



Participant Role Behavior in Cyberbullying: an Examination of Moral Disengagement Among College Students

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Abstract

The current study examined the role of moral disengagement in cyberbullying participant role behavior among college-aged individuals. Participants included 434 students who completed surveys measuring their participation in cyberbullying, including online bystander role behaviors, as well as their moral disengagement. Regression analysis results indicated that moral disengagement was positively associated with cyberbullying perpetration, cyberbullying victimization, passive bystanding online behavior, and reinforcing online behavior. The current study furthers knowledge on the associations between online bullying-related behavior and moral disengagement and could lead to necessary cyberbullying prevention and intervention support for young adults.

Keywords Cyberbullying participant role behavior · Moral disengagement · Cyberbullying · College students

With the continued rise in the use of technology, cyberbullying remains a pervasive concern for young adults. Cyberbullying perpetration behaviors involve continued harassment via technology, including social media, texting, email, and other types of electronic media (Erb, 2008; Gibb & Devereux, 2014; Hinduja & Patchin, 2011; Whittaker & Kowalski, 2015). With the increasing use of technology, cyberbullying has emerged as a growing concern for young people whose lives are increasingly immersed in technology (Cassidy et al., 2013; David-Ferdon & Hertz, 2007; Von Marées & Petermann, 2012). While much of the research on cyberbullying has focused on adolescents, cyberbullying is also an issue occurring within the young adult population (Bauman, 2013; Gibb & Devereux, 2014; MacDonald & Roberts-Pittman, 2010; Schenk & Fremouw, 2012; Whittaker & Kowalski, 2015).

Akin to traditional bullying, cyberbullying involves a real or perceived power imbalance, intention to harm, and repetition over time (Gladden et al., 2014); when these behaviors take place over online platforms (e.g., social media, online games), it is considered cyberbullying (Kowalski & Limber, 2013). Aligning with traditional bullying research, several negative outcomes have been associated with both

cyberbullying perpetration and victimization (Kowalski et al., 2014), such as depression, anxiety, lower self-esteem, and school problems (Gámez-Guadix et al., 2013; Katzer et al., 2009; Patchin & Hinduja, 2006; Schenk & Fremouw, 2012).

Estimates of cyberbullying victimization among college students vary widely across studies, from 9 to 34% (Baldasare et al., 2012). At a large midwestern university, Varghese and Pistole (2017) found that 15.1% of undergraduate students were victimized via cyberbullying and 8.0% perpetrated cyberbullying. These rates are lower compared to what Poole (2017) found in a national sampling of 16 colleges, as 85.2% of their college student participants reported cyberbullying victimization. Prevalence rates of cyberbullying perpetration are highly variable across studies, likely due to discrepancies in definition and criteria as well as sample group characteristics (Smith, 2015; Whittaker & Kowalski, 2015). Overall, prevalence rates of cyberbullying victimization are typically between 10 and 40%, though it has been well-established that students from marginalized groups are likely to experience much higher rates than those from dominant groups (Didden et al., 2009; Heiman et al., 2015; Kowalski et al., 2014, 2016; O'Brennan et al., 2009).

Most studies have documented greater prevalence of cyberbullying perpetration among males than females (Guo, 2016). Females were more likely to be cyber victimized but the effect size was small (Guo, 2016). Among the

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college-age individuals, there appears to be no gender differences (MacDonald & Roberts-Pittman, 2010).

Cyberbullying Participant Roles

Similar to traditional bullying, cyberbullying participation role behaviors include more than cyberbullying perpetration and victimization, such that individuals can be involved as bystanders. These behaviors include staying passive from any involvement, defending the cyber victim, and supporting the cyberbullying perpetration (Craig et al., 2000; Salmivalli et al., 1996). It can be assumed that these role behaviors also apply to cyberbullying (Van Cleemput et al., 2014). Hence, examination of these bystander role behaviors within an online environment is crucial to our understanding of underlying mechanisms affecting outcomes for all involved. Further, current understandings of bystander role behavior within the cyberbullying context are limited; however, most individuals involved in cyberbullying are bystanders and play an important role in mitigation of bullying behavior (Cricchio et al., 2020; Sarmiento et al., 2019).

