Development of The Moral Disengagement and Bullying Scale

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ABSTRACT

DEVELOPMENT OF THE MORAL DISENGAGEMENT AND BULLYING SCALE

Ruth Jeong, M.A.
Department of Psychology
Northern Illinois University, 2022
Michelle Demaray, Director

To understand the underlying cognitive processes of youth involved in bullying has been of interest in bullying literature. The social cognitive theory is an important heuristic to understand bullying behaviors, and particularly the mechanisms of moral disengagement has gained considerable attention in research as an underlying motive for why youth engage in bullying behaviors. The current study is focused on developing a new moral disengagement measure that would incorporate the eight mechanisms of moral disengagement with bullying behaviors. The current study investigated whether the new measure can be distinguished into eight or four factors of moral disengagement mechanisms outlined by Bandura and examined its psychometric properties. Factor analyses of the data resulted in a single-factor 14-item measure with evidence of good fit. Further, the study found that males exhibited higher levels of moral disengagement compared to females using the new measure.
DEVELOPMENT OF THE MORAL DISENGAGEMENT AND BULLYING SCALE

BY

RUTH JEONG

A THESIS SUBMITTED TO THE GRADUATE SCHOOL
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE
MASTER OF ARTS

DEPARTMENT OF PSYCHOLOGY

Thesis Director:
Michelle Demaray
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CHAPTER 1

OVERVIEW

With a high prevalence and its harmful consequences, school bullying is a major concern that is studied extensively in literature. One way to intervene directly with youth who bully is to change their cognitive and social behaviors that underlie their bullying behaviors. Social cognitive theory emphasizes the role of cognition that influences a person’s behavior (Bandura et al., 1996). Individuals’ level of moral disengagement, an aspect of social cognitive theory, has been used to explain why individuals act on their behaviors to engage in bullying. Identifying individuals who are prone to using cognitive strategies that enable them to engage in bullying through moral disengagement may be valuable for future interventions. While Bandura’s moral disengagement scale is generally accepted to assess moral disengagement in bullying literature, the current study intended to create a new moral disengagement measure that would be more pertinent to bullying situations rather than general aggression. Hence, the purpose of this study was to develop such measure that will tap into each of the eight mechanisms outlined by Bandura or by four categories of the moral disengagement mechanisms. The study examined the psychometric properties of the new scale, the Moral Disengagement and Bullying Scale (MDBS), that can be used to measure levels of moral disengagement in bullying situations. Further, the study examined if there were any gender differences associated with the levels of moral disengagement using the MDBS.
Individuals who go through the process of moral disengagement cognitively reconstruct their thinking to believe their immoral actions are acceptable. This is done through various ways as described by eight mechanisms of moral disengagement, which include moral justification, advantageous comparison, diffusion of responsibility, distorting consequences, euphemism, dehumanization, attribution of blame, and displacement of responsibility (Bandura, 2002). With the exception of a handful of studies focused on different specific mechanisms of moral disengagement with bullying (Thornberg, 2007; Thornberg & Jungert, 2014), most studies have examined the association between the broad construct of moral disengagement and bullying. Furthermore, most studies have focused on the level of moral disengagement of perpetrators, reporting bullying and aggressive behavior as positively associated with the activation of moral disengagement (Caravita et al., 2012; Gini, 2006; Menesini et al., 2003; Obermann, 2011; Pornari & Wood, 2010; Thornberg & Jungert, 2013).

According to a meta-analysis by Killer and colleagues (2019), Bandura’s measure of moral disengagement is the standard measure in these studies. While it is widely accepted in bullying literature to use this scale, Bandura’s scale is limiting in that it measures moral disengagement tendencies of adolescent aggression. Some items from Bandura’s scale include outdated terminology, further limiting the use of the scale. As more researchers seek to explore the underlying socio-cognitive processes that drive youths’ behaviors in bullying situations, the current study will contribute to the literature by developing a psychometrically reliable measure tailored to moral disengagement in bullying situations.

The goals of the current study were to: 1) Develop a scale with a multi-factor solution that measures moral disengagement particularly in a bullying context. 2) Examine the evidence
of reliability of the new measure. 3) Examine the evidence of validity of the new measure. and 4) Investigate gender differences in moral disengagement using the new measure.
CHAPTER 2
INTRODUCTION

Bullying Behavior Roles

Bullying in schools can be seen as aggressive behavior that involves an imbalance of power and is repeated over time (Olweus, 1991). Bullying behavior can be carried out through physical contact, by words, or in other ways, such as making faces or by denying another person’s wishes (Olweus, 1991). Those who engage in bullying perpetration are at risk for a number of problems, including psychological problems, social adjustment problems, delinquency, violence, and criminality (Wolke et al., 2013). From a moral standpoint, bullying can be interpreted as an “immoral” behavior as it is recognized as an abuse of power with the intention to harm (Thornberg et al., 2019).

Social Cognitive Theory

Researchers have studied various mechanisms that drive some youth to bully their peers, some to defend and protect the bullied peer, or how some choose to stay uninvolved in a bullying situation (Salmivalli & Voeten, 2004). Understanding cognitive and emotional processes of youth in social contexts has gained considerable attention in attempts to explain factors that predict engagement in bullying role behaviors (Gini, 2006). The social cognitive theory of the moral self (Bandura, 1989) is a theory that has been particularly useful in analyzing the social cognitive components of bullying behaviors. According to this theory, the moral self interacts with cognitive reasoning for deciding moral conduct (Bandura, 1989). In other words, the
concept of moral self is based on the logic that moral reasoning only partly explains why individuals commit immoral actions. Individuals exert self-influence to refrain from behaving in ways that violate their moral standards, as going against their moral self will bring negative consequences (i.e., self-condemnation; Bandura, 2002). However, by using selective activation and disengagement of internal controls through self-regulatory mechanisms, an individual with a moral principle can permit different types of conduct. In addition to the moral self, the social cognitive aspect of this theory is based on the fact that self-regulation of morality is not the only determining factor of how people rationalize their actions. This theory adopts a perspective that people do not operate as autonomous moral agents; rather, their moral actions are influenced by an interaction of cognitive, affective, and social influence (Bandura, 2002). Bandura (1989) introduced the construct of moral disengagement to explain the self-regulative mechanisms and other social influences that govern aggressive behavior.

Moral Disengagement

Bandura argued that even though humans naturally acquire moral standards to regulate their behavior, they also have the capacity to take advantage of self-regulatory mechanisms that ultimately determine if the individual will engage in both proactive and harmful behavior. One of the ways that Bandura identified that individuals bypass their moral standards is with the use of moral disengagement.

Moral Disengagement Mechanisms

Bandura’s construct of moral disengagement can be broken down into eight mechanisms that cluster into four broad categories (Bandura, 2002; Hymel & Bonanno, 2014). In the first broad category, cognitive restructuring, three different mechanisms are identified that individuals use to
view negative or immoral behavior more positively through moral justification, euphemistic labeling, and advantageous comparison. The mechanism of moral justification is when a harmful action is made personally and socially acceptable through viewing the behavior as serving a socially worthy purpose. By giving an immoral act a sanitizing label (euphemistic labeling), those who engage in detrimental behavior are relieved of a sense of personal agency because as the action is seen as benign. Advantageous comparison is seeing a behavior as less immoral by comparing it to a worse behavior. The second category, *minimizing one’s agentive role*, involves displacement and diffusion of responsibility. In displacement of responsibility, responsibility for immoral actions is placed in the hands of a recognized authority that sanctions one’s behavior and takes responsibility for it. By allowing the responsibility of a misconduct to be attributed to several others or to collective decision making, an individual can circumvent personal accountability (diffusion of responsibility). The third broad category, *misrepresenting injurious consequences*, includes one mechanism that ignores or distorts the harm caused by one’s conduct (distortion of consequences). The fourth category, *victim attribution*, includes dehumanizing the victim (characterizing the potential victim as being devoid of human qualities, reducing personal identification of targets of misconduct) and attribution of blame (considering the victims as deserving of the misconduct).

**Bandura’s Moral Disengagement Scale**

Bandura was the first to develop a self-rating scale to measure moral disengagement to examine how it relates to aggressive behavior (Bandura, 1989). This scale has been the most widely accepted scale to measure moral disengagement across countries (Gini et al., 2014). Bandura’s scale assesses proneness to moral disengagement of different forms of aggressive
behaviors in various contexts and interpersonal relationships. Each of the eight mechanisms of moral disengagement is represented by a subset of four items, resulting in 32 items in total. Bandura’s scale includes harmful behaviors such as physically harming others, vandalism, verbal abuse, deceptions, and thefts. Adapted versions of Bandura’s scale have been used; for example, a slight modification of the original version was used to tailor it for a specific population such as racial minority groups (Pelton, Gound, Forehand, & Brody, 2004).

Bandura’s scale also has other versions, such as the short version consisting of 14 items for use with elementary school children and a 24-item version adjusted to adolescents. Despite Bandura’s theoretical conceptualization of moral disengagement as eight distinct mechanisms, the measure is used as a one-dimensional factor structure of moral disengagement, with a high internal consistency (Cronbach alpha=.81; Bandura et al., 1996). Gini and colleagues (2014) conducted a meta-analysis and examined whether the revised moral disengagement scale compared to the original moral disengagement scale yielded a significant between-group difference among aggressive and bullying individuals. The results indicated that the effect was slightly higher in the short revised version of the moral disengagement scale (Bandura’s original scale $r=.24$ and Bandura’s-revised scale $r=.31$).

