17 items assessing relational, 23 assessing cyberbullying, and 19 assessing race-based bullying (See Appendix A). Where as the PECK has 9 items assessing physical bullying, 11 items assessing relational-verbal bullying, 8 items assessing cyberbullying, and 4 items assessing bullying based on culture.

2.2 Phase II: Item Selection/Reduction

2.2.1 Method

Participants. Participants included 600 youth, ages 11-18 ($M = 15.16$, $SD = 1.72$), spanning grades 5 through 12, from Louisiana. Participants were also recruited from Michigan; however, due to a large disparity in sample sizes all Michigan participants were excluded from

the analyses. The overall sample was predominantly Caucasian (80% Caucasian, 5.3% Black/African American, 3.8% Asian/Pacific Islander, 2.8% Biracial/Multiracial, 2.0% Hispanic/Latino, 0.7% American Indian/Alaskan Native, 0.7% Other, 0.8% Decline to answer), with 3.8% missing this information. Females comprised of 54.5% of the sample. Youth were recruited from youth groups, after-school care programs, schools (private and public), health clinics, and via flyers posted around the community. The sample is predominantly comprised of students from private schools, due to the refusal of various public schools to participate (84.2% private religious, 14.1% public, 0.7% private non-religious, 0.5% charter, 0.5% other).

Demographic information is presented in Table 1.

Table 1. Phase II Demographic Information

Demographic Variables	Frequency	Percentages
<i>N</i>	600	
Age	<i>M</i> = 15.16 (1.94)	
Gender		
Female	327	54.5
Male	273	45.5
Race		
Caucasian	480	80.0
Black/Af. Amer.	32	5.3
Asian/Pac. Islander	23	3.8
Biracial/Multiracial	17	2.8
Hispanic/Latino	12	2.0
Amer. Indian/Alaskan Native	4	0.7
Other	4	0.4
Decline to answer	5	0.8
Missing	23	3.8
School Type		
Private Religious	496	82.7
Public	83	13.8
Private Non-Religious	4	0.7
Charter	3	0.5
Other	3	0.5
Missing	11	1.8
Grade Level		
5 th Grade	3	0.5
6 th Grade	53	8.8
7 th Grade	12	2.0

Table 1 Continued

Demographic Variables	Frequency	Percentages
8 th Grade	18	3.0
9 th Grade	97	16.2
10 th Grade	115	19.2
11 th Grade	186	31.0
12 th Grade	90	15.0
Missing	142	23.7
Academic Performance		
Mostly As	170	28.3
Mostly As and Bs	215	35.8
Mostly Bs	32	5.3
Mostly Bs and Cs	35	5.8
Mostly Cs	3	0.5
Mostly Cs and Ds	3	0.5
Missing	142	23.7
Parental Marital Status		
Married	442	73.7
Divorced	91	15.2
Single	19	3.2
Living with partner	5	0.8
Widowed	11	1.8
Other	8	1.3
Missing	24	4.0

Measures.

Demographic Questionnaire. Participants completed a short demographic questionnaire in order to obtain descriptive data for the sample. The questionnaire included age, grade, gender, race, school type, parent's marital status, and academic performance (see Appendix E).

Multidimensional Bullying Victimization Scale (MBVS; pilot version). Participants completed the pilot version of the MBVS, which was generated in Phase I consisting of 74 items (see Appendix F). Items were rated on a 4-point scale, ranging from 0 = "never" to 3 = "very often," indicating how often each item is true of the individual.

Procedure. Following program/school/clinic approval (if applicable), parental consent and child assent were obtained. For youth recruited through youth groups or after-school programs, leaders at these institutions were contacted for approval. Parents were informed about

the study either in person as they dropped off their children or through letters/consent forms sent home. Contact information for the researchers was included on all forms. If parental consent was obtained, child assent was sought during youth group or after-school care programs. Assenting children completed the questionnaires under the supervision of the researcher. For youth recruited through schools, administrators and teachers were contacted for approval. Parental consent and child assent were sought through letters/consent forms sent home. The questionnaires were administered either at school under the supervision of the researcher, or at home under the supervision of the participant's parent. For youth recruited through flyers posted in the community, parental consent and child assent was sought through letters/consent forms sent home. The questionnaires were administered under the supervision of the parent.

2.2.2 Results

Data Screening. Prior to conducting data analysis, data were screened for normality, homoscedasticity, and linearity. Multiple participants were indicated as multivariate outliers, as their Mahalanobis distance scores were significant ($p < 0.01$). However, these participants were retained for analyses, as it is not unexpected that some adolescents experience bullying at an increasingly high level. Screening for skew and kurtosis showed multiple items that were significantly skewed and kurtotic; however, corrections for skew and kurtosis were not conducted, as bullying behavior is not expected to be normally distributed.

Initial Item Selection. Initial item analyses included examination of item frequencies, item means, and inter-item correlations. Items that were infrequently endorsed (less than 15% of the time) or that had extreme item means (i.e., do not approach the median value for responses) were considered for initial elimination (DeVellis, 2003). According to these criteria, 39 items were eliminated due to low frequency. No additional items were eliminated due to low or high

means. In addition, items with high inter-item correlations (.75 or higher) were examined to determine if one item in the pair could be eliminated. One item met this criterion and was eliminated. Higher inter-item correlations suggest that the two items may be measuring the same thing and that one item is unnecessary. A list of items eliminated can be found in Appendix G

After initial item elimination was concluded, principle axis factoring (PAF) exploratory factor analyses were conducted for the purpose of determining if underlying dimensions were evident from the data. Analyses were conducted using a direct oblimin oblique rotation, since it is assumed that the factors would be correlated. Comrey and Lee (1992) suggest multiple criteria for determining factor solutions, including factor loadings of .40 or greater, eigenvalues of 1.0 or higher, and simple structure (i.e., items load strongly on one factor only). Additionally, results from a Monte Carlo PCA for parallel analysis suggested use of an eigenvalue of 1.40 as the factor determination cutoff.

The unbound factor analysis suggested a 7-factor solution, as it accounted for the most variance. However, additional solutions were forced to evaluate one, two, three, four, five, and six factor solutions. The one-factor solution was forced to examine whether the items could be best understood as a single variable of bullying. The three-factor solution was examined, as the scree plot of the original unbound factor analysis and the corresponding eigenvalues were suggestive of this solution. Additionally, a four-factor solution was examined to explore the hypothesized concept of bullying as a four dimensional structure. The two-, five-, and six-factor solutions were run to ensure a comprehensive examination of all solutions leading up to the unbound 7-factor solution suggested.

The 7-factor solution was not chosen, as the eigenvalues did not uphold that suggested by the parallel analysis. Additionally, the pattern of factor loadings was not ideal, with several

factors having only few items, and three factors carrying the majority of the item factor loadings. The additional factor solutions (one, two, four, five, and six-factors) were not chosen due to poor theoretical coherence, eigenvalues below 1.40, and poor factor loadings. The three-factor solution resulted in the most interpretable factor structure, considering its scree plot results, eigenvalues, variance accounted for, and interpretability. Additionally, results from the parallel analysis suggested a three-factor solution.

Further item analysis was conducted for the purpose of item-reduction, following the preliminary factor analysis. Using the previously stated criteria, six items were eliminated due to poor factor loading (less than .40) and two were eliminated due to loading on more than one factor (see Appendix F for deleted items list). Items that resulted in increased reliability (i.e., Cronbach's alpha) when the item is deleted, or items with low total-item correlations (below .20; Floyd & Widaman, 1995) were considered for elimination; however, no items met these criteria and thus no additional items were eliminated.

A factor analysis was conducted using the remaining 26 items (see Table 2). Factor correlations are reported in Table 3. Factor 1, labeled *Direct Bullying*, consists of 11 items that represent forms of bullying in a personal, direct, and face-to-face manner. Factor 2, labeled *Indirect Bullying*, consists of 8 items that represent experiencing bullying indirectly, through other people or other mediums (i.e., Internet). Factor 3, labeled *Evaluative Bullying*, consists of 7 items that assesses experiencing bullying that is judgmental or evaluating a persons traits or attributes. The final 26-item MBVS was assessed for readability and resulted in a Flesch-Kincaid reading grade level of 2.1, a Gunning Fog score of 4.1, a Coleman-Liau Index of 8.7, and a SMOG Index of 3.9. Thus the average grade level index was 3.9. The 26-item version of the MBVS is presented in Appendix H.