Mixed results are shown for gender differences among other cyberbullying participant role behaviors. Some studies found that males are more likely to reinforce online, while females are more likely to defend online (Bastiaensens et al., 2014; Quirk & Campbell, 2015). One hypothesized reason for this difference is that females are more likely than males to perceive bullying as an emergency (Jenkins & Nickerson, 2017). Other explanations involve gender differences in moral disengagement (Paciello et al., 2008). Conversely, no gender differences have emerged in other work on this issue (Barlińska et al., 2018; Macháčková et al., 2013). More research is needed to determine if and how gender is related to bullying participant role behaviors in an online environment.

Moral Disengagement

Founded on Bandura's (1991) social cognitive theory, moral disengagement is theorized to permit individuals to commit actions, such as cyberbullying, that would normally contradict their moral standards—without feelings of guilt or remorse (Bandura et al., 1996). In other words, moral disengagement is conceptualized as the process by which individuals engage in justification to decrease distress associated with behavior misaligning with moral standards. Moral standards serve to guide future behaviors that align with internal values to avoid external and internal distress (Shulman et al., 2011).

Moral disengagement may explain why people commit transgressions despite knowing that such behavior is hurtful. Studies investigating moral disengagement among

aggressive individuals found that high levels of moral disengagement have been linked to higher levels of irritability and a lack of guilt or desire to correct misbehavior (Bandura et al., 1996). Further, individuals with higher levels of moral disengagement also engage in higher levels of interpersonal aggression and delinquent behavior. Scholars studying aggression and bullying are increasingly interested in the role of moral disengagement mechanisms as it may be an important explanation for why individuals commit harmful behaviors that are contradictory to their moral standards (Hymel & Bonanno, 2014).

Few studies have examined the role of gender and age in moral disengagement. Among individuals displaying both verbal and physical aggressive behavior, males tend to exhibit higher levels of moral disengagement than females (Bandura et al., 1996; McAlister et al., 2006). When moral disengagement and cyberbullying were examined together, gender was found to moderate the link, with the relation between moral disengagement and cyberbullying stronger in males than females (Wang et al., 2016). Developmentally, older children report more use of moral disengagement mechanisms than younger children (Bandura et al., 1996; Gini et al., 2014), a trend that continues into adolescence with maturity leading to increased use of moral disengagement as youth engage in behaviors contradictory to their moral values.

Cyberbullying Participant Roles and Moral Disengagement

Moral disengagement is specifically used by those who engage in cyberbullying to justify their negative actions and negate cognitive distress (Doramajian & Bukowski, 2015; Wang et al., 2016). Positive associations between moral disengagement and bullying perpetration behavior are well supported in the literature (Killer et al., 2019). However, in a 2019 meta-analysis (Killer et al.), only six out of the included 38 studies investigating associations between bullying and moral disengagement examined cyberbullying. Nonetheless, the associations with moral disengagement were similar in both traditional bullying and cyberbullying. Considering age and gender in relation to the association between moral disengagement and cyberbullying, findings are mixed (see Cricchio et al., 2020). While some work supports increased age leading to stronger associations between moral disengagement and cyberbullying perpetration, other work has not supported this (Cricchio et al., 2020). Similarly, studies examining the role of gender have elicited discrepant results. These differing results could be related to the usage of different definitions of cyberbullying, measures of cyberbullying, and/or sample characteristics.