Current Moral Disengagement Scales and Limitations

Since the development of Bandura’s measure, some studies have created a new moral disengagement scale from Bandura’s original scale to make the scale more applicable to bullying or cyberbullying (Bussey et al., 2015; Hymel et al., 2005; Thornberg & Jungert, 2014).

Bussey and colleagues (2015) examined the association between moral disengagement and cyberbullying using the Cyber Bullying Moral Disengagement Scale. This scale is an eight-item
measure that reworded items on Bandura’s original scale to refer to cyberbullying. One item represented each of the eight moral disengagement mechanisms and responses were measured on a 4-point Likert scale. Bussey and colleagues split their sample in half (total of 964 participants). The first half was examined through an exploratory factor analysis where items loaded on a single factor, accounting for 49% of the variance. There was no report of factor loadings for the items. A confirmatory factor analysis was conducted on the second half of the sample, also resulting in a one-factor model with adequate fit of $\chi(20, N = 486) = 43.08, p < .001, CFI=.98, TLI=.98, \text{ and RMSEA}=.05$. Their results supported that higher levels of moral disengagement proneness were associated with cyberbullying (Bussey et al., 2015).

Hymel and colleagues (2005) identified an 18-item scale that reflected each of the four broad categories of moral disengagement. These items were identified “post hoc” from surveying adolescents about bullying and examining the responses that reflected the four broad categories. These items also were modified to fit the bullying context: five items were under cognitive restructuring, three for minimizing agency, four for distortion of negative consequences, and six for blaming or dehumanizing the victim. They ran a principal component factor analysis (varimax rotation) on the 18 items to examine if adolescents were able to distinguish the four mechanisms. However, most items loaded on a single factor with a high internal consistency (coefficient alpha of .81).

Ribeaud and Eisner (2010) examined the subset of items from both Bandura’s measure and Hymel and colleagues’ measure. They found a moderate association between the two ($r=.51$), with the Bandura scale tapping a broader range of moral disengagement, whereas the Hymel et al. scale measured a more restricted set of moral disengagement about peer bullying. The
factorial analysis of these mean scales resulted in a one-factor solution with the first factor explaining 70.1% of the variance.

Different from the previous two studies that measured moral disengagement as a one-dimensional construct, Thornberg and Jungert’s (2014) measure created a multidimensional construct of moral disengagement. In a previous study, Thornberg and Jungert (2013) developed a scale that originally consisted of 55 items. Exploratory factor analysis revealed a final seven-factor structure based on 18 of the 55 original items, where dehumanization and blaming of the victim were merged into one factor. Thornberg and Jungert’s 18-item moral disengagement measure was rated on a 7-point scale. Thornberg and Jungert (2014) examined this scale using a confirmatory factor analysis. They also examined gender differences and found that boys expressed significantly higher levels of total moral disengagement, euphemistic labeling, diffusion of responsibility, distorting consequences, and victim attribution with small effect sizes. Thornberg and Jungert performed a confirmatory factor analysis and reported that the 7-factor solution was superior to the single higher order factor; chi-square test was not significant for the seven-factor solution, whereas it was for the single-factor solution. Their results on the association between moral disengagement and bullying indicated that bullying was associated with only certain mechanisms, particularly that of moral justification and victim attribution. Other mechanisms (i.e., euphemistic labeling, advantageous comparison, diffusion and displacement of responsibility) were not associated with bullying behavior.

While Hymel and her colleagues’ (2005) scale and Bussey and others’ (2015) Cyber Bullying Moral Disengagement Scale both indicated high internal consistency (Crombach’s alpha=.81 & .85, respectively), their items loaded on a single factor. Thornberg and Jungert (2014) also created a moral disengagement scale tailored to bullying, and while they were able to
confirm a seven-factor model, the internal consistency of the items was relatively weak (Cronbach’s alpha ranging from .26 to .70). The current study aimed to take a further step to create a moral disengagement in bullying measure that distinguishes Bandura’s eight mechanisms that will maintain internal reliability and validity.

Moral Disengagement and Gender Differences

Findings from Bandura and colleagues (1996) and Elliot and Rhinehart (1995) reported males exhibit higher levels of moral disengagement compared to females. This finding was not found in a smaller study with minority youth (Pelton et al., 2004). However, the literature does show a relation between moral disengagement and gender, with boys tending to morally disengage more than girls (Barchia & Bussey, 2010; Obermann, 2011; Perren & Gutzwiller-Helfenfinger, 2012; Thornberg & Jungert, 2013).

Thornberg and Jungert (2014) examined gender differences in their seven mechanisms of moral disengagement and found five of the seven mechanisms of moral disengagement (global moral disengagement, euphemistic labeling, diffusion of responsibility, distorting consequences, and victim attribution) to have gender differences. Compared with girls, boys expressed higher levels of moral disengagement in total moral disengagement and these five mechanisms. However, effect sizes were relatively small except for euphemistic labeling in which the effect size was larger. It has been suggested that gender differences become evident over the course of development, where boys are more likely than girls to become more disengaged (Paciello et al., 2008).

It is important to note that while males typically report higher levels of moral disengagement than females, the association between moral disengagement and bullying has been shown to be typically equivalent for both genders (Bandura et al., 1996; Newton & Bussey, 2012).
Moral Disengagement and Bullying

It has been suggested that individuals who bully others demonstrate low levels of empathy (Caravita et al., 2009; Gini et al., 2007) and have a higher tendency to see aggressive behaviors as acceptable (Thornberg et al., 2017). More recent research focuses on the role of moral disengagement in bullying. Most of the literature related to moral disengagement and bullying has focused mainly on the perpetrator of bullying. They have been said to most likely use moral disengagement strategies to justify their aggressive behavior. Research has consistently found results that aggressive behavior is associated with the activation of moral disengagement mechanisms (Gini et al., 2014) and in cyberbullying perpetration (Kowalski et al., 2014). There is a clear association between bullying and using moral disengagement strategies to justify bullying behavior (Caravita et al., 2012; Gini, 2006; Menesini et al., 2003; Obermann, 2011; Pornari & Wood, 2010; Thornberg & Jungert, 2013). Almeida and colleagues (2009) also found high levels of moral disengagement and positive attitudes toward the role of the bully.

In the collection of studies looking into moral disengagement and aggressive behavior or bully perpetration, only a few of them examined all eight mechanisms of moral disengagement. Of those studies, Thornberg and Jungert (2014) reported bullying was positively correlated with six of the eight mechanisms, excluding advantageous comparison and dehumanization of the victim. Zych and Llorent (2019) used the moral disengagement scale (MDS; Bandura et al., 1996) on adolescent bullying perpetrators and found bullying to be uniquely related to moral justification, euphemistic language, advantageous comparison, and distorting consequences. Wang, Wu, and Chong (2019) used the MDS to examine the roles of the mechanisms among Chinese high school students’ aggression with harsh parenting. Among the eight mechanisms,
this study concluded that only moral justification and euphemistic language were positively associated with child aggression.

**Moral Disengagement and Cyberbullying**

Cyberbullying is a form of bullying that is carried out by electronic means and has features of traditional bullying behaviors (i.e., intentionality, repetition, and power imbalance). It is suggested that the role of moral disengagement in cyberbullying perpetration is less prominent than the role moral disengagement plays in traditional bullying because (a) aggression may require less justification in an online setting compared to in person and (b) the perpetrators may not see the impact of their harmful behaviors because it is not possible to see the immediate response of the victims (Bauman, 2010; Pornari & Wood, 2010). Yet research points to the role that moral disengagement has in the promotion of cyberbullying. A recent meta-analysis by Lo Cricchio et al. (2021) examined whether moral disengagement was related to cyberbullying perpetration and active/passive bystanders' behaviors. They concluded that the relation between moral disengagement and self-reported cyberbullying perpetration was positive and significant in the majority (91%) of the studies examining moral disengagement and cyberbullying perpetration.

**Moral Disengagement and Bullying Behavior and Gender**

The association between moral disengagement and bullying in relation to gender has been less clear. In the case of a meta-analysis by Killer and colleagues (2019), gender differences did not exist in the association of bullying behaviors and moral disengagement. Gini and colleagues (2014) also found in their meta-analysis that gender did not have a moderating effect on the association between bullying and moral disengagement. However, some studies suggested
gender has a moderating effect on the association between bullying and moral disengagement (Travlos et al., 2018). Specifically, Travlos and colleagues (2018) found gender to moderate the effect of moral disengagement on physical bullying compared to verbal bullying or physical victimization. Caravita et al. (2012) reported that only among girls was a lower tendency to morally disengage linked to higher levels of defending behavior. They conclude that this result is consistent with girls being both less morally disengaged (Paciello et al., 2008) and more prone to defending than boys (Pozzoli & Gini, 2010).

As for gender differences in cyberbullying behavior and moral disengagement, evidence is little and inconclusive (Lo Cricchio et al., 2021). Three studies that considered the role of gender in bullying perpetration behavior and moral disengagement each had different findings.