Table 2. Phase II Factors and Factor Loadings

Item Description	Factor ^a			
	1	2	3	
Call me mean names	.48	(.13)	(.20)	
Push or shove me	.84	(-.09)	(-.12)	
Curse at me	.41	(.28)	(.07)	
Make fun of me	.50	(.36)	(.07)	
Tease me	.42	(.18)	(.20)	
Punch or hit me	.75	(-.01)	(-.02)	
Bump into me on purpose	.74	(-.02)	(-.03)	
Call me stupid	.51	(.29)	(.10)	
Yell at me	.51	(.15)	(.19)	
Throw objects at me	.53	(-.10)	(.22)	
Take, hide, or knock my things down	.48	(-.11)	(.29)	
Post negative comments on my pictures, comments, or statuses (Facebook, Twitter, Instagram)	(.30)	.49	(-.04)	
Spread rumors about me in text messages	(-.01)	.70	(.10)	
Ignore my texts	(.05)	.69	(-.07)	
Ignore me	(.21)	.50	(.17)	
Spread rumors about me	(.19)	.51	(.18)	
Post embarrassing videos of me (SnapChat, YouTube, Facebook)	(-.16)	.55	(.06)	
Screenshot my SnapChats that I send and post them on the internet	(-.08)	.53	(.02)	
Leave me out or exclude me	(.15)	.45	(.18)	
Make fun of my appearance	(.11)	(.03)	.68	
Make fun of my size	(.09)	(-.05)	.63	
Make negative comments about my clothing	(.07)	(.17)	.48	
Make fun of my physical features (my eyes, my nose)	(.04)	(.21)	.48	
Make fun of my weight	(-.05)	(-.03)	.67	
Make fun of me for being smart	(.03)	(-.02)	.50	
Make fun of me for my grades	(-.09)	(.09)	.62	
	Eigenvalue	9.56	2.32	1.44
	% Variance	36.78	8.93	5.52

Table 3. Phase II Factor Correlations

Factor	1	2	3
1	1		
2	.34	1	
3	.53	.57	1

Scale and composite means and standard deviations are reported in Table 4. The subscale and the composite scale scores were not normally distributed, as they demonstrated positive

skew and kurtosis ($g_1, g_2 > |1|$; Table 4). Moreover, bivariate correlations conducted among MBVS subscale and composite scale scores indicated moderate to strong positive associations between the subscale and composite scale scores ($.59 < \text{Pearson } r < .90$; see Table 5).

Table 4. Descriptive Statistics of the Multidimensional Bullying Victimization Scale

Scale	Items	Min., Max.	<i>M</i>	<i>SD</i>	g_1	g_2	α
Direct Bullying	11	0, 33	4.19	4.95	2.07	5.80	.89
Indirect Bullying	8	0, 22	2.95	3.74	2.09	5.38	.85
Evaluative Bullying	7	0, 18	1.81	2.89	2.78	9.52	.82
MBVS Total	26	0, 66	8.83	9.93	2.18	6.22	.93

Note. Min., Max. = Minimum and maximum observed scale scores. g_1 = Skewness. g_2 = Kurtosis.

Table 5. Intercorrelations Among the MBVS Subscales and Composite

Scale	Correlation (<i>r</i>)			
	Direct	Indirect	Evaluative	MBVS Composite
Direct	1			
Indirect	.59	1		
Evaluative	.64	.61	1	
MBVS Composite	.90	.85	.83	1

Note. All correlations significant at the $p < .01$ level.

Reliability Analyses. Reliability estimates were obtained by conducting internal consistency analyses using Cronbach's alpha coefficient. All three factors demonstrated good internal consistency estimates ($\alpha = .89$ for *Direct Bullying*, $\alpha = .85$ for *Indirect Bullying*, $\alpha = .82$ for *Evaluative Bullying*; Table 4). The composite, which combines each of the three factors, also demonstrated strong internal consistency ($\alpha = .93$).

2.3 Phase III: Reliability and Initial Validation

2.3.1 Method

Participants. The sample consists of 652 additional youth, ages 11-18 ($M = 15.50$, $SD = 1.41$), spanning grades 6 through 12, from Louisiana and Michigan. The overall sample was predominantly Caucasian (83.3% Caucasian, 6.0% Black/African American, 1.1% Asian/Pacific

Islander, 2.9% Biracial/Multiracial, 1.5% Hispanic/Latino, 1.4% American Indian/Alaskan Native, 0.3% Other, 0.8% Decline to answer), with 2.8% of the sample missing this information. Females comprised of 50.9% of the sample. Participants were recruited in the same fashion and those in Phase II. The sample is predominantly comprised of students from private schools (95.1% private religious, 4.3% public, 0.3% private non-religious, 0.2% charter, 0.2% other). Demographic information is presented in Table 6.

Table 6. Phase III Demographic Information

Demographic Variables	Frequency	Percentages
<i>N</i>	652	
Age	<i>M</i> = 15.50 (1.41)	
Gender		
Female	332	50.9
Male	320	49.1
Race		
Caucasian	543	83.3
Black/Af. Amer.	39	6.0
Asian/Pac. Islander	9	1.1
Biracial/Muliracial	19	2.9
Hispanic/Latino	10	1.5
Amer. Indian/Alaskan Native	9	1.4
Other	2	0.3
Decline to answer	5	0.8
Missing	18	2.8
School Type		
Private Religious	620	95.1
Public	28	4.3
Private Non-Religious	2	0.3
Charter	1	0.2
Other	1	0.2
Missing	0	0
Grade Level		
5 th Grade	0	0
6 th Grade	20	3.2
7 th Grade	3	0.5
8 th Grade	21	3.4
9 th Grade	115	18.5
10 th Grade	118	18.9
11 th Grade	236	37.9
12 th Grade	95	15.2
Missing	15	2.4

Table 6 Continued

Demographic Variables	Frequency	Percentages
Academic Performance		
Mostly As	256	41.1
Mostly As and Bs	252	40.4
Mostly Bs	32	5.1
Mostly Bs and Cs	52	8.3
Mostly Cs	14	2.2
Mostly Cs and Ds	2	0.3
Missing	15	2.4
Parental Marital Status		
Married	478	76.7
Divorced	96	15.4
Single	15	2.4
Living with partner	2	0.3
Widowed	8	1.3
Other	8	1.3
Missing	16	2.6

Measures.

Personal Experiences Checklist (PECK). The PECK is a 32-item self-report instrument used to measure youths' personal experiences being bullied (Hunt et al., 2012; see Appendix K). The measure yields four factors: Physical, relational-verbal, cyberbullying, and bullying based on culture. Items are rated on a five-point scale, ranging from "never" to "every day" and the total score range is 0 to 96. The score ranges of the individual subscales were as followed: physical, (0-27), relational-verbal (0-33), cyberbullying (0-24), and bullying based on culture (0-12). The PECK demonstrates adequate internal consistency and adequate test-retest reliability ($r = .61-.86$; Hunt et al., 2012).

Youth Internalizing Problems Screener (YIPS). The YIPS is a 10-item self-report behavior rating instrument used to screen youth for internalizing problems (Renshaw & Cook, 2016a; see Appendix I), including items related to anxiety and depression. This measure yields two classifications of youth: typical and at-risk ($>1.5 SD$ above mean). Items are rated on a four-

point scale, ranging from “almost never” to “almost always” and the total score range is 10 to 40. The YIPS demonstrates good internal consistency ($\alpha = .88$) and concurrent validity (Renshaw & Cook, 2016a).

Youth Externalizing Problems Screener (YEPS). The YEPS is a 10-item self-report behavior rating instrument used to screen youth for externalizing problems (Renshaw & Cook, 2016b; see Appendix J), including items related to hyperactivity/impulsivity and conduct problems. This measure yields two classifications of youth: typical and at-risk ($>1.5 SD$ above mean). Items are rated on a four-point scale, ranging from “almost never” to “almost always” and the total score range is 10 to 40. The YEPS demonstrates adequate internal consistency ($\alpha = .77$) and concurrent validity (Renshaw & Cook, 2016b).

Procedure. After parental consent and child assent were obtained as described in Phase II, the MBVS-pilot, PECK, YIPS, and YEPS were administered in a packet along with the demographic questionnaire. All procedures remained identical to those described in Phase II.

2.3.2 Results

Preliminary Analyses. To explore the relationship of race/ethnicity on the MBVS factors, independent samples *t*-tests were examined to determine if the overall subscales and the composite scale differed as a function of race using the sample of 600 participants collected in Phase II. Due to significant disparities in samples sizes amongst the various races and ethnicities, the participants were sorted into two groups, Caucasian and non-Caucasian. The Total ($t(547) = -.61, p = .55$; ns), Direct Bullying ($t(554) = .20, p = .84$; ns), Indirect Bullying ($t(567) = -1.47, p = .14$; ns), and Evaluative Bullying ($t(565) = .55, p = .58$; ns) scale scores did not differ as a function of ethnicity.