Regarding the association between cyberbullying victimization and moral disengagement, studies report conflicting findings, with some reporting a negative correlation (Pornari & Wood, 2010), and others reporting a positive correlation (Allison & Bussey, 2017), and some finding no significant association (Gini, 2006; Pozzoli et al., 2016). Nonetheless, meta-analytic data have revealed a positive association between cyberbullying victimization and moral disengagement (Kowalski et al., 2014), and the association between victimization and moral disengagement has shown to be stronger for cyberbullying victimization than traditional victimization (Killer et al., 2019). Conflicting findings may be due to individuals indicating victim behaviors also being involved in bullying behavior (Kowalski et al., 2014; Pornari & Wood, 2010).

There is a need to examine other cyberbullying participant role behaviors and their associations with moral disengagement, as there are relatively few studies that have examined bystander role behaviors and moral disengagement in the online context (Cricchio et al., 2020). Qualitative studies have examined reasons why adolescents do not intervene in cyberbullying, in other words, why they may be passive bystanders online (see Allison & Bussey, 2016). Moral disengagement may be used to justify that individuals are not personally responsible to intervene in a situation. In addition, moral disengagement could also be utilized to justify that the victim does not deserve better treatment (DeSmet et al., 2012; Holfeld, 2014; Price et al., 2014).

Regarding defending online behavior, findings have been inconsistent. Two studies have evidenced a weak positive association with moral disengagement (Killer et al., 2019), with authors suggesting that it may be easier to respond aggressively due to a lack of social cues in an online context. Other work has evidenced weak negative associations (DeSmet et al., 2016). Thus, more work is needed to determine how defending online behavior is associated with moral disengagement.

Online reinforcing behavior has been highly correlated with bullying perpetration as well as assisting behavior (Killer et al., 2019). Furthermore, all aggressive role behaviors (bullying perpetration, reinforcing, assisting) share the same tendency to activate greater levels of moral disengagement than non-aggressive roles (e.g., defenders; Killer et al., 2019). Parsing out the individual role behaviors, Wachs (2012) found that frequent reinforcers online had higher levels of moral disengagement than less frequent actors. This may suggest that reinforcing online behaviors, similar to cyberbullying perpetration, require higher levels of moral disengagement to alleviate cognitive distress.

As personal and professional reliance on technology continues among college-aged people (Selkie et al., 2015; Smith et al., 2011), there is a crucial need to better

understand how moral disengagement may function with cyberbullying both for this developmental level and within the online context. The current study examined associations between moral disengagement and cyberbullying behaviors, including bystander role behaviors, among the college-age population.

Current Study

There is an increasing interest in the role of moral disengagement in explaining why individuals engage in harmful behaviors towards others (Hymel & Bonano, 2014). In fact, research clearly demonstrates the positive associations between moral disengagement and aggressive behavior (e.g., Bandura et al., 1996; Doramajian & Bukowski, 2015; Gini et al., 2014; Wang et al., 2016). Cyberbullying is another form of aggression, and the association between cyberbullying perpetration behavior and moral disengagement is well supported in the literature, such that they are positively associated (Killer et al., 2019). However, it is still unclear how moral disengagement can relate to all cyberbullying participant role behaviors despite the evidence that most individuals involved in cyberbullying are passive bystanders who are integral to the situation (Cricchio et al., 2020; Sarmiento et al., 2019). To add to the current knowledge of moral disengagement and cyberbullying, this study examined the association between moral disengagement and the various cyberbullying role behaviors. Specifically, the study investigated three research questions: (1) How does moral disengagement relate to cyberbullying perpetration behavior? (2) How does moral disengagement relate to cyberbullying victimization? (3) How does moral disengagement relate to bystander behaviors online (i.e., reinforcing online, defending online, passive bystanding online)? Corresponding to the three research questions, the study predicted that (1) moral disengagement would be positively associated with cyberbullying perpetration (Bandura et al., 1996; Doramajian & Bukowski, 2015; Killer et al., 2019); (2) moral disengagement would be positively associated with cyberbullying victimization (Allison & Bussey, 2017); (3) reinforcing online and passive bystanding online have been evidenced to be positively associated with moral disengagement (Cricchio et al., 2020; Wachs, 2012), while the findings on defending online have been more mixed (DeSmet et al., 2016; Ma et al., 2019); thus, we hypothesized that moral disengagement would be positively associated with reinforcing online and passive bystanding online and negatively associated with defending online. Gender was investigated in all aforementioned associations in an exploratory manner; thus, predictions were not made.