Current Study

With all that has been summarized, the current study answered four research questions: 1. What is the factor structure of the Moral Disengagement and Bullying Scale? 2. What is the evidence of reliability of the Moral Disengagement and Bullying Scale? 3. What is the evidence of validity of the Moral Disengagement and Bullying Scale? and 4. Are there gender differences in moral disengagement measured via the Moral Disengagement and Bullying Scale?

Research Questions and Predictions

The following research questions were examined in the present study:

Question 1: What is the factor structure of the Moral Disengagement and Bullying Scale?

Prediction 1: The items in the Moral Disengagement and Bullying Scale will load on either eight or four unique factors.
Bandura’s moral disengagement measure contained eight mechanisms (Moral Justification, Advantageous Comparison, Diffusion of Blame, Displacement of Blame, Euphemistic Language, Attribution of Blame, Dehumanization, and Distorting Consequences). The items from the Moral Disengagement and Bullying Scale were developed reflecting these eight distinct mechanisms. Only a handful of recent studies used the eight moral disengagement mechanisms of Bandura’s measure (Bjärehed et al., 2019; Wang et al., 2019; Zych & Llorent, 2019). Others have grouped the eight moral disengagement mechanisms into four broad categories (Hymel et al., 2005). Three mechanisms (Moral Justification, Advantageous Comparison, and Euphemistic Language) are grouped together as Cognitive Restructuring. The second mechanism involves Minimizing One’s Agentive Role, which can be achieved by Diffusion of Responsibility and Displacement of Responsibility. Distorting Consequences is in its own group as Misrepresenting Injurious Consequences, and finally, Blaming the Victim involves Dehumanization or Attribution of Blame. Gini and colleagues (2014), in their meta-analysis found that studies on moral disengagement may benefit from look beyond moral disengagement as a unidimensional construct and examining whether the behaviors are impacted by specific strategies to act on their behaviors (e.g., advantageous comparison vs. using euphemistic language).

Question 2: What is the evidence of reliability of the Moral Disengagement and Bullying Scale?

Prediction 2: The Moral Disengagement and Bullying Scale will have evidence of good reliability.
Previous measures of moral disengagement in relation to (cyber)bullying have indicated high internal consistency with one-factor loadings (Bussey et al., 2015; Hymel et al., 2014; Thornberg & Jungert, 2014). However, these measures were unable to produce a measure with more factors that had high internal consistency. With more items added to represent each mechanism, the Moral Disengagement and Bullying Scale will show high internal consistency when examined as a four- or eight-factor measure.

Question 3: What is the evidence of validity of the Moral Disengagement and Bullying Scale?

Prediction 3A: The Moral Disengagement and Bullying Scale will be significantly and positively related to Bandura’s moral disengagement scale.

Prediction 3B: Factors from the Moral Disengagement and Bullying Scale will be significantly and positively related to cyberbullying perpetration behavior.

Bandura’s 32-item scale measuring eight moral disengagement mechanisms on aggression is the most widely accepted scale to measure moral disengagement across countries (Gini et al., 2014). Hence, it was predicted that Bandura’s scale will have a high correlation with the Moral Disengagement and Bullying Scale developed in the current study that measures the same construct of moral disengagement.

As there is a strong association between bullying perpetration behavior with moral disengagement (Caravita et al., 2012; Gini, 2006; Menesini et al., 2003; Obermann, 2011; Pornari & Wood, 2010; Thornberg & Jungert, 2013), it was expected that higher levels of moral disengagement indicated by the Moral Disengagement and Bullying Scale would be positively associated with cyberbullying perpetration behavior.
Question 4: Are there gender differences in moral disengagement measured via the Moral Disengagement and Bullying Scale?

Prediction 4: Boys will have higher moral disengagement levels compared to girls.

The literature consistently found that moral disengagement is related to gender differences, in which boys compared to girls displayed higher levels of moral disengagement (Almeida et al., 2010; Barchia & Bussey, 2010; Obermann, 2011; Perren & Gutzwiller-Helfenfinger, 2012; Thornberg & Jungert, 2013). In terms of each mechanism of moral disengagement, Thornberg and Jungert (2014) found gender differences in their measure of moral disengagement, with boys expressing significantly higher levels of total moral disengagement, euphemistic labeling, diffusion of responsibility, distorting of consequences, and victim attribution. If the Moral Disengagement and Bullying Scale is measuring the construct of moral disengagement, this scale should also show gender differences, with males endorsing higher levels of moral disengagement than females.
CHAPTER 3

METHODOLOGY

Participants

The project included 426 undergraduate students from a midwestern university. One hundred sixty-six (39%) participants were male and 258 (60.6%) were female. Two participants (2%) indicated gender diverse. For analyses that included gender, these participants were categorized as missing data given the small sample size. The demographic characteristics for the participants are presented in Table 1. Due to clerical error, 112 participants were unable to provide their age.

Table 1.
Total Participant Characteristics

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</table>

Procedure

Approval to conduct this study was obtained from the Institutional Review Board (IRB) of Northern Illinois University. Undergraduates participated in an online survey via Qualtrics
and received credit for the psychology courses. The survey provided students with essential information and were asked whether or not they wished to participate in the research to confirm their assent. Participants completed all questionnaires including the cyberbullying and victimization scale and two moral disengagement scales in a counterbalanced order.

Measures

Measures in this study included the new measure, Moral Disengagement and Bullying Scale (MDBS), Bandura’s Moral Disengagement Scale (MDS; Bandura et al., 1996) and the Cyberbullying and Victimization Survey (CBVS; Brown, 2014) to measure online bullying perpetration behavior. The new measure is an additional measure of moral disengagement that was developed as part of the study particularly pertaining to moral disengagement questions containing bully situations. The study also collected student demographics including race, ethnicity, age, grade, and gender.

Moral Disengagement and Bullying Scale

A new measure of moral disengagement scale was created to measure specifically bullying. The aim of the measure was to produce an eight-factor subscale representing each of the mechanisms of moral disengagement or a four-factor subscale representing the four categories that each mechanism is classified under. Each mechanism contained eight or more items because the initial item pool should contain more items than in the final scale that is to be developed (Tay & Jebb, 2017). The original item pool consisted of 71 newly developed items and 17 items that were adapted from other measures. Items were adapted from both the original Moral Disengagement
Scale by Bandura and the Moral Disengagement in Bullying Scale developed by others (Allison & Bussey, 2017; Day & Lazuras, 2016; Morris & Copes, 2012; Ribeaud & Eisner, 2010).

The original items were developed by the researcher with the help of five graduate lab assistants and two professors who are experts in bullying research. The items under each mechanism included items related to cyberbullying, items representing four common types of bullying (spreading rumors, calling names, exclusion, physical bullying), and bullying in broad terms. After creating the list of items, a second revision using a Qualtrics survey determined the items most relevant to their respective mechanisms. In total, an 88-item, eight-subscale (averaging 10 to 11 items per mechanism) measure was created. Please see Appendix B for the survey protocol. Similar to the Moral Disengagement Scale, items were rated on a 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). Before scoring the Moral Disengagement and Bullying Scale, the points were reversed so that a score of 5 represented high levels of moral disengagement and 1 represented low levels of moral disengagement. The mean score for all the items was obtained to calculate the total moral disengagement score.

Moral Disengagement Scale

Bandura et al.’s (1996) Mechanism of Moral Disengagement Scale (MDS) was presented to the participants. The initial scale is a set of 32 items to cover the eight MD mechanisms. Each of the eight mechanisms of moral disengagement is represented by a subset of four items. Bandura also included five transgressive activities, including physically injurious and destructive conduct, verbal abuse, deceptions and thefts. Items are rated on a 3-point scale for their degree of acceptance of moral actions on a agree/disagree continuum. The current study determined that a
3-point scale is insufficient for reliable and valid results and instead assessed on a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). For analysis, the points on the Likert scale were reversed similar to the MDBS, such that higher scores signify higher levels of moral disengagement (i.e., 1=strongly disagree, 5=strongly agree). Factor analysis of this scale indicates a one-factor structure which accounted for 16.2% of the variance. Evidence of good reliability has been indicated in the same study with a composite measure of moral disengagement (α=.82; Bandura et al., 1996). Bandura et al.’s study (1996) also reported reliability and generalizability of the association between moral disengagement and aggressive/delinquent behaviors, with each correlation significant beyond the .0001 level. Please find the survey protocol in Appendix A. To obtain scores for level of moral disengagement, the mean score of the total moral disengagement was obtained.