Additionally, demographic differences were examined between Caucasian and non-Caucasian participants. Due to significant disparities in samples sizes amongst the type of school a participant attended, the participants were sorted into two groups, private school and non-private school. Kruskal-Wallis tests, as the data examined violated the assumptions of homogeneity of variance, were conducted to determine if academic performance, parental marital status, or type of school differed as a function of race. Grade level ($H(1) = .68, p = .41$; ns) and parental marital status ($H(1) = .10, p = .76$; ns) did not significantly differ as a function of race. However, the type of school was significantly different as a function of race ($H(1) = 16.56, p < .001$). To further examine the relationship between type of school and race, a chi-square analysis was conducted. There was a significant association between race and whether or not the student went to a private school, $\chi^2(1) = 15.37, p < .001$. This represents that, based on the odds ratio, the odds of Caucasian students attending private school was 2.72 times higher than non-Caucasians.

Initial Validation. To determine the reliability of the factor structure derived from the exploratory factor analysis conducted in Phase II, a confirmatory factor analysis (CFA) using the MBVS-pilot measure (after item elimination) was conducted. The confirmatory factor analysis using Amos version 22 was conducted for the purpose of determining if three underlying dimensions were evident from the data, as was found in Phase II. Considering these findings along with Roth's (1994) recommendation for conducting CFA using AMOS with missing data, the listwise deletion method was chosen, as there was less than five percent missing data. Using listwise deletion 29 participants were removed, resulting in 623 total participants examined within this CFA.

Table 7 presents the fit indices associated with the three-factor models tested, specifically the model chi square, Tucker-Lewis Index, the comparative fit index (Bentler, 1990), and the root-mean-square error of approximation (Browne & Cudeck, 1993). The Tucker-Lewis Index (TLI) and comparative fit index (CFI) values between .90-.95 and root mean square error of approximation (RMSEA) values (with 90% confidence interval) between .05-.08 were understood to indicate adequate data-model fit (Kenny, 2014). Additionally, factor loadings, $\lambda > .50$ were considered strong loadings, as they account for over 25% of variance. Thus items with factor loadings below .50 were considered for elimination. Latent construct reliability was considered desirable if $H \geq .70$, indicating a strong intra-factor correlation (Mueller & Hancock, 2008).

Table 7. Confirmatory Factor Analysis of the MBVS

Models	X^2	Df	TLI	CFI	RMSEA [90%CI]
Model 1	1693.17	296	.800	.818	.087 [.083, .091]
Model 2	1471.60	272	.820	.837	.084 [.080, .088]
Model 3	1399.80	249	.823	.841	.086 [.082, .091]
Model 4	1281.20	248	.841	.857	.082 [.077, .086]
Model 5	985.22	244	.900	.912	.070 [.065, .074]

The confirmation factor analysis (CFA) Model 1 tested the three-factor structure for the MBVS based on the EFA findings in Phase II, including all 26 items. Using the above stated model validity standards, Model 1 did not yield an adequate data-model fit ($X^2 = 1693.17$, $df = 296$, $p < .001$, $CFI = .818$, $TLI = .800$, $RMSEA [90\%CI] = .087 [.083, .091]$). Model 1 was characterized by a wide range of factor loadings for each construct (λ range = .42-.81, $p < .001$), and adequate maximal reliability for all factors (H range = .86-.90).

Due to low factor loading on Model 1, two items were considered for elimination in CFA Model 2. One item (“Screenshot SnapChats that I send and post them on the internet”) was eliminated due to poor factor loading and the resulting fit indices were examined. Model 2

yielded a marginally stronger, yet still inadequate data-model fit ($X^2 = 1471.60$, $df = 272$, $p < .001$, CFI = .837, TLI = .820, RMSEA [90%CI] = .084 [.080, .088]). Model 2 was characterized by a wide range of factor loadings for each construct (λ range = .40-.81, $p < .001$), and adequate maximal reliability for all factors (H range = .86-.90).

Due to low factor loading on Model 2, one item (“Post embarrassing videos of me (SnapChat, YouTube, Facebook)”) was eliminated in CFA Model 3. Model 3 yielded a marginally stronger, yet still inadequate data-model fit ($X^2 = 1399.80$, $df = 249$, $p < .001$, CFI = .841, TLI = .823, RMSEA [90%CI] = .086 [.082, .091]). Model 3 was characterized by robust factor loadings for each construct (λ range = .52 – .81, $p < .001$), and adequate maximal reliability for all factors (H range = .86-.90).

Due to high inter-item correlation, resulting in high modification indices, one set of items were correlated within CFA Model 4. “Make fun of my weight” and “Make fun of my size” were correlated in this model, due similarity in content. Model 4 yield a marginally stronger, yet still inadequate data-model fit ($X^2 = 1281.20$, $df = 248$, $p < .001$, CFI = .857, TLI = .841, RMSEA [90%CI] = .082 [.077, .086]). Model 4 was characterized by robust factor loadings for each construct (λ range = .51 – .82, $p < .001$), and adequate maximal reliability for all factors (H range = .86-.90).

Due to additional high inter-item correlations, as per the modification indices, four additional pairs were correlated in CFA Model 5, due to similar in content (“Make fun of me” with “Tease me,” “Punch or hit me” with “Bump into me on purpose,” “Spread rumors about me in text message” with “Spread rumors about me,” and “Make fun of me for being smart” with “Make fun of me for my grades”). Model 5 yield an adequate data-model fit ($X^2 = 985.22$, $df = 244$, $p < .001$, CFI = .912, TLI = .900, RMSEA [90%CI] = .070 [.065, .074]). Model 5 was

characterized by robust factor loadings for each construct (λ range = .50 – .84, $p < .001$), and adequate maximal reliability for all factors (H range = .86-.90). Given that Model 5 was more psychometrically and statistically sound and theoretically coherent, it was selected as the preferred measurement structure for the MBVS (see Figure 2). The final 24-item version of the MBVS is provided in Appendix L. This final scale includes 11 items within the *Direct Bullying* scale, 6 items within the *Indirect Bullying* scale, and 7 items within the *Evaluative Bullying* scale.

Reliability Analyses. Further analysis of Model 5, the preferred measurement model, included reliability estimates by conducting internal consistency analyses using Cronbach's alpha coefficient for the subscales and the composite scale. All three factors demonstrated good internal consistency estimates ($\alpha = .89$ for *Direct Bullying*, $\alpha = .85$ for *Indirect Bullying*, $\alpha = .84$ for *Evaluative Bullying*; DeVellis, 2003). The composite, which combines each of the three factors, demonstrated strong internal consistency ($\alpha = .93$; DeVellis, 2003).

Construct Validity. Construct validity data was assessed through correlation analyses between the MBVS factors and composite and the factors of the PECK (*Physical, Relational-Verbal, Cyber-bullying, and Bullying Based on Culture*), academic performance, and composite scores of the YIPS and YEPS. A Bonferroni correction was applied with a conservation p -value of .003 used as the significance level, due to the number of correlations being conducted. Descriptive statistics of validity measures are presented in Table 8. Construct validity information is presented in Tables 9 and 10.

Hypothesis two, which stated that MBVS factors would be positively correlated to the YIPS and the YEPS, was supported. The MBVS Total ($r = .42$, $p < .001$), MBVS Direct Bullying ($r = .30$, $p < .001$), MBVS Indirect Bullying ($r = .49$, $p < .001$), and MBVS Evaluative Bullying

($r=.42, p<.001$) were all positively related to the YIPS. Similarly, the MBVS Total ($r=.42, p<.001$), MBVS Direct Bullying ($r=.32, p<.001$), MBVS Indirect Bullying ($r=.42, p<.001$), and MBVS Evaluative Bullying ($r=.36, p<.001$) were all positively related to the YEPS.

Table 8. Descriptive Statistics of YIPS, YEPS, PECK, and Academic Performance

Scale	Items	Min., Max.	<i>M</i>	<i>SD</i>	<i>g</i> ₁	<i>g</i> ₂	<i>α</i>
YIPS	10	1, 4	1.77	.59	1.18	1.53	.88
YEPS	10	1, 3.3	1.65	.40	.91	.86	.77
PECK R-V	11	0, 3.27	.42	.50	2.01	5.70	.89
PECK P	9	0, 3.22	.12	.33	5.06	33.37	.91
PECK C	8	0, 2.38	.11	.29	4.59	26.34	.86
PECK BR	4	0, 2.75	.12	.30	4.46	27.22	.62
PECK Total	32	0, 2.69	.22	.31	3.18	15.02	.93
Academic Performance	1	1, 6	1.88	1.03	1.39	1.60	--

Note. PECK R-V = PECK Relational-Verbal Bullying, PECK P = PECK Physical Bullying, PECK C = PECK Cyber-bullying, PECK BR = PECK Bullying based on race. Min., Max. = Minimum and maximum observed scale scores. *g*₁ = Skewness. *g*₂ = Kurtosis.