Method

Participants

Participants were undergraduate students ($N=434$) from a midwestern university who received course credit in exchange for their participation in the study. One hundred seventy participants (39%) were men, 262 (60%) were women, and 2 (1%) chose not to identify their gender. Further, 44% (192) identified as White, 27% (118) as African American, 18% (78) as Hispanic/Latinx, 7.6% (33) as Asian, 0.9% (4) as American Indian or Alaska Native, 0.5% (2) as Native Hawaiian or Pacific Islander, and 1.6% (7) as Other. While age data were not collected for 25% of our sample, we did have age data for the remainder of the sample. The majority of our participants were between the ages of 18 and 24 ($N=269$; 71%) while the rest of the participants were between the ages of 25 and 42 ($N=20$; 29%).

Measures

MDS (Bandura et al., 1996)

Bandura et al. (1996) Moral Disengagement Scale (MDS) was utilized to measure moral disengagement. The MDS includes 32 items and eight subscales (4 items per subscale) encompassing the eight moral disengagement mechanisms (i.e., moral justification, advantageous comparison, euphemistic language, displacement of responsibility, diffusion of responsibility, dehumanization, attribution of blame, and distorting of consequences). Some example items from the MDS include: "It is alright to fight to protect your friends" and "Slapping and shoving someone is just a way of joking." Bandura also included five transgressive activities including physically injurious and destructive conduct, verbal abuse, deceptions, and thefts. The original MDS items are rated on a 3-point Likert-type scale. The authors of the current study were concerned that a 3-point scale might be insufficient for reliable and valid results. Thus, a 5-point Likert-type scale was utilized (1 = *Strongly agree*, 2 = *Agree*, 3 = *Neither agree nor disagree*, 4 = *Disagree*, 5 = *Strongly disagree*; $\alpha=0.95$). Other studies have utilized Bandura's scale with a 5-point Likert scale (Obermann, 2011; Paciello et al., 2008; Rubio-Garay et al., 2017). In addition, studies have shown that Likert scale responses greater than three increases the reliability and validity of the measure (Lee & Paek, 2014; Lozano et al., 2008; Preston & Colman, 2000). It is important to note that coding had to be reversed for scoring and analyzing the data (i.e., 1 = *Strongly disagree* and 5 = *Strongly agree*) so that a higher score described higher levels of moral disengagement. Factor analysis of this scale has

indicated a one-factor structure accounting for 16.2% of the variance (Bandura et al., 1996). The same study indicated solid reliability with a composite measure of moral disengagement ($\alpha=0.82$). Bandura's study (1996) also reported reliability and generalizability of the association between moral disengagement and aggressive/delinquent behaviors, with each correlation significant beyond the 0.001 level.

The CBVS (Brown, 2014; Brown et al., 2014)

The Cyberbullying and Victimization Survey (CBVS; Brown, 2014; Brown et al., 2014) was utilized to measure cyberbullying victimization and perpetration. Each construct is measured as separate scales, the Cyber Victimization Scale (CVS) and the Cyber Perpetration Scale (CPS). From this questionnaire, the CVS (15 items) and CPS (low intensity; 6 items) were used for analyses in this study. Some example items from the CVS include: In the last 2 to 3 months... "have you been teased online/electronically?," "has someone lied about you online/electronically?," and "have you been called names online/electronically?" Participants responded to items using a 5-point Likert-type scale, ranging from *It hasn't happened at all in the past couple of months* to *Several times a week*. Example items from the CPS include the following: In the last 2 to 3 months how often... "have you called someone names online/electronically?" and "have you made fun of someone online/electronically?"