Cyberbullying and Victimization Survey

The Cyberbullying and Victimization Survey (CBVS; Brown, 2014) was delivered to participants to ask questions about the times the participants have been bullied or bullied others online or electronically in the last two to three months. The CBVS is a 25-item measure that assesses online bullying and victimization. The items are rated on a 5-point Likert scale (1=it hasn’t happened at all in the past couple of months; 2=only 1 or 2 times in the past couple of months; 3= 2 or 3 times a month; 4= about once a week; 5=several times a week) indicating how often the participant participated or experienced the situations described by the items over the last 2 to 3 months. This measure correlated significantly with Hinduja and Patchin’s (2008) Cyberbullying and Online Aggression Survey instrument (.589, p<.01) and Kowalski and Limber’s (2007) Cyberbullying measure (.523, p<.01), indicating evidence of validity. The CBVS
has high internal consistency of .856 for the cyberbullying behaviors and .938 for cybervictimization. In the current study, only the scores of the cyberbullying perpetration items were considered. The cyberbullying perpetration measure consists of two factors: low-intensity and high-intensity bullying perpetration. Only the low-intensity items (6 items) were used to increase reliability of the measure. The fit indexes from a confirmatory factor analysis on the six items were adequate ($X^2 = 202.92, df=15, p<.001; \text{RMSEA}=0.056 \ [90\% \ CI \ 0.044, \ 0.068], \text{SRMR}=0.054, \text{CFI}=0.941, \text{TLI}=0.901$). The internal consistency for the items was .90.

Data Analysis Plan

Question 1:
What is the factor structure of the Moral Disengagement and Bullying Scale?

To examine the factor structure of the new scale, items were tested through an exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) using the R software. The current study examined the number of factors a priori based on Bandura’s eight moral mechanisms (moral justification, advantageous comparison, diffusion of responsibility, displacement of responsibility, dehumanization, victim attribution, distorting consequences, and euphemistic language) or based on Bandura’s four categories (cognitive restructuring, minimizing agency, distortion of negative consequences, and blaming/dehumanizing the victim). As the new Moral Disengagement and Bullying measure was developed from Bandura’s original Moral Disengagement Scale, the new measure was to be more developed and expected fewer and smaller cross-loadings. According to Schmitt and Sass (2011), for a more developed measure, it is suggested that a goemin rotation is better suited to produce a cleaner factor structure.
Correlations between the new moral disengagement and bullying measure and Bandura’s moral disengagement were also conducted along with determining the measure’s internal consistency.

Question 2:
What is the evidence of reliability of the Moral Disengagement and Bullying Scale?

To prove evidence of reliability, the internal consistency of the subscales of the Moral Disengagement and Bullying Scale was examined based on the decision made on the factor solution of Question 1.

Question 3:
What is the evidence of validity of the Moral Disengagement and Bullying Scale?

To prove evidence of validity, correlations were run between Bandura’s Moral Disengagement Scale and the new Moral Disengagement and Bullying Scale. Additionally, correlations between moral disengagement and cyberbullying perpetration were examined. These analyses were examined using the SPSS program.

Question 4:
Are there gender differences in moral disengagement measured via the Moral Disengagement and Bullying Scale?

One ANOVA by gender was conducted on the total score of the Moral Disengagement and Bullying Scale to determine if there were gender differences in the levels of moral disengagement. All participants indicated their gender with no missing values. At the item level, 10.3% items of the Moral Disengagement and Bullying Scale contained missing values from the
total number of responses. Mean total scores for each participant were only calculated if participants completed at least 80% of the items on each of the questionnaires. Four participants’ scores from Bandura’s scale (0.94%), 16 participants’ scores from the Cyberbullying and Victimization Survey (3.75%), and 3 participants’ scores from MDBS (0.7%) were not calculated because the 80% non-missing data criterion was not met.
CHAPTER 4

RESULTS

Question 1: What is the factor structure of Moral Disengagement and Bullying Scale (MDBS)?

Before conducting a factor analysis on the current data, the sample was randomly divided in half so that an exploratory factor analysis could be conducted on one half (EFA; n = 205, 45.0% female) and confirmatory factor analysis conducted on the other half (CFA; n = 221, 55.0% female). Levene’s test for equality of variances was conducted to examine the equal distribution of age among the two groups. The variance for the two groups was significantly different (sig. < .05; t = 1.747; df = 423.876) and equal variances were not assumed. Furthermore, the results indicated that there was no significant difference between the two groups in levels of moral disengagement based on age, t (424) = 1.747, p = .081. Average moral disengagement scores of Group 1 (M = 4.35, SD = .83) were not significantly different from that of Group 2 (M = 4.43, SD = .75). Chi-square test of differences suggested the two groups did not differ by gender (p = .269) or race/ethnicity (p = .114).

**EFA Group 1.** An EFA was conducted on the first half of the college sample using R 4.0.4. Item descriptives indicated a mean score of 4.35 and a standard deviation of 0.83. Score distribution was examined to remove items with high skewness and kurtosis. These items are not presented due to space constraints; however, items retained after factor analysis are presented later. Fourteen items were significantly skewed and leptokurtic according to Curran, West, and Finch’s
(1996) suggestions: univariate values that are $\geq \pm 2.0$ for skewness and $\geq \pm 7.0$ for kurtosis was determined as suspect. Additionally, potential nonnormality of multivariate skewness and kurtosis were tested using Mardia’s measures (Mardia, 1970). Mardia’s coefficient was significant, suggesting that the items had nonnormal distribution.

The appropriateness of the measure for a factor analysis was examined after examining the distribution of the data. The results from Bartlett’s test of sphericity (Bartlett, 1954) indicated the correlation matrix diverged significantly from the identity matrix ($\chi^2 (205) = 17110.53; df = 3828; p < .001$). The Kaiser-Meyer-Olkin (KMO; Kaiser, 1974) measure of sampling adequacy indicated a score of .97 for the overall measure. According to Kline (1994), values over .90 are considered “marvelous.” Given these results, the correlation matrix was appropriate for factor analysis.

An EFA was conducted using principal axis factoring and a geomin rotation was applied to the extracted factors to aid interpretability. The parallel analysis (PA; Horn, 1965) method suggested that no more than four factors should be extracted from the sample data. However, when four factors were extracted, 54 items loaded onto the first factor and 44 items demonstrated salient cross-loadings on more than one factor according to Schmitt and Sass’s (2011) cut off $\geq .20$. Additionally, 21 items that loaded onto the other three factors did not load in their respective intended factors. For example, items representing victim attribution (dehumanization and attribution of blame) loaded on Factor 1 as well as Factor, and Factor 3 additionally included items related to displacement of responsibility. Factor 2 included a large portion of items representing moral justification but also contained items that are categorized separately according to theory (i.e., dehumanization, displacement of responsibility, distorting consequences).
Similarly, extraction of a three-factor solution and a two-factor solution resulted in items loading mostly on one latent factor. Given statistical and conceptual considerations, it was determined that a single-factor model offered the best fit.

After determining that a one-factor model was most appropriate, a systematic and iterative process of repeated EFA procedures and item analyses took place. Initially, five items with the highest factor loadings were retained within each moral disengagement mechanism (moral justification, euphemistic labeling, advantageous comparison, displacement of responsibility, diffusion of responsibility, attribution of blame, dehumanization, distorting consequences). The loadings for the 40 items ranged from .34 to .84. To determine the best model fit, several criteria were used, including comparative fit index (CFI; Bentler, 1990), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA; Steiger & Lind, 1980), and standardized root mean square residual (SRMR; Hu & Bentler, 1999). Hu and Bentler (1999) recommends CFI and TLI ≥ 0.90 and RMSEA and SRMR ≤ 0.08 as evidence of adequate model fit. RMSEA and SRMR ≤ 0.06 and CFI and TLI ≥ 0.95 are considered evidence of good model fit. The 40-item model did not meet the standards for adequate model fit (CFI = .791, TLI=.780, RMSEA=.098, SRMR=.061).

Repeated processes of examining the highest four- to two-factor loadings of each mechanism revealed that they had poor fit as well. To increase the fit of the model even more, items that measured moral disengagement of cyberbullying behaviors were removed to focus on traditional bullying.

Upon close inspection of the correlation matrix using the “cor” function in R that specifies Pearson correlation coefficients, two items (Items 73, 75) representing the dehumanization mechanism correlated poorly with the rest of the items. Due to the low factor
loadings and low communality of several dehumanization items, a decision was made to combine dehumanization items with attribution of blame items to represent victim attribution.

The final model contained 14 items, with each mechanism reflected by two items and one item each for dehumanization and attribution of blame. See Table 2 for descriptive statistics for the final measure. Table 3 reviews the factor loadings of the EFA sample for the MDBS. Different types of bullying were included throughout the measure, including relational bullying (i.e., intentional exclusion and name calling) and physical aggression. Inspection of the criteria of the model fit determined an adequate fit, $n=205$, $\chi^2 (91)= 1024.68$, $p=0.00$, $CFI = 0.93$, $TLI = 0.91$, $RMSEA = 0.075$, 90% CI [0.064-0.087], $SRMR = 0.044$. Saliency of the items were suggested by Stevens (2002) to have a standard loading greater than 0.40; the factor loadings of the items from this model ranged from 0.69 to 0.85. Communality of the items was also adequate with 0.71 as the highest estimate and 0.48 as the lowest.