Table 9. Validity Correlations of MBVS, YIPS, YEPS, and Academic Performance.

	MBVS Direct Bullying	MBVS Indirect Bullying	MBVS Evaluative Bullying	MBVS Total
YIPS	.30**	.49**	.42**	.42**
YEPS	.32**	.42**	.36**	.42**
Academic Performance	.08	.08	.07	.09

* $p<.003$, ** $p<.001$

Table 10. Validity Correlations of MBVS and PECK.

	MBVS Direct Bullying	MBVS Indirect Bullying	MBVS Evaluative Bullying	MBVS Total
PECK Relational Verbal Bullying	.58**	.68**	.60**	.72**
PECK Physical Bullying	.56**	.27**	.34**	.48**
PECK Cyber-bullying	.45**	.51**	.43**	.54**
PECK Bullying Based on Race	.39**	.32**	.38**	.43**
PECK Total	.63**	.62**	.59**	.72*

* $p<.003$; ** $p<.001$

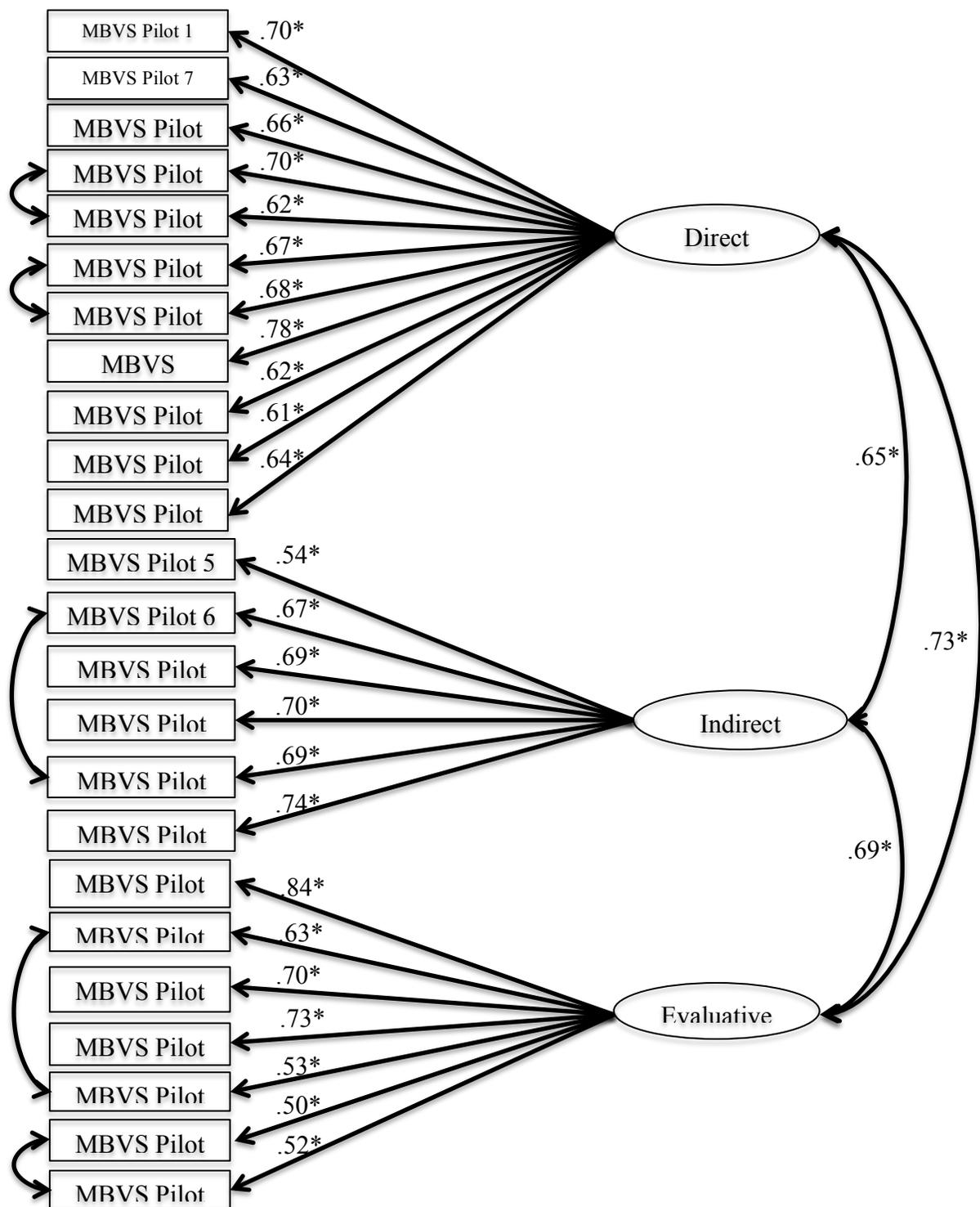


Figure 2. Preferred CFA measurement Model for the MBVS. * = Standardized factor loadings (λ) significant at the $p < .001$ level. H = Latent construct reliability coefficient.

Hypothesis three, which stated that MBVS factors would be positively correlated to PECK factors was unable to be fully examined, as the MBVS factor structure produced a three-factor model, rather than the four-factor model as predicted. Thus, the relationships between the resulting three MBVS factors, the MBVS composite, the PECK factors, and the PECK composite were examined. The MBVS Total ($r=.72, p<.003$), MBVS Direct Bullying ($r=.63, p<.001$), MBVS Indirect Bullying ($r=.62, p<.001$), and MBVS Evaluative Bullying ($r=.59, p<.001$) were all positively related to the PECK Total. The MBVS Total ($r=.72, p<.001$), MBVS Direct Bullying ($r=.58, p<.001$), MBVS Indirect Bullying ($r=.68, p<.001$), and MBVS Evaluative Bullying ($r=.60, p<.001$) were all positively related to the PECK *Relational-Verbal Bullying* subscale. The MBVS Total ($r=.48, p<.001$), MBVS Direct Bullying ($r=.56, p<.001$), MBVS Indirect Bullying ($r=.27, p<.001$), and MBVS Evaluative Bullying ($r=.34, p<.001$) were all positively related to the PECK *Physical Bullying* subscale. The MBVS Total ($r=.54, p<.001$), MBVS Direct Bullying ($r=.45, p<.001$), MBVS Indirect Bullying ($r=.51, p<.001$), and MBVS Evaluative Bullying ($r=.43, p<.001$) were all positively related to the PECK *Cyber-Bullying* subscale. Finally, the MBVS Total ($r=.43, p<.001$), MBVS Direct Bullying ($r=.39, p<.001$), MBVS Indirect Bullying ($r=.32, p<.001$), and MBVS Evaluative Bullying ($r=.38, p<.001$) were all positively related to the PECK *Bullying Based on Culture* subscale.

Hypothesis four, which stated that MBVS factors and composite would be negatively related to academic performance, was not supported, as correlations were not statistically significant when using a Bonferroni correction and significance level of .003. The MBVS Total ($r=.09, p=.03$; ns), MBVS Direct Bullying ($r=.08, p=.07$; ns), MBVS Indirect Bullying ($r=.08, p=.06$; ns), and MBVS Evaluative Bullying ($r=.07, p=.08$; ns) were not significantly related to academic performance.

CHAPTER 3. DISCUSSION

The purpose of the current study was to develop a multidimensional measure of bully victimization using a sample of adolescent youth. Bullying was defined as a specific type of aggressive, interpersonal behavior that involves intent to cause harm, occurs repetitively, and involves an imbalance of power (Olweus 1978, 1999, 2001). The initial purpose of this study was to conceptualize the construct of bully victimization and its constructs and then operationalize and generate these constructs via test items and scales, resulting in the creation of the Multidimensional Bullying Victimization Scale (MBVS).

3.1 Measure Development and Refinement

Phase I was designed to generate a list of potential items for inclusion in a pilot measure of bully victimization. Items were generated via focus groups and reviewing previous measures and bullying literature. The items were evaluated by an expert in child development and clinical psychology, and resulted in a 74-item pilot measure. Phase II was designed to evaluate the items and help determine which items demonstrated statistical rigor and should be retained.