Brown et al. (2014) analyzed the CVS, demonstrating sound psychometric properties. When a confirmatory factor analysis was run, the 15 cyber victim items loaded onto a single factor for cyberbullying victimization, which accounted for 52% of the variance (loadings ranged from 0.622 to 0.806). Internal consistency emerged at 0.924, and the score correlated moderately and significantly with the Cyberbullying and Online Aggression Survey Instrument (Hinduja & Patchin, 2007), $r=0.589$.

Psychometric support for the CPS has also been demonstrated. In Brown (2014), Cronbach's alpha for the CPS was 0.753. Prior work by Brown (2014) found two factors: low-intensity and high-intensity bullying perpetration. While participants were given a questionnaire that contained all twelve items of the CPS scale, the current study only analyzed items that were focused on low intensity (6 items; $\alpha=0.865$ from Brown, 2014) as they had higher internal consistency than the items focused on high intensity (6 items; $\alpha=0.790$ from Brown, 2014). Given we only utilized one factor of the CPS, a confirmatory factor analysis (CFA) under maximum likelihood estimation was used to evaluate the measure in the current study data. The fit indexes cutoff levels to determine the fit of the one factor were adequate ($X^2=202.92$, $df=15$, $p<0.001$; RMSEA = 0.056 [90% CI

0.044, 0.068], SRMR = 0.054, CFI = 0.941, TLI = 0.901). The internal consistency for the 6 items in the current sample was 0.90.

CBS (Sarmiento et al., 2019)

The Cyberbullying Bystander Scale (CBS; Sarmiento et al., 2019) is a 40-item measure. Six factors emerged in this measure, assessing various bullying bystander role behaviors, both online and face-to-face. These factors were passive bystander (online and face-to-face), defender of the cyber victim (online and face-to-face), and reinforcer of the cyber bully (online and face-to-face). Three scales of the CBS were used to measure passive bystanding online (5 items), defending online (6 items), and reinforcing online (7 items). Offline cyber bystander behavior, which can be measured with three other scales of the CBS, was not part of this study as our focus was on cyber-related behaviors. Participants indicated their answers on a 5-point Likert-type scale ranging from 1 = *Very frequently*, 2 = *frequently*, 3 = *About half the time*, 4 = *Sometimes*, and 5 = *Never*. It is important to note that, just like the MDS, the coding was reversed for scoring and analyzing the data (i.e., 1 = *Never* and 5 = *Very frequently*) so that higher scores indicated higher engagement in cyberbullying bystander behaviors. Examples of items include “I share hurtful posts (photos, videos or messages) that were uploaded by others” (reinforcer of the cyber bully online); “When I am on social media and I see some people harass others who cannot defend themselves, I tell them not to do this” (defender of the cyber victim online); and “When I browse the internet and/or social networks, I see how some people make fun of others, but I do not do anything to avoid it” (passive bystanding online).

Prior studies have confirmed the original factor structure of the CBS (Sarmiento et al., 2019). However, given the relatively new nature of the CBS, several preliminary analyses were conducted to confirm its structure and reliability. Specifically, a confirmatory factor analysis (CFA) under maximum likelihood estimation with a maximum likelihood correction was used to evaluate the CBS roles of passive bystanding online, defender of the cyber victim online, and reinforcer of the cyber bully online. As this study was primarily interested in cyberbullying, face-to-face behaviors were not included in the CFA. Due to high levels of skewness and kurtosis within the reinforcer residuals, a MLR correction was used to provide more robust estimates of fit. The model included correlations between factors, and error variances of the measured variables both within and across factors were uncorrelated. The 3-factor model was determined to have acceptable fit ($X^2 = 325.45$, $df = 132$, $p < 0.001$; RMSEA = 0.06, SRMR = 0.053, CFI = 0.939, TLI = 0.929). Additionally,

Cronbach’s alpha was calculated to determine internal reliability for passive bystanding online (Cronbach’s alpha = 0.897), defender of the cyber victim online (Cronbach’s alpha = 0.910), and reinforcer of the cyber bully online (Cronbach’s alpha = 0.940).