**CFA Group 2.** The underlying structure identified in the final 14-item measure with the EFA sample was confirmed with the second half of the data. The measure’s $\chi^2$ was significant due to the large sample size, hence other criteria of model fit were given more weight. The one-factor model demonstrated a good fit to the data as evidenced by (a) comparative fit index (Bentler, 1990) of 0.99, (b) Tucker-Lewis index (Tucker & Lewis, 1973) of .98, (c) root mean square error of approximation (Steiger & Lind, 1980) of 0.05, and (d) standardized root mean square residual (Hu & Bentler, 1999) of 0.03. $CFI \geq 0.90$ is considered evidence of adequate model fit and $CFI \geq 0.95$ is considered evidence of good model fit. $RMSEA \leq 0.05$ is considered evidence of good model fit and $SRMR \leq 0.08$ is considered evidence of good model fit. The descriptive statistics and the factor loadings of the CFA sample are presented in Tables 2 and 3. Table 4 shows the correlations among the 14 items of the MDBS, with the CFA group indicated.
above and the EFA group indicated below. Inter-item correlations for the CFA sample ranged from 0.57 to 0.78 ($M=0.68$) and the EFA sample ranged from 0.49 to 0.79 ($M=0.64$).

Table 2

*Descriptive Statistics for Moral Disengagement and Bullying Scale Items EFA (n=205) and CFA (n=221)*

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>EFA</th>
<th></th>
<th>CFA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Skew</td>
<td>Kurtosis</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>1. It's okay to join in when someone you don't like is being bullied.</td>
<td>4.37 (0.89)</td>
<td>-1.60</td>
<td>2.46</td>
<td>4.50 (0.79)</td>
</tr>
<tr>
<td>2. Bullying can be a good way to solve problems.</td>
<td>4.47 (0.82)</td>
<td>-1.84</td>
<td>3.84</td>
<td>4.62 (0.66)</td>
</tr>
<tr>
<td>3. Saying bad things about other people in front of them doesn't hurt anyone.</td>
<td>4.53 (0.70)</td>
<td>-1.65</td>
<td>3.32</td>
<td>4.57 (0.66)</td>
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<tr>
<td>4. Getting bullied in school is not a big deal.</td>
<td>4.50 (0.78)</td>
<td>-1.94</td>
<td>4.41</td>
<td>4.60 (0.65)</td>
</tr>
<tr>
<td>5. If a group decides to bully someone, it's unfair to blame just one person in the group for bullying.</td>
<td>4.48 (0.77)</td>
<td>-1.82</td>
<td>4.05</td>
<td>4.63 (0.60)</td>
</tr>
<tr>
<td>6. It's okay to call someone names if you see everyone else is doing it too.</td>
<td>4.50 (0.74)</td>
<td>-1.76</td>
<td>4.04</td>
<td>4.58 (0.60)</td>
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</table>

(Continued on following page)

Table 2 (continued)

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<th>Descriptive Statistics</th>
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<th>CFA</th>
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<tr>
<td></td>
<td>Mean (SD)</td>
<td>Skew</td>
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<tr>
<td>7. A person who hits others is just &quot;being tough&quot;.</td>
<td>4.39 (0.78)</td>
<td>-1.29</td>
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<tr>
<td>8. Leaving someone out from a group is just &quot;teasing&quot;, nothing more.</td>
<td>4.47 (0.78)</td>
<td>-1.83</td>
</tr>
<tr>
<td>9. It's okay to trip someone in the hallway when you know there are others who punch people in the face.</td>
<td>4.48 (0.75)</td>
<td>-1.74</td>
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<tr>
<td>10. It's okay to watch someone being bullied because doing the bullying is worse.</td>
<td>4.56 (0.69)</td>
<td>-1.81</td>
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<tr>
<td>11. A person should not be blamed for bullying others if they have seen others do it.</td>
<td>4.49 (0.66)</td>
<td>-1.02</td>
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<td>12. If a person doesn't get in trouble they should not be blamed for calling others names.</td>
<td>4.47 (0.70)</td>
<td>-1.44</td>
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<td>13. Some people deserve to be treated like animals.</td>
<td>4.57 (0.69)</td>
<td>-1.83</td>
</tr>
<tr>
<td>14. If a person feels left out, it's their fault for not clicking with the group.</td>
<td>4.57 (0.70)</td>
<td>-1.92</td>
</tr>
</tbody>
</table>

### Table 3

**Factor Loadings for the Moral Disengagement and Bullying Scale EFA (n = 205) and CFA (n=221)**

<table>
<thead>
<tr>
<th>Item</th>
<th>EFA</th>
<th>CFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It's okay to join in when someone you don't like is being bullied.</td>
<td>0.763</td>
<td>0.78</td>
</tr>
<tr>
<td>2. Bullying can be a good way to solve problems.</td>
<td>0.693</td>
<td>0.73</td>
</tr>
<tr>
<td>3. Saying bad things about other people in front of them doesn't hurt anyone.</td>
<td>0.845</td>
<td>0.879</td>
</tr>
<tr>
<td>4. Getting bullied in school is not a big deal.</td>
<td>0.822</td>
<td>0.848</td>
</tr>
<tr>
<td>5. If a group decides to bully someone, it's unfair to blame just one person in the group for bullying.</td>
<td>0.823</td>
<td>0.859</td>
</tr>
<tr>
<td>6. It's okay to call someone names if you see everyone else is doing it too.</td>
<td>0.845</td>
<td>0.861</td>
</tr>
<tr>
<td>7. A person who hits others is just &quot;being tough&quot;.</td>
<td>0.781</td>
<td>0.804</td>
</tr>
<tr>
<td>8. Leaving someone out from a group is just &quot;teasing&quot;, nothing more.</td>
<td>0.835</td>
<td>0.842</td>
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<td>9. It's okay to trip someone in the hallway when you know there are others who punch people in the face.</td>
<td>0.842</td>
<td>0.828</td>
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<tr>
<td>10. It's okay to watch someone being bullied because doing the bullying is worse.</td>
<td>0.836</td>
<td>0.85</td>
</tr>
<tr>
<td>11. A person should not be blamed for bullying others if they have seen others do it.</td>
<td>0.777</td>
<td>0.801</td>
</tr>
<tr>
<td>12. If a person doesn't get in trouble they should not be blamed for calling others names.</td>
<td>0.762</td>
<td>0.842</td>
</tr>
<tr>
<td>13. Some people deserve to be treated like animals.</td>
<td>0.823</td>
<td>0.845</td>
</tr>
<tr>
<td>14. If a person feels left out, it's their fault for not clicking with the group.</td>
<td>0.748</td>
<td>0.831</td>
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Table 4

Correlations Among Moral Disengagement and Bullying Scale Items EFA (n=205) and CFA (n=221)

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<td>-</td>
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<td>0.70</td>
<td>0.72</td>
<td>0.66</td>
</tr>
<tr>
<td>Item 10</td>
<td>0.64</td>
<td>0.56</td>
<td>0.72</td>
<td>0.64</td>
<td>0.66</td>
<td>0.71</td>
<td>0.63</td>
<td>0.68</td>
<td>0.79</td>
<td>-</td>
<td>0.71</td>
<td>0.74</td>
<td>0.76</td>
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<tr>
<td>Item 11</td>
<td>0.59</td>
<td>0.51</td>
<td>0.64</td>
<td>0.59</td>
<td>0.61</td>
<td>0.64</td>
<td>0.59</td>
<td>0.67</td>
<td>0.67</td>
<td>0.68</td>
<td>-</td>
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<tr>
<td>Item 12</td>
<td>0.56</td>
<td>0.50</td>
<td>0.63</td>
<td>0.60</td>
<td>0.63</td>
<td>0.63</td>
<td>0.60</td>
<td>0.60</td>
<td>0.63</td>
<td>0.64</td>
<td>0.66</td>
<td>-</td>
<td>0.68</td>
<td>0.66</td>
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<tr>
<td>Item 13</td>
<td>0.62</td>
<td>0.52</td>
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<td>0.71</td>
<td>0.66</td>
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<td>0.65</td>
<td>-</td>
<td>0.73</td>
</tr>
<tr>
<td>Item 14</td>
<td>0.56</td>
<td>0.49</td>
<td>0.61</td>
<td>0.63</td>
<td>0.61</td>
<td>0.56</td>
<td>0.59</td>
<td>0.62</td>
<td>0.63</td>
<td>0.63</td>
<td>0.62</td>
<td>0.61</td>
<td>0.65</td>
<td>-</td>
</tr>
</tbody>
</table>
Question 2: What is the evidence of reliability of the Moral Disengagement and Bullying Scale?

Reliability of MDBS was examined by the internal consistency of the items. Cronbach’s alpha of the one-factor model was examined in the EFA group as well as the CFA group. The Cronbach’s alpha for MDBS was 0.98, indicating excellent internal consistency reliability for the EFA sample. Cronbach’s alpha for the CFA sample was 0.97, indicating excellent internal consistency reliability. Internal consistency reliability by gender for the EFA group was 0.93 for men and 0.97 for women. For the CFA group, Cronbach’s alpha for men was 0.97 and 0.96 for women.

Question 3: What is the evidence of validity of the Moral Disengagement and Bullying Scale?

To examine the validity of the MDBS, the total sample was examined as a whole. Multiple regression was performed on the total sample to determine the degree to which gender and frequency of bullying perpetration significantly predicted moral disengagement scores (Table 5). One hierarchical regression analysis with Moral Disengagement and Gender was entered in Step 1. Moral Disengagement by Gender interaction was entered in Step 2 with a dependent variable of Cyberbullying.