Additionally, Phase II was designed to evaluate the latent-structure of the pilot measure, assessing if the hypothesized four subscales – physical, relational, cyber, and race-based bullying – would demonstrate a significant statistical model of bullying. The Multidimensional Bullying Victimization Scale pilot measure was comprised of 15 items assessing physical bullying, 17 items assessing relational, 23 assessing cyberbullying, and 19 assessing race or cultural-based bullying.

The second purpose of this study was to examine the psychometric properties of the pilot version of the MBVS. This was accomplished by conducting two phases of factor analyses with the intent to establish a valid measure. Adolescents, recruited from a variety of sites, rated each

item in terms of frequency (i.e., never, sometimes, often, very often). The findings from the first factor analysis, within Phase II, indicated that the 26 retained items were non-normally distributed, as is typical of bullying behavior, and that the latent factor structures underlying the items was best characterized by a three-factor solution (direct, indirect, and evaluative bullying), which varied from our original hypothesis of a four-factor structure. Factor 1, labeled *Direct Bullying*, consisted of 11 items that assess experiencing bullying in a personal, direct, and face-to-face manner. Factor 2, labeled *Indirect Bullying*, consisted of 8 items that assess experiences of bullying through other people or through other mediums (e.g., Internet). Factor 3, labeled *Evaluative Bullying*, consisted of 7 items assessing experiences of bullying that are judgmental or negatively evaluating a person's traits or attributes.

Examination of race and ethnicity was conducted to evaluate whether racial differences existed in the type or frequency of bullying experiences endorsed. However, this analysis suggested that bullying did not differ as a function of race or ethnicity. According to Vervoort, Scholte, and Overbeek's (2010), the association between ethnicity and bullying often depends on classroom ethnic composition. Thus, it is possible that race or ethnic differences were not obtained due to the small sample of non-Caucasians within the preset study.

The three subscales and composite scale of the MBVS demonstrated good internal consistency, with all scales having moderate-to-strong positive intercorrelations with each other. The composite score, therefore, may be used as a general index of overall bully victimization, or the three factors may be used to assess experiences of specific types of bullying. Additionally, the readability analysis suggested that the measure is appropriate for youth who read at the third-grade level or higher.

The findings from the confirmatory factor analysis, within Phase III, supported the non-normal distribution of the pilot items, subscales, and the composite scale obtained in the initial factor analysis. Additionally, the three-factor latent structure and construct reliability of the MBVS were confirmed, with some refinement of item inclusion. Two items were eliminated, as they did not demonstrate strong factor loadings. Thus, the final measure consists of the three subscales identified from the Phase II factor analysis, with two items removed from the *Indirect Bullying* subscale, resulting in a six-item subscale. The *Direct Bullying* and *Evaluative Bullying* subscale items remained consistent with Phase II item retention.

3.2 Validity

The third purpose of this study was to provide validity data for the MBVS. Construct validity of the Multidimensional Bullying Victimization Scale was assessed in several ways. The MBVS demonstrated strong intercorrelations between the composite and each of the three subscales, suggesting that the subscales are significantly related to the broader construct of bully victimization. Additionally, the three subscales were moderately correlated, suggesting that each subscale measures a unique subset of victimization experiences. These findings are consistent with previous research that indicates that bullying behaviors are often correlated. Specifically multiple studies have found that one third of cyberbullying victims also are victims of traditional bullying (Erdur-Baker, 2010; Li, 2005, 2006).

Internalizing behaviors (e.g., anxiety, depression; Benedict et al., 2015; Hunt et al., 2012; Nansel et al., 2001; Paul et al., 2013; Waasdorp & Bradshaw, 2015), externalizing behaviors (e.g., hostility (Davidson & Demaray, 2007; Hunt et al., 2012), aggression, retaliatory behaviors (Bradshaw et al., 2015), and poor academic performance (Beran & Li, 2007; Katzer et al., 2009) are consistently found to be strongly correlated with experiences of bully victimization. Thus, it

was hypothesized that higher scores on the MBVS factors would be associated with higher scores on the YIPS, YEPS, and lower scores in academic performance. This hypothesis was partially supported. Similar to previous research on bullying, the MBVS factors and composite score were moderately, positively associated with internalizing (i.e., YIPS) and externalizing (i.e., YEPS) behaviors. However, academic performance was not significantly associated with the direct, indirect, or evaluative bullying subscales, or the MBVS composite. It is possible that the factors and composite scores were not related to academic performance as expected, due to the narrow range of academic performance reported, with most participants reporting above average grades, as well as the low frequency of endorsement of bullying behaviors.

As hypothesized the MBVS factors and composite scores were positively related to the PECK factors and composite scores, with higher scores on one resulting in higher scores on the other. This hypothesis was fully supported, with moderate-to-strong associations between all MBVS and PECK factors and composites. The strong correlations between this previously established measure of bullying and the MBVS demonstrate the presence of convergent validity, suggesting that the MBVS is a valid measure of bully victimization.

Taken together, the results of this study provide evidence that the MBVS is a reliable, stable, and structurally valid assessment measure of adolescent bully victimization. Thus the hypothesis that the MBVS would demonstrate a psychometrically sound, multidimensional structure was supported. This suggests that the MBVS is a technically adequate instrument for potential use in adolescents as an assessment of bullying victimization. As adolescents demonstrate a unique social hierarchical pattern compared to children (Cairns & Cairns, 1991; Krappman, 1999; Schafer et al., 2005), the measure was developed specifically for use with adolescents aged 11-18. In addition, efforts were made to ensure that items were

developmentally appropriate for youth in wording and content. Finally, the reading level was appropriate for all ages of which this measure is postured to assess, providing further evidence that the MBVS is appropriate for youth samples. Because of its multidimensional nature, the MBVS is useful for assessing bully victimization and its specific dimensions.

3.3 Limitations and Future Directions

Despite the strengths of the results, this study has a number of limitations. First, one purpose of the study was to obtain data from a racially and ethnically diverse sample. However, the sample of participants collected was predominantly Caucasian and predominantly attend private schools. This was due to the hesitation and refusal of many schools and school districts, of which were predominantly public, to participate in data collection. According to Shujja, Atta, and Jawwad (2014), within public schools children endorse more bullying, victimization, and physical fights than do children whom attend private schools. Therefore, the current sample's largely private school attendance and racial/ethnic homogeneity may have affected the frequency and variability of items endorsed and may not be representative of children who attend public schools. Future studies aiming to refine the development of the MBVS should seek to obtain reliability and validity data using a more heterogeneous sample of school settings.

The minimal diversity within this study's sample may have lead to reduced endorsement of items related to race-base bullying, which may have ultimately resulted in the lack of support for this hypothesized factor. Additionally, with ethnicity and bullying involvement being dependent on the ethnic composition of the classroom (Vervoort et al., 2010), the lack of diversity within this study may have affected the endorsement of victimization experiences in general, which may affect the generalizability of the results. Future studies aiming to refine the development of the MBVS should seek to obtain reliability and validity data using more racially

diverse samples. Such studies may benefit from the inclusion of items that were deleted due to low frequency, as the current sample was predominantly Caucasian and it is possible that these items would be rated more frequently by a more diverse sample. Additionally, although the sample collected included participants with ages ranging from 11 to 18 and grades 5 through 12, this study's sample was heavily loaded in the high school years. This may affect generalizability of the results to younger adolescents and future research would benefit from the inclusion of a more balanced sample of participants within both age and grade levels.

Clinical implications of the MBVS include its usability within schools and mental health clinics. Administration of the MBVS to adolescents, within the school context, at the beginning of the school year may provide school officials and guidance counselors with important information about the presence of bullying within their student population. This would likely provide school officials with specific information about the prevalence and types of bullying within their school, allowing for consideration of implementing a more tailored intervention specific to their demonstrated needs. Future research may also benefit from using the MBVS prior to and after implementation of a school-wide bullying intervention to support its use as a tool to assist in tailoring interventions and measuring the interventions influence on bullying behaviors. Additionally, considering the importance of a multi-systemic approach as indicated by the social- ecological model of bullying (Espelage, 2014), mental health professionals might benefit from inclusion of the MBVS during evaluations of adolescent clients, as to provide a more comprehensive range of treatment recommendations.

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Appendix A
MBVS-PILOT MEASURE ITEMIZED SUBSCALES

Relational Bullying

Call me mean names
Leave the table when I sit down
Curse at me
Make fun of me
Tease me
Won't let me sit with them
Call me stupid
Yell at me
Ignore me
Spread rumors about me
Make fun of my family members
Tease or laugh at me when I answer questions in class
Make fun of my weight
Leave me out or exclude me
Make fun of me for being smart
Make fun of me for my grades
Make fun of my size

Physical Bullying

Push or shove me
Destroy or damage my things
Spit on me
Trip me on purpose
Punch or hit me
Bump into me on purpose
Kick me
Throw objects at me
Do not let me pass by
Take, hide, or knock my things down
Yank on my belongings
"Wrestle" me to show that they are stronger
Steal from me (money, food)
Remove/push a chair out from under me
Threaten to hurt me if I do not do what they want

Cyberbullying

Post negative comments on my pictures, comments, or statuses (Facebook, Twitter, Instagram)
Spread rumors about me in text messages
Send sexual pictures to me (SnapChats, Facebook)
Ignore my texts
Call me repeatedly
Post or send embarrassing pictures or comments about me (Facebook, SnapChat, Instagram, Twitter)
Post my private messages

Threaten or harass me on the phone
Send mean messages over the internet
Send mean SnapChats to me
Send me threatening or mean emails
Gang up on me in chatrooms
Post mean statuses about me without tagging me
Harass me in chatrooms
Screenshot my pictures or texts and send them to be mean
Tweet about embarrassing things I have done
“Rate” my appearance on the internet
Call me and make three-way calls without my knowledge
Post embarrassing videos of me (SnapChat, YouTube, Facebook)
Screenshot SnapChats that I send and post them on the internet
Send me anonymous, mean messages on the internet (Tumblr, Facebook)
Say or ask me sexual things in chatrooms
Send mean or threatening text messages to me

Race and Culture-based Bullying

Make fun of my religious practice or prayers
Make fun of my appearance
Make fun of the food I eat
Tease me about my religious beliefs
Make racial comments about me
Mock or taunt me over the internet
Make fun of where I live
Tease me about my accent
Make fun of my family’s traditions
Make fun of my appearance
Make me repeat words or say specific words because of my accent
Make fun of my language
Exclude me because of my skin color
Make negative comments about my clothing
Make fun of my physical features (my eyes, my nose)
Make fun of me because of my clothes
Make fun of me when I speak a non-English language
Make negative comments about the country my family is from
Say negative things about my ethnic background (for example, stating all Asians look the same)

Appendix B IRB APPROVAL

ACTION ON PROTOCOL APPROVAL REQUEST



Dr. Dennis Landin, Chair
130 David Boyd Hall
Baton Rouge, LA 70803
P: 225.578.8692
F: 225.578.5983
lrb@lsu.edu | lsu.edu/lrb

TO: Mary Lou Kelley
Psychology

FROM: Dennis Landin
Chair, Institutional Review Board

DATE: December 3, 2015

RE: IRB# 3486

TITLE: Development of the Multidimensional Bullying Scale (MBS)

New Protocol/Modification/Continuation: Modification

Brief Modification Description: Increase number of participants to 1300

Review type: Full Expedited Review date: 12/3/2015

Risk Factor: Minimal Uncertain Greater Than Minimal

Approved Disapproved

Approval Date: 12/3/2015 Approval Expiration Date: 12/2/2016

Re-review frequency: (annual unless otherwise stated)

Number of subjects approved: 1300

LSU Proposal Number (if applicable):

Protocol Matches Scope of Work in Grant proposal: (if applicable) _____

By: Dennis Landin, Chairman 

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING –

Continuing approval is **CONDITIONAL** on:

1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
7. Notification of the IRB of a serious compliance failure.
8. **SPECIAL NOTE: If you would like to increase the number of participants, make sure you get IRB approval first.**

*All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at <http://www.lsu.edu/lrb>

Appendix C CONSENT FORM

1. Study Title: Development of the Multidimensional Bullying Victimization Scale (MBVS)

2. Performance Sites: Schools and clinic waiting rooms in Louisiana, Michigan, and Texas. Research flyers will be posted throughout the greater Baton Rouge area with the study's contact information for interested participants to gather more information about their interest in participating.

3. Names and Telephone Numbers of Investigators: The following investigators are available for questions about this study, M-F, 8:00 a.m. – 4:30 p.m.:

Shannon M. Harbin, M.S. (810) 348 – 1745
Seandra J. Cosgrove, B.S. (720) 404 – 5649
Mary Lou Kelley, Ph.D. (225) 578 – 7792

4. Purpose of the Study: The purpose of this study is to create a psychometrically sound measure to assess bullying in school-aged children.

5. Participant Inclusion: Adolescents ages 11 to 18. Pregnant females are excluded.

6. Number of Participants: 1300

7. Study Procedures: If your child's classroom is selected, your child will spend approximately 20-30 minutes during an elective class completing a packet of questionnaires, which will be returned to the researchers. The packet will contain a questionnaire with items assessing your experiences with various bullying behaviors. If you are recruited in a clinic waiting room, your child will complete the questionnaire packet in the waiting room. If you are recruited through a community posted flyer, your child will complete the questionnaire packet at home under parental supervision, and a self-addressed envelope will be provided for the packets return.

8. Benefits: Development of a psychometrically sound measure of bullying will allow researchers and clinicians to more fully understand their client's experience with bullying. This may provide the field of psychology with a more thorough understanding of the various factors of bullying.

9. Risks: There are only minimal risks associated with participation. Your child may become uncomfortable while completing the questionnaires because it asks about their experiences with bullying behaviors. Youth who become upset will be able to discuss issues or concerns with the researcher. **As a mandated reporter of abuse and neglect, any disclosure or threat of abuse revealed during data collection will be reported to Child Protective Services immediately. The clinician will inform you if a report is warranted.**

10. Right to Refuse: Participants may choose not to participate or to withdraw from the study at any time without penalty.

11. Right to Privacy: Results of the study may be published, but no names or identifying information will be included in the publication. Data will remain confidential to researchers and will be coded and securely stored. Data will be kept confidential unless release is legally compelled.

12. Withdrawal: Participants have the right to withdraw at any time without consequence.

This study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about participants' rights or other concerns, I can contact Dennis Landin, PhD, Chairman, LSU Institutional Review Board (225.578.8692). I agree to allow my child to participate in the study described above and acknowledge the researchers' obligation to provide me with a copy of this consent form if signed by me.

Signature of Parent of Participant

Date

Child's Name

Child's Age

The parent of the study participant has indicated to me that he/she is unable to read. I certify that I have read this consent form to the parent and explained that by completing the signature line above, the parent has given consent for his/her child to participate.

Signature of Reader

Date

Appendix D ASSENT FORM

1. Study Title: Development of the Multidimensional Bullying Victimization Scale (MBVS)

2. Performance Sites: Schools and clinic waiting rooms in Louisiana, Michigan, and Texas. Research flyers will be posted throughout the greater Baton Rouge area with the study's contact information for interested participants to gather more information about their interest in participating.

3. Names and Telephone Numbers of Investigators: The following investigators are available for questions about this study, M-F, 8:00 a.m. – 4:30 p.m.:

Shannon M. Harbin, M.S. (810) 348 – 1745
Seandra J. Cosgrove, B.S. (720) 404 - 5649
Mary Lou Kelley, Ph.D. (225) 578 - 7792

4. Purpose of the Study: The purpose of this study is to create a psychometrically sound measure to assess bullying in school-aged children.

5. Participant Inclusion: Adolescents ages 11 to 18. Pregnant females are excluded.

6. Number of Participants: 1300

7. Study Procedures: In your classroom, pediatric waiting room, or at home under parental supervision you will be asked to complete questionnaire, taking roughly 10-30 minutes, which you will give or mail back to the researchers. This questionnaire will have items assessing your experiences with various bullying behaviors.

8. Benefits: Development of a psychometrically sound measure of bullying experiences will allow researchers and clinicians to more fully understand their client's experience with bullying.

9. Risks: There are only minimal risks related to your participation. You may become uncomfortable while completing the packet of questionnaires because it asks about their experiences with bullying. If you become upset at any time, you will be able to talk about your concerns and issues with the researcher. **If we suspect abuse or neglect, we must tell your parents and Child Protective Services immediately.**

10. Right to Refuse: You may choose not to participate or to withdraw from the study at any time without penalty.

11. Right to Privacy: Results of the study may be published, but your name will not be included in the publication. Data will remain confidential and will be coded and securely stored. Data will be kept confidential unless release is legally compelled.

_____ age of child

Child's name (Printed)

Child's signature

Appendix E
DEMOGRAPHIC FORM

Please complete the following information. None of the personal information you provide will be associated with your survey responses. We simply need this information in order to enter your name into the gift card raffle after you have successfully completed the survey.