Step 1 of the regression was significant, $R^2 = 0.0989, p < .001$, $F(2, 404) = 19.84, p < .001$. Step 2 did not account for significantly more variance than Step 1, $R^2 = 0.090, p = .556$, $F(3, 403) = 13.31, p < .001$. In Step 1, Moral Disengagement was significantly and positively associated with Cyberbullying, $\beta = 0.215$, $SE = .042$, $p < .001$. These results further validate the
measure as the literature has demonstrated a consistent positive association between Moral Disengagement and Cyberbullying perpetration (Kowalski et al., 2014). Additionally, Gender was significantly and negatively associated with Cyberbullying, $\beta = -.140, SE=.048, p =.004$, meaning men engaged in cyberbullying behaviors more often than women. See Table 6 for a summary of the regression analysis.

Table 5

Means and Standard Deviations of Main Variables by Gender

<table>
<thead>
<tr>
<th></th>
<th>MDBS</th>
<th>Bandura MD</th>
<th>Cyberbullying</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td>Men</td>
<td>1.56</td>
<td>0.578</td>
<td>1.91</td>
</tr>
<tr>
<td>Women</td>
<td>1.40</td>
<td>0.56</td>
<td>2.02</td>
</tr>
<tr>
<td>Total</td>
<td>1.46</td>
<td>0.566</td>
<td>1.830</td>
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</tbody>
</table>

Note. MDBS = Moral Disengagement and Bullying Scale; Bandura MD = Bandura’s Mechanism of Moral Disengagement Scale
Table 6

Summary of Regression Analyses for Moral Disengagement and Cyberbullying Perpetration

Behavior

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>SE</th>
<th>β</th>
<th>β</th>
<th>P</th>
<th>R²</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyberbullying Perpetration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender**</td>
<td></td>
<td>-1.40</td>
<td>.048</td>
<td>.004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moral Disengagement***</td>
<td>.215</td>
<td>.042</td>
<td>&lt;.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>-.212</td>
<td>.135</td>
<td>.117</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moral Disengagement</td>
<td>.139</td>
<td>.139</td>
<td>.320</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moral Disengagement x Gender</td>
<td>.048</td>
<td>.084</td>
<td>.566</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05*, *p < .01**, *p < .001***

To examine the validity of the Moral Disengagement and Bullying Scale (MDBS), correlations were run between the MDBS (n=423, M=1.46, SD=.57) and Bandura’s (1996) Mechanisms of Moral Disengagement Scale (n=422, M=1.91, SD=.59). Based on n=419
observations, the correlation between the two was .751, which was significant at the \( p < .01 \) level. When examining the correlation between Bandura’s scale and the MDBS separately by gender, the correlation was .702 for men and .781 for women, both of which were significant at the \( p < .01 \) level. Correlations were run between MDBS and cyberbullying perpetrator (\( n=410, M=1.16, SD=.50 \)) as well. The correlation between the two was .266, which was significant at the \( p < .01 \) level. When examining the correlation by gender, correlation was higher among women (.372) compared to men (.170). Finally, the correlation between Bandura’s measure and cyberbullying perpetration resulted in a significant correlation (.199) at the \( p < .01 \) level. Table 7 is an overview of the correlations. According to the correlation \( r \) to \( Z \) transformation, the correlation between MDBS and cyberbullying was significantly higher than the correlation between Bandura’s scale and cyberbullying (\( z=10.51, p<0.05 \)).

**Table 7**

*Intercorrelations Among All Key Study Variables by Gender*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MDBS</td>
<td>--</td>
<td>.702**</td>
<td>.170*</td>
</tr>
<tr>
<td>2. Bandura MD</td>
<td>.781**</td>
<td>--</td>
<td>.151</td>
</tr>
<tr>
<td>3. Cyberbullying</td>
<td>.372**</td>
<td>.229**</td>
<td>--</td>
</tr>
</tbody>
</table>

\( p < .05* , p < .01** 

*Note.* Values above the diagonal are for men and values below are for women.
Question 4: Are there gender differences in moral disengagement measured via the Moral Disengagement and Bullying Scale?

**Regression analyses.** Gender differences in moral disengagement were investigated. An ANOVA was conducted on the total moral disengagement score by gender. There was a significant effect of gender on moral disengagement, $F(1, 419) = .746, p = .006$. Men ($n = 166, M = 1.56, SD = .578$) and women ($n = 255, M = 1.4, SD = .552$) were significantly different in their levels of moral disengagement, with higher levels of moral disengagement among men. This supports previous findings indicating that moral disengagement has been found to be higher in men when compared with women (Obermann, 2011).
CHAPTER 5
DISCUSSION

Bullying research made use of Bandura’s Moral Disengagement Scale to understand the cognitive processes of individuals involved in bullying behavior. As bullying is a form of aggressive behavior, moral disengagement explains an individual's ability to prevent the activation of self-sanction to commit harmful deeds. Bandura’s original scale measures moral disengagement for general aggression, such as vandalism, stealing, and fighting. The goals of the current study were to develop a measure based on the eight mechanisms of moral disengagement addressed in the bullying setting, to examine its psychometric properties, and to investigate gender differences in moral disengagement using the new measure.

Main Study Predictions

Factor Structure of the Moral Disengagement and Bullying Scale

The first goal of the study was to examine the factor structure of the new measure, the Moral Disengagement and Bullying Scale (MDBS). When developing the Moral Disengagement and Bullying Scale (MDBS), the eight unique mechanisms of moral disengagement described by Bandura were kept in mind. Exploratory and confirmatory factor analyses were performed to evaluate the structural validity of the measure. The results of EFA supported a single-factor structure and the measure was confirmed conducting a CFA on the second half of the data, which demonstrated a good fit. Unlike the prediction that the moral disengagement mechanisms would
be distinguished as eight or four factors, a single-factor model proved to be the best fit for the new measure. This was unsurprising, as Bandura’s 32-item moral disengagement measure also did not result in any subfactors when it was developed and had a single-factor structure (Bandura, 1996). While Bandura intended his measure to represent eight distinct moral disengagement mechanisms, several studies have taken a unidimensional approach to Bandura’s Moral Disengagement Scale. Obermann (2011) conducted a CFA on the Danish version of Bandura’s Moral Disengagement Scale. The CFA resulted in a one-factor structure with a reasonable fit ($\chi^2(464) = 1,671.72, P = .000$, RMSEA = 0.067, 90% CI [0.064-.070], CFI = .85, SRMR = .88). Gini (2006) used a moral disengagement scale developed by Caprara et al. (1995), which is a 14-item measure on moral disengagement designed for primary-school children. Gini and other researchers (Caprara et al., 1995; Menesini et al., 1997) also used the scale as a unidimensional structure instead of distinguishing separate subscales based on the mechanisms. Furthermore, Hymel et al. (2005), in developing a moral disengagement measure specifically for bullying situations, found their items loaded on a single-factor instead of the four conceptual categories Bandura described. As other studies have found a single-factor structure for their moral disengagement measure, the single-factor structure was most fitting for MDBS.

Unlike Bandura’s measure that addresses general aggression, MDBS directly asked individuals about their justification and rationalization for bullying behavior. After deciding on a single-factor structure, items were removed based on low factor loadings and through conceptual decisions, such as the removal of items referring to cyberbullying and the decision to combine two mechanisms (attribution of blame and dehumanization). The final measure included 14 items
reflecting moral disengagement mechanisms in a unidimensional structure that included various forms of bullying (i.e., name calling, intentional exclusion, hitting).

**Psychometric Properties of the Moral Disengagement and Bullying Scale**

Goals to examine the reliability and validity of the MDBS were important to address, as future studies will need a psychometrically sound measure to gauge the role of moral disengagement in understanding and intervening in bullying behaviors. When the items on the MDBS were being developed, items related to dehumanization were particularly difficult to formulate. Bandura described dehumanization as stripping of human-like qualities or viewing individuals as low animal forms (Bandura, 2012). The dehumanization items developed for the MDBS were particularly low in loadings and correlated poorly with other items in the measure. A decision was made to combine dehumanization items with attribution of blame, as they are in the same category. Interestingly, Thornberg and Jungert (2014) made a similar decision to combine these two mechanisms in their measure, perhaps reflecting the difficult nature of measuring the use of dehumanization strategies. Removing items related to cyberbullying was another decision made to increase the psychometric properties of the MDBS, not to mention other studies that have already developed moral disengagement scales for cyberbullying (Bussey et al., 2015; Day & Lazuras, 2016).

The MDBS was reliable as evidenced by the excellent internal consistency of both the EFA and CFA groups (alpha was .98 for EFA and .97 for CFA). Even when examined separately by gender, both groups showed high levels of alpha. In comparison, Thornberg and Jungert’s General Moral Disengagement had a Cronbach’s alpha of .84 and Hymel’s 13-item total Moral
Disengagement Scale had a coefficient alpha of .81. While high alpha values are desired, alpha values that are too high can reflect item redundancies. To increase the reliability of the measure, other types of reliability, such as test-retest, are warranted for future research.