1. Name: _____
Address: _____
City/State: _____
Zip Code: _____
Email address: _____
Phone Number: _____

2. What is your gender? Male Female

3. What is your age (11-18)? _____

4. What is your race/ethnicity?
 - a. American Indian / Alaskan Native
 - b. Asian / Pacific Islander
 - c. Black / African American
 - d. Caucasian / White
 - e. Hispanic / Latino
 - f. Biracial / Multiracial
 - g. Decline to answer
 - h. Other (please specify): _____

5. What is your parents' marital status?
 - a. Married
 - b. Divorced
 - c. Single
 - d. Living with Partner
 - e. Widowed
 - f. Other (please specify): _____

6. What grade are you in (5th – 12th)? _____

7. What grades do you currently receive in school (or did you receive last year)?
 - a. Mostly As
 - b. Mostly As and Bs
 - c. Mostly Bs
 - d. Mostly Bs and Cs
 - e. Mostly Cs
 - f. Mostly Cs and Ds
 - g. Mostly Ds
 - h. Mostly Ds and Fs
 - i. Mostly Fs

8. What school do you attend? _____

9. What type of school do you attend?
 - a. Private Religious
 - b. Private Non-Religious
 - c. Public
 - d. Charter
 - e. Other (please specify): _____

Appendix F MBVS PILOT MEASURE

Sometimes kids get bullied by their classmates and friends. Please indicate which of the answers describes how often these things have happened to you.

My Peers:	Never	Sometimes	Often	Very Often
1. Call me mean names	0	1	2	3
2. Leave the table when I sit down	0	1	2	3
3. Make fun of my religious practice or prayers	0	1	2	3
4. Make fun of the food I eat	0	1	2	3
5. Post negative comments on my pictures, comments, or statuses (e.g., Facebook, Twitter, Instagram)	0	1	2	3
6. Spread rumors about me in text messages	0	1	2	3
7. Push or shove me	0	1	2	3
8. Destroy or damage my things	0	1	2	3
9. Curse at me	0	1	2	3
10. Send sexual pictures to me (e.g, SnapChats, Facebook)	0	1	2	3
11. Tease me about my religious beliefs	0	1	2	3
12. Make fun of me	0	1	2	3
13. Spit on me	0	1	2	3
14. Trip me on purpose	0	1	2	3
15. Ignore my texts	0	1	2	3
16. Call me repeatedly	0	1	2	3
17. Make racial comments about me	0	1	2	3
18. Mock or taunt me over the internet	0	1	2	3
19. Tease me	0	1	2	3
20. Make fun of where I live	0	1	2	3
21. Punch or hit me	0	1	2	3
22. Bump into me on purpose	0	1	2	3
23. Post or send embarrassing pictures or comments about me (e.g., Facebook, SnapChat, Instagram, Twitter)	0	1	2	3
24. Post my private messages	0	1	2	3
25. Tease me about my accent	0	1	2	3
26. Make fun of my family's traditions	0	1	2	3
27. Threaten or harass me on the phone	0	1	2	3
28. Won't let me sit with them	0	1	2	3

29. Call me stupid	0	1	2	3
30. Kick me	0	1	2	3
31. Make fun of my appearance	0	1	2	3
32. Send mean messages over the internet	0	1	2	3
33. Send mean SnapChats to me	0	1	2	3
34. Send me threatening or mean emails	0	1	2	3
35. Make me repeat words or say specific words because of my accent	0	1	2	3
36. Gang up on me in chat rooms	0	1	2	3
37. Yell at me	0	1	2	3
38. Make fun of my appearance	0	1	2	3
39. Throw objects at me	0	1	2	3
40. Make fun of my language	0	1	2	3
41. Post mean statuses about me without tagging me	0	1	2	3
42. Harass me in chatrooms	0	1	2	3
43. Ignore me	0	1	2	3
44. Make fun of my size	0	1	2	3
45. Do not let me pass by	0	1	2	3
46. Screenshot my pictures or texts and send them to be mean	0	1	2	3
47. Tweet about embarrassing things I have done	0	1	2	3
48. Make negative comments about my clothing	0	1	2	3
49. Spread rumors about me	0	1	2	3
50. Make fun of my family members	0	1	2	3
51. Take, hide, or knock my things down	0	1	2	3
52. Exclude me because of my skin color	0	1	2	3
53. "Rate" my appearance on the internet	0	1	2	3
54. Call me and make three-way calls without my knowledge	0	1	2	3
55. Yank on my belongings	0	1	2	3
56. Make fun of my physical features (for example, my eyes, or my nose)	0	1	2	3
57. Tease or laugh at me when I answer questions in class	0	1	2	3
58. Make fun of my weight	0	1	2	3
59. Post embarrassing videos of me (SnapChat, YouTube, Facebook)	0	1	2	3
60. Screenshot SnapChats that I send and post them on the internet	0	1	2	3
61. Leave me out or exclude me	0	1	2	3
62. Make fun of me because of my clothes	0	1	2	3
63. Make fun of me when I speak a non-English language	0	1	2	3

64. "Wrestle" me to show that they are stronger	0	1	2	3
65. Make fun of me for being smart	0	1	2	3
66. Make negative comments about the country my family is from	0	1	2	3
67. Send me anonymous, mean messages on the internet (Tumblr, Facebook)	0	1	2	3
68. Make fun of me for my grades	0	1	2	3
69. Steal from me (money, food)	0	1	2	3
70. Say or ask me sexual things in chatrooms	0	1	2	3
71. Say negative things about my ethnic background (e.g., stating all Asians look the same)	0	1	2	3
72. Remove/push a chair out from under me	0	1	2	3
73. Send mean or threatening text messages to me	0	1	2	3
74. Threaten to hurt me if I do not do what they want	0	1	2	3

Appendix G
DELETED ITEMS

Item Description	Deletion Rational
Leave the table when I sit down	Low frequency occurrence
Make fun of my religious practice or prayers	Low frequency occurrence
Destroy or damage my things	Low frequency occurrence
Make fun of the food I eat	Failure to load
Send sexual pictures to me (e.g., SnapChats, Facebook)	Low frequency occurrence
Tease my about my religious beliefs	Low frequency occurrence
Spit on me	Low frequency occurrence
Trip me on purpose	Low frequency occurrence
Call me repeatedly	Low frequency occurrence
Make racial comments about me	Low frequency occurrence
Mock or taunt me over the internet	Low frequency occurrence
Make fun of where I live	Failure to load
Post or send embarrassing pictures or comments about me (e.g., Facebook, SnapChat, Instagram, Twitter)	Broad Factor Loading
Post my private messages	Low frequency occurrence
Tease me about my accent	Low frequency occurrence
Make fun of my family's traditions	Low frequency occurrence
Threaten or harass me on the phone	Low frequency occurrence
Won't let me sit with them	Low frequency occurrence
Kick me	Low frequency occurrence
Make fun of my appearance	High inter-item correlation
Send mean messages over the internet	Low frequency occurrence
Send mean SnapChats to me	Low frequency occurrence
Send me threatening or mean emails	Low frequency occurrence
Make me repeat words or say specific words because of my accent	Failure to Load
Gang up on me in chatrooms	Low frequency occurrence
Make fun of my language	Low frequency occurrence
Post mean statuses about me without tagging me	Low frequency occurrence
Harass me in chatrooms	Low frequency occurrence
Do not let me pass by	Low frequency occurrence
Screenshot my pictures or text and send them to be mean	Low frequency occurrence
Tweet about embarrassing things I have done	Broad Factor Loading
Make fun of my family members	
Exclude me because of my skin color	Low frequency occurrence
"Rate" my appearance on the internet	Low frequency occurrence
Call me and make three-way calls without my knowledge	Low frequency occurrence
Yank on my belongings	Low frequency occurrence
Tease or laugh at me when I answer questions in class	Failure to Load
Make fun of me because of my clothes	Low frequency occurrence
Make fun of me when I speak a non-English language	Low frequency occurrence
"Wrestle" me to show that they are stronger	Low frequency occurrence
Make negative comments about the country my family is	Low frequency occurrence

from	
Send anonymous, mean messages on the internet (e.g., Tumblr, Facebook)	Low frequency occurrence
Steal from me (money, food)	Failure to Load
Say or ask me sexual things in chatrooms	Low frequency occurrence
Say negative things about my ethnic background (e.g., stating all Asians look the same)	Low frequency occurrence
Remove/push a chair out from under me	Low frequency occurrence
Send mean or threatening text messages to me	Low frequency occurrence
Threaten to hurt me if I do not do what they want	Low frequency occurrence

Appendix H
MBVS REVISED MEASURE

Sometimes kids get bullied by their classmates and friends. Please indicate which of the answers describes how often these things have happened to you.

My Peers:	Never	Sometimes	Often	Very Often
1. Call me mean names	0	1	2	3
2. Post negative comments on my pictures, comments, or statuses (e.g., Facebook, Twitter, Instagram)	0	1	2	3
3. Spread rumors about me in text messages	0	1	2	3
4. Push or shove me	0	1	2	3
5. Curse at me	0	1	2	3
6. Make fun of me	0	1	2	3
7. Ignore my texts	0	1	2	3
8. Tease me	0	1	2	3
9. Punch or hit me	0	1	2	3
10. Bump into me on purpose	0	1	2	3
11. Call me stupid	0	1	2	3
12. Yell at me	0	1	2	3
13. Make fun of my appearance	0	1	2	3
14. Throw objects at me	0	1	2	3
15. Ignore me	0	1	2	3
16. Make fun of my size	0	1	2	3
17. Make negative comments about my clothing	0	1	2	3
18. Spread rumors about me	0	1	2	3
19. Take, hide, or knock my things down	0	1	2	3
20. Make fun of my physical features (for example, my eyes, or my nose)	0	1	2	3
21. Make fun of my weight	0	1	2	3
22. Post embarrassing videos of me (SnapChat, YouTube, Facebook)	0	1	2	3
23. Screenshot SnapChats that I send and post them on the internet	0	1	2	3
24. Leave me out or exclude me	0	1	2	3
25. Make fun of me for being smart	0	1	2	3
26. Make fun of me for my grades	0	1	2	3

Appendix I
YOUTH INTERNALIZING PROBLEMS SCREENER

Here are some questions about what you think, feel, and do. Read each sentence and circle the one best answer.

	Almost Never	Some- times	Often	Almost Always
1. I feel nervous or afraid.	1	2	3	4
2. I feel very tired and drained of energy.	1	2	3	4
3. I find it hard to relax and settle down.	1	2	3	4
4. I get bothered by things that didn't bother me before.	1	2	3	4
5. I have uncomfortable and tense feelings in my body.	1	2	3	4
6. I feel moody or grumpy.	1	2	3	4
7. I feel like I'm going to panic or think I might lose control.	1	2	3	4
8. I do not really enjoy doing anything anymore.	1	2	3	4
9. I feel worthless or lonely when I'm around other people.	1	2	3	4
10. I have headaches, stomachaches, or other pains.	1	2	3	4

Appendix J
YOUTH EXTERNALIZING PROBLEMS SCREENER

Here are some questions about what you think, feel, and do. Read each sentence and circle the one best answer.

	Almost Never	Some- times	Often	Almost Always
1. I forget things and make mistakes.	1	2	3	4
2. I lose my temper and get angry with other people.	1	2	3	4
3. I have a hard time sitting still when other people want me to.	1	2	3	4
4. I fight and argue with other people.	1	2	3	4
5. I have trouble staying organized and finishing assignments.	1	2	3	4
6. I break rules whenever I feel like it.	1	2	3	4
7. I talk a lot and interrupt others when they are talking.	1	2	3	4
8. I say or do mean things to hurt other people.	1	2	3	4
9. I have hard time focusing on things that are important.	1	2	3	4
10. I like to annoy people or make them upset.	1	2	3	4

Appendix K
THE PERSONAL EXPERIENCES CHECKLIST
The Personal Experiences Checklist

Thinking about the last month or so at school, **how often** do the following things happen? Please **circle** the best response.

1. Other kids play nasty practical jokes on me where I might get hurt or injured.	Never	Rarely	Some-times	Most days	Every day
2. The other kids ignore me on purpose.	Never	Rarely	Some-times	Most days	Every day
3. Other kids try to turn my friends against me.	Never	Rarely	Some-times	Most days	Every day
4. Other kids say nasty things to me on an instant messenger, chat room or bulletin board.	Never	Rarely	Some-times	Most days	Every day
5. Other kids make fun of my language.	Never	Rarely	Some-times	Most days	Every day
6. Other kids tease me about things that aren't true.	Never	Rarely	Some-times	Most days	Every day
7. Other kids punch me.	Never	Rarely	Some-times	Most days	Every day
8. Other kids make fun of my culture.	Never	Rarely	Some-times	Most days	Every day
9. Other kids make prank calls to me.	Never	Rarely	Some-times	Most days	Every day
10. Other kids threaten me over the phone.	Never	Rarely	Some-times	Most days	Every day
11. Other kids tell people not to hang around with me.	Never	Rarely	Some-times	Most days	Every day
12. Other kids won't talk to me because of where I'm from.	Never	Rarely	Some-times	Most days	Every day
13. Other kids make death stares at me.	Never	Rarely	Some-times	Most days	Every day
14. Other kids say nasty things to me by SMS.	Never	Rarely	Some-times	Most days	Every day
15. Other kids tell people to hit me.	Never	Rarely	Some-times	Most days	Every day
16. Other kids send me nasty emails.	Never	Rarely	Some-times	Most days	Every day
17. Other kids kick me.	Never	Rarely	Some-times	Most days	Every day
18. Other kids say mean things about me behind my back.	Never	Rarely	Some-times	Most days	Every day
19. Other kids make rude gestures at me.	Never	Rarely	Some-times	Most days	Every day

20. Other kids say they'll hurt me if I don't do things for them.	Never	Rarely	Sometimes	Most days	Every day
21. Other kids shove me.	Never	Rarely	Sometimes	Most days	Every day
22. Other kids say nasty things about me on websites	Never	Rarely	Sometimes	Most days	Every day
23. Other kids wreck my things.	Never	Rarely	Sometimes	Most days	Every day
24. Other kids send me computer viruses on purpose.	Never	Rarely	Sometimes	Most days	Every day
25. Other kids tease me about my voice.	Never	Rarely	Sometimes	Most days	Every day
26. Other kids trip me over.	Never	Rarely	Sometimes	Most days	Every day
27. Other kids tell people to make fun of me.	Never	Rarely	Sometimes	Most days	Every day
28. Other kids call me names because I'm a bit different.	Never	Rarely	Sometimes	Most days	Every day
29. Other kids hit me.	Never	Rarely	Sometimes	Most days	Every day
30. Other kids harass me over the phone.	Never	Rarely	Sometimes	Most days	Every day
31. Other kids make fun of my friends.	Never	Rarely	Sometimes	Most days	Every day
32. Other kids call me names because I can't do something.	Never	Rarely	Sometimes	Most days	Every day

Appendix L
MBVS FINAL MEASURE

Sometimes kids get bullied by their classmates and friends. Please indicate which of the answers describes how often these things have happened to you.

My Peers:	Never	Sometimes	Often	Very Often
1. Call me mean names	0	1	2	3
2. Post negative comments on my pictures, comments, or statuses (e.g., Facebook, Twitter, Instagram)	0	1	2	3
3. Spread rumors about me in text messages	0	1	2	3
4. Push or shove me	0	1	2	3
5. Curse at me	0	1	2	3
6. Make fun of me	0	1	2	3
7. Ignore my texts	0	1	2	3
8. Tease me	0	1	2	3
9. Punch or hit me	0	1	2	3
10. Bump into me on purpose	0	1	2	3
11. Call me stupid	0	1	2	3
12. Yell at me	0	1	2	3
13. Make fun of my appearance	0	1	2	3
14. Throw objects at me	0	1	2	3
15. Ignore me	0	1	2	3
16. Make fun of my size	0	1	2	3
17. Make negative comments about my clothing	0	1	2	3
18. Spread rumors about me	0	1	2	3
19. Take, hide, or knock my things down	0	1	2	3
20. Make fun of my physical features (for example, my eyes, or my nose)	0	1	2	3
21. Make fun of my weight	0	1	2	3
22. Leave me out or exclude me	0	1	2	3
23. Make fun of me for being smart	0	1	2	3
24. Make fun of me for my grades	0	1	2	3

VITA

Shannon M. Harbin was born in Flint, Michigan to parents James Harbin and Dana Murphy. Shannon attended the University of Michigan in Ann Arbor, Michigan as a psychology major from 2004 to 2008. Shannon graduated with a Bachelor of Arts from the University of Michigan in 2008 majoring in psychology. She then went on to work as a research coordinator for the University of Michigan Department of Psychiatry under the mentorship of Gregory L. Hanna, MD from 2008 to 2012. Shannon attended the University of Michigan – Dearborn from 2009 to 2011 and graduated with distinction with a Masters of Science in clinical health psychology. In 2012, Shannon started the doctoral program in clinical psychology at the Louisiana State University where she currently studies childhood externalizing behaviors and disorders under the mentorship of Mary Lou Kelley, PhD.