Correlations between the MDBS and Bandura’s measure, an established measure of moral disengagement, were examined to address evidence of validity. As predicted, MDBS was significantly and positively related to Bandura’s Moral Disengagement Scale, suggesting that both measure the same construct of moral disengagement. Correlation between MDBS and cyberbullying as well as between Bandura’s measure and cyberbullying were examined. When correlation between MDBS and cyberbullying and correlation between Bandura’s measure and cyberbullying were compared, MDBS was significantly correlated higher with cyberbullying than Bandura’s measure. While MDBS and Bandura’s measure were highly correlated, this finding supported the discriminant validity of MDBS with Bandura’s measure.

Further evidence of validity included regression analyses of moral disengagement, gender, and cyberbullying perpetration behavior. Similar to previous research on the theory of moral disengagement and bullying, moral disengagement in the current study was positively associated with cyberbullying behavior (Lo Cricchio et al., 2021; Pornari & Wood, 2010). This reiterates the social cognitive theory that individuals who commit harmful acts are exercising their moral disengagement strategies to bypass their moral standards.

Furthermore, the current study found gender differences in the levels of moral disengagement, aligning with other studies that found boys exhibit higher levels of moral disengagement compared to girls (Barchia & Bussey, 2010; Obermann, 2011). Likewise,
cyberbullying perpetration behavior was higher among men compared to women, which according to a meta-analysis by Sun, Fan, and Du (2016) is the expected results in the literature. Bandura et al. (1996) theorized that gender differences in aggressive behaviors may reside in how men have a stronger inclination to disengage from harmful actions. Despite these gender distinctions for moral disengagement and cyberbullying perpetration, when the association between moral disengagement and bullying was examined by gender, the results were not significant. Whether the association between moral disengagement and cyberbullying varies across gender remains unknown from the results of the current study. This finding reflects the unclear role of gender in the relation between moral disengagement and bullying (Gini et al., 2014). Gini et al. (2014) explained that the lack of gender difference in the relation between bullying and moral disengagement should be viewed with caution, as gender differences may change depending on age levels. It would be interesting to see in future research whether the gender distinction is evident among youth as compared to college-age individuals.

The surveys that were given to participants were all self-reported surveys. While self-report method is a relatively simple and quick way to collect data, self-report can threaten the validity and reliability of the measures. Particularly as the measures used in this study are assessing undesirable behaviors such as bullying others, respondents are susceptible to social desirability bias. Social desirability bias is when responders answer the items untruthfully so they can provide a socially appropriate response (DeVellis, 2003). Despite the current study to reduce social desirability effect to indicate the anonymity of the surveys, when examining the total overall mean scores for the Cyberbullying and Victimization Survey ($M=1.16$), Bandura’s Moral Disengagement Scale ($M=1.91$), and the Moral Disengagement and Bullying Scale ($M=1.46$), it
is noticeable that the scores are skewed left. This means that most of the participants’ responses fell under *strongly disagree*/*it hasn’t happened at all in the past couple of months*. This is important to note as the significance of the study results are relative to the baseline of the participants’ responses. It might be important for future research to consider such limitations of self-report measures of moral disengagement and bullying behaviors and it may be interesting to also incorporate other methods (e.g., experiments and scenarios) to reduce social desirability bias.

### Study Limitations

Development of the moral disengagement and bullying scale came with several limitations. Participants who completed the survey were disproportionately female due to the convenience sampling of undergraduate psychology students. This may have altered the responses from representing both male and female students. Similarly, the measure was developed with a college-age sample; hence, the measure may not have the same reliability and validity when addressing other age groups. Another limitation to the new measure was how the Likert scale for the measure was reversed. The new measure had participants indicate 1 = *strongly agree* and 5 = *strongly disagree*, whereas the original measure presented the questionnaire with 1 = *strongly disagree* and 5 = *strongly agree*. The difference in the response order may have created unintentional bias depending on the ascending and descending order of the Likert scale choices and should be addressed in future research using this measure. Another improvement to the measure that should be added in future research is to incorporate a variable to assess the participants’ attention during the task. This is particularly important as participants will increasingly lose focus due to the length of the survey.
While the items from the MDBS were written carefully with the intent to represent various moral disengagement mechanisms and methods of bullying, they are not perfect. The participants may find some items difficult to comprehend as the wording of some items is complex. For example, the Item 12 (“If a person doesn't get in trouble they should not be blamed for calling others names.”) contains double negatives that may obscure what the question is asking. Another setback to the development of the MDBS is that, for the convenience of a different study, the MDBS was validated using the cyberbullying measure. When MDBS was initially formulated, the measure contained cyberbullying-related items. They were removed from the final set of items to increase the model fit of the measure. Hence, assessing traditional bullying involvement of participants will further strengthen the validity of the measure. Furthermore, the distribution of participant responses to the cyberbullying measure is another aspect of limitation worth noting. Many of the responses from the cyberbullying measure were answered as 1= Hasn’t happened at all in the past couple of months (M=1.01). This reflects the subjective nature of a self-assessment measure, which inclines individuals to underestimate their level of engagement in negative behaviors. The cyberbullying measure is not the only measure that may be subject to social desirability bias; overall levels of moral disengagement are low (M=1.46), with participants indicating strongly disagree to the moral disengagement items.

Implications

When considering how relevant the concept of moral disengagement has become in the bullying literature, a reliable and valid tool to assess such a concept is imperative. As the concept of moral disengagement originates from Bandura, his Moral Disengagement Scale has been applied in previous research. Presenting a new measure that focuses on the use of disengagement
mechanisms in bullying behaviors can be more applicable and relevant to studying youth engaging in bullying behaviors. For example, the MDBS considers relational bullying situations (e.g., “Leaving someone out from a group is just ‘teasing,’ nothing more”). This is not addressed in Bandura’s measure, as the measure mainly focuses on direct types of aggression rather than indirect behaviors. However indirect/relational bullying behaviors are as common and as serious as the more direct types and are worth including in the measure (Atlas & Pepler, 1998). Although further examination of the MDBS is necessary, the measure can contribute to our understanding of the role of moral disengagement in bullying. Interventions aimed to reduce bullying can use MDBS to assess the levels of moral disengagement in individuals and raise students’ awareness about moral disengagement mechanisms and by doing so help them recognize their thoughts and prevent their actions.

Future Research Directions

Future research should further refine and test the MDBS, including to address the limitations of the current study. To do so, the Likert-type responses need to be switched from descending to ascending, which corresponds to how Bandura’s measure was used. The MDBS was conducted on young adults, but the target age group is adolescents. If the measure is appropriate for the youth and demonstrates good psychometric properties, studies can expand the scope of research on moral disengagement and bullying. For example, the concepts of empathy and self-efficacy have been examined along with moral disengagement. Empathy has been found to have a negative association with moral disengagement, but studies describe this association as more complex (Almeida et al., 2009; Barriga et al., 2009; Haddock & Jimerson, 2017; Raboteg-Šaric & Bartaković 2019). A specific moral disengagement measure geared to the bullying
context can give new insights for examining other related factors such as empathy and self-efficacy in school settings.

Additionally, while the current study found a positive link between moral disengagement and cyberbullying perpetration behavior using the MDBS, it is important for future research to examine whether this remains true for traditional bullying perpetration behavior as well. Aside from bullying perpetration, research on moral disengagement has been done on other bully participant behaviors (e.g., Caravita et al., 2012; Obermann, 2011; Pozzoli et al., 2012). The relation between moral disengagement and other bullying behaviors using the MDBS may also be worth investigating. Particularly, it would be interesting to see if the specificity of the measure would yield different results in the associations compared to previous research using Bandura’s MDS.

Conclusions

The purpose of this study was to develop a psychometrically sound measure of moral disengagement designed specifically for bullying situations. Bandura claimed that moral disengagement consists of eight mechanisms that individuals use to disengage their moral reactions to harmful actions. The Moral Disengagement and Bullying Scale (MDBS) was designed with these eight mechanisms in mind, but the results from the exploratory factor analysis found the single-factor model to be the best fit. Despite the lack of support for an eight/four-factor model, the MDBS showed promising evidence of validity and reliability. This 14-item measure demonstrated excellent internal consistency for both exploratory factor analysis and confirmatory factor analysis groups. The positive correlation between MDBS and Bandura’s Moral
Disengagement Scale indicated evidence of validity. Relations among moral disengagement, cyberbullying perpetration behavior, and gender were examined as well. Men reported higher levels of moral disengagement as well as higher levels of cyber perpetration compared to women. As for gender differences in the association between moral disengagement and bullying, there were no significant findings. Moral disengagement was positively associated with cyberbullying perpetration behavior. Further research should examine not only traditional bullying perpetration behavior but also other bullying roles, such as the victim, assistant to the bully, defender of the victim, and outsider.
REFERENCES


APPENDIX A

MORAL DISENGAGEMENT SCALE
Mechanisms of Moral Disengagement

1. It is alright to fight to protect your friends.
2. Slapping and shoving someone is just a way of joking.
3. Damaging some property is no big deal when you consider that others are beating people up.
4. A kid in a gang should not be blamed for the trouble the gang causes.
5. If kids are living under bad conditions they cannot be blamed for behaving aggressively.
6. It is okay to tell small lies because they don't really do any harm.
7. Some people deserve to be treated like animals.
8. If kids fight and misbehave in school it is their teacher's fault.
9. It is alright to beat someone who had smashed your family.
10. To hit obnoxious classmates is just giving them "a lesson."
11. Stealing some money is not too serious compared to those who steal a lot of money.
12. A kid who only suggests breaking rules should not be blamed if other kids go ahead and do it.
13. If kids are not disciplined they should not be blamed for misbehaving.
14. Children do not mind being teased because it shows interest in them.
15. It is okay to treat badly somebody who behaved like a "worm."
16. If people are careless where they leave their things it is their own fault if they get stolen.
17. It is alright to fight when your group's honour is threatened.
18. Taking someone's bicycle without their permission is just "borrowing it."
19. It is okay to insult a classmate because beating him/her is worse.
20. If a group decides together to do something harmful it is unfair to blame any kid in the group for it.
21. Kids cannot be blamed for using bad words when all their friends do it.
22. Teasing someone does not really hurt them.
23. Someone who is obnoxious does not deserve to be treated like a human being.
24. Kids who get mistreated usually do things that deserve it.
25. It is alright to lie to keep your friends out of trouble.
26. It is not a bad thing to "get high" once in a while.
27. Compared to the illegal things people do, taking some things from a store without paying for them is not very serious.
28. It is unfair to blame a child who had only a small part in the harm caused by a group.
29. Kids cannot be blamed for misbehaving if their friends pressured them to do it.
30. Insults among children do not hurt anyone.
31. Some people have to be treated roughly because they lack feelings that can be hurt.
32. Children are not at fault for misbehaving if their parents force them too much.

APPENDIX B

MORAL DISENGAGEMENT AND BULLYING SCALE
**Instructions.** Please indicate how much you agree with the following statements:

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree

**Moral Justification**
- It's ok to bully others to protect your friends
- It's okay to call someone names if they don't respect your friends
- It's alright to exclude someone if they are a threat to the group's reputation
- It's okay to get into physical fights with someone if you have to stand up for or protect your friends
- Not including someone in a group is okay because some people want to be alone.
- There's nothing wrong with spreading rumors about someone you don't like, you have a right to express your opinions
- Bullying is a way to protect yourself from being bullied by others.
- It's okay to join in when someone you don't like is being bullied
- Cyberbullying annoying classmates is just teaching them a lesson.
- It's okay to get revenge if someone cyberbullies one of your friend
- People don't really mind being cyberbullied because it shows others are interested
- Bullying can be a good way to solve problems.

**Distorting Consequences**
- Directly calling a classmate names does not really hurt them.
- It's not a big deal to be pushed around in the halls.
- Saying bad things about other people in front of them doesn't hurt anyone.
- People don't mind being teased because it shows other people are interested in them.
- Leaving someone out intentionally isn't really going to hurt them.
- Everyone talks bad about other people, it's no big deal.
- Getting bullied in school is not a big deal.
- Bullying is not that big of a deal.
- Those who get bullied will get used to it.
- Someone cannot be blamed for cyberbullying when it is not illegal.
- Making fun of someone by posting on social media won't really hurt their reputation.
- I think consequences of cyberbullying are exaggerated.

**Diffusion of Responsibility**
- If a group decides to bully someone, it's unfair to blame just one person in the group for bullying.
- It's okay to pick on a classmate if everyone goes along with it.
- No one person is to blame if a person is being teased by everyone.
- If a group of people decide to leave someone out of the group, no one is to blame.
- It is not a person's responsibility to stop a fight if there are other people around.
- It's not one particular person's job to stop a rumor about someone when everyone is spreading the rumor.
- You should not feel bad for a person that is excluded and picked on by your group of friends, you should just go with the flow.
- When everyone is making negative comments on someone's social media page, it's ok for me to join in.
- It’s okay to call someone names if you see everyone else is doing it too.

**Euphemistic Language**
- Bullying annoying classmates is just teaching them a "lesson".
- If calling someone names is "just a joke", it's nothing bad.
- A person who hits others is just "being tough".
- Leaving someone out from a group is just "teasing", nothing more.
- Texting someone mean things is just being "annoying", not hurtful.
- Posting rumors on social media is a way to get "more likes".
- Spreading bad rumors about a person is just another way to get people's "attention".
- Excluding someone isn't that bad, it just means that people are in "different cliques."
- A girl who bullies others is just being a "drama queen".
- Boys who bullies others are just "boys being boys".
- Bullying is a "game" to see who is more popular/liked by others.
- Bullying is just part of "growing up".

**Advantageous Comparison**
- Calling someone names is not a big deal because hitting or kicking someone is worse.
- Picking on someone isn't bad, it's worse to be called a loser for not picking on them.
- It's okay to spread nasty rumors about someone because it's not as bad as beating them up.
- Spreading a rumor is okay, because starting a rumor is worse.
- It's okay to trip someone in the hallway when you know there are others who punch people in the face.
- When considering those who bully someone everyday, it's not bad to bully someone once in awhile.
- It's okay to watch someone being bullied because doing the bullying is worse.
- Bullying someone when nobody is around is okay because it's not as bad as bullying someone as part of a a group.
- Saying mean things to someone over text or in a video game is okay because saying the same thing in person is worse.
- Cyberbullying should not be considered as bad as bullying happening in the 'real world'.
- It's better to do nothing at all when your friends are bullying someone than to try to stop the bullying and get called a "snob".

**Displacement of Responsibility**
- A person should not be blamed for bullying others if they have seen others do it.
- If a person doesn't get in trouble they should not be blamed for calling others names.
- You shouldn't feel bad about spreading rumors when you didn't start them.
- It's the responsibility of adults, not kids, to stop bullying.
- A person can't be blamed for being pressured by their friends to push someone into the locker.
- If your friend starts ignoring a person, it's your friend's fault if others also start ignoring that person.
- If I see someone being bullied by others, it's a problem for those involved, not me.
- Those who cyberbully other people because their friends push them to do it should not be blamed for what they do.

**Dehumanization**
- Some people deserve to be treated like animals.
- It's okay to call someone names who behaves like a "jerk".
- It's okay to pick on "losers".
- Some people are "nerds" and deserve to be teased.
- Those who are different are less than human.
- It's okay if some people get pushed around in school because they don't really deserve to be treated like human beings.
- Some people deserve to be treated badly because they lack feelings.
- For some people, no one cares about them, so it's okay to bully them.
- Some people just don't matter and it's okay to leave them out.
- Those who can't or don't think, walk, or talk like us deserve to be bullied.
- Some people can't be hurt by cyberbullying because they lack feelings.
- It's okay to send mean messages through social media because you're just saying it to a picture on a screen.
- Some people lack self-restraint like an animal.

**Attribution of Blame**
- It's okay to call someone names if that person is disliked by everyone.
- If a person is teased by a classmate, it's the classmate's fault if the person then tries to injure them.
- Those who get bullied usually have done something to deserve it.
- It's okay to leave a person out if they act weird.
- Some people are so annoying that it is their fault if someone hurts them.
- If a person feels left out, it's their fault for not clicking with the group.
- If rumors are spread about someone, it is their own fault for being careless enough to share personal information.
- Those who get bullied bring it on themselves.
- If someone is different, it's okay to be mean to them.
- If people share personal information or photos online, it's their fault if they get bullied.
- If people give out their passwords to others, they deserve to be cyberbullied.
APPENDIX C

CYBERBULLYING AND VICTIMIZATION SURVEY (CBVS)
The purpose of this survey is to ask questions about times you have been bullied or bullied other online or electronically (electronic bullying or cyberbullying) in the last 2 to 3 months. We say a student is cyberbullied when another student or several students use technology, like cell phones or computers, to write or post mean and hurtful things about another student or to exclude, make fun of, tease or spread rumors about another person. These things happen repeatedly, are meant to be mean, and it is difficult for the student being bullied to defend himself or herself. People might do these things using email, text messages, instant messages, social networking sites, like MySpace, Facebook or Twitter, blogs, chat rooms or online gaming sites, etc.

Below is an example. Please read it carefully before starting your own ratings.

**How often?**

1 = It hasn’t happened at all in the past couple of months
2 = Only 1 or 2 times in the past couple of months
3 = 2 or 3 times a month
4 = About once a week
5 = Several times a week

For questions 18 to 28, think about things you have done.

In the last 2 to 3 months how often….  

18. …have you written something electronically or posted something online in order to make someone feel upset? 1 2 3 4 5  
19. …have you written something electronically or posted something online in order to make others laugh at someone? 1 2 3 4 5  
20. …have you teased someone online/electronically? 1 2 3 4 5  
21. …have you called someone names online/electronically? 1 2 3 4 5  
22. …have you made fun of someone online/electronically? 1 2 3 4 5  
23. …have you spread rumors about someone online/electronically? 1 2 3 4 5  
24. …have you lied about someone online/electronically? 1 2 3 4 5
25. …have you pretended to be someone else online/electronically in order to hurt someone? 1 2 3 4 5

26. …have you posted pictures or videos online/electronically in order to hurt someone? 1 2 3 4 5

27. …have you developed a website or blog in order to hurt someone? 1 2 3 4 5

28. …have you denied someone access to a webpage in order to tease or hurt someone? 1 2 3 4 5