Procedure

Institutional Review Board (IRB) approval was obtained for the current study. Undergraduate college students from a midwestern university were recruited in their Introduction to Psychology course. Students received credit for their psychology course for their participation in the study. Data were collected via an online survey and students could complete the survey on their own time. All participants provided consent when they began the survey. All data were gathered at one time point.

Data Analysis

Mean scores for the Moral Disengagement Scale, Cyberbullying and Victimization Survey (i.e., cyberbullying and cyberbullying victimization), and CBS (i.e., passive bystanding online, defending online, and reinforcing online) were calculated and used in all analyses. Missing item-level data were mean-imputed on a case-by-case basis for each subscale if at least 80% of the subscale’s items were answered. Every participant completed the moral disengagement measure. The remaining measures were completed by 97% of the participants. Analyses were conducted using SPSS (IBM Corporation, 2017) and the R software. The independent variable of total moral disengagement was mean centered. Gender was dummy coded (0 = men and 1 = women). Main analyses consisted of a series of hierarchical regression analyses.

Results

Preliminary Analyses

Table 1 includes means and standard deviations of all variables for the total sample. Table 2 provides intercorrelations among the variables by gender. Several preliminary analyses were conducted including a CFA of the CBS (Sarmiento et al., 2019), for which R software was used. Additionally, gender differences were considered in moral disengagement, the role behaviors and the influence of moral disengagement on role behavior.

Table 1 Means and standard deviations for all study variables by total sample and gender

	Total		Men		Women	
	<i>n</i>	<i>M (SD)</i>	<i>n</i>	<i>M (SD)</i>	<i>n</i>	<i>M (SD)</i>
Moral disengagement	432	1.92 (0.61)	170	2.04 (0.57)	262	1.84 (0.63)
Cyberbullying perpetration	418	1.16 (0.50)	168	1.26 (0.63)	250	1.10 (0.38)
Cyberbullying victimization	419	1.23 (0.48)	168	1.24 (0.46)	251	1.22 (0.50)
Passive bystanding	419	2.44 (1.05)	168	2.66 (1.11)	251	2.29 (0.99)
Defending	419	2.23 (1.00)	168	2.08 (0.99)	251	2.34 (0.99)
Reinforcing	420	1.29 (0.63)	168	1.34 (0.68)	252	1.26 (0.60)

The minimum value for all study variables was 1, while the maximum value for all study variables except for cyberbullying perpetration was 5; the maximum value for cyberbullying perpetration was 4.5. Higher values indicate that individuals endorsed more items aligning with the role construct, indicating they were more likely to engage in behaviors within that role

Gender Differences

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 $F(1, 430) = 10.66, p = 0.001$. Men reported a significantly higher level of moral disengagement ($M = 2.04, SD = 0.57$) than women ($M = 1.84, SD = 0.63$).

Main Analyses

The main analyses consisted of a series of hierarchical regression analyses with total moral disengagement (centered) and gender entered in step 1, and the addition of the moral disengagement (centered) by gender interaction in step 2 with the dependent variables of cyberbullying, cyberbullying victimization, passive bystanding online, defending online, and reinforcing online, respectively. See Table 3 for all the regression results.

Research Question 1: How Does Moral Disengagement Relate to Cyberbullying Perpetration Behavior, and Does It Interact with Gender?

Step 1 of the regression was significant, $R^2 = 0.058, p < 0.001$. Step 2 did not account for significantly more variance than

step 1, $R^2 \Delta = 0.000, p = 0.978$. In step 1, gender was significantly and negatively associated with cyberbullying, $\beta = -0.131, p < 0.01$, indicating men had higher cyberbullying scores. Moral disengagement was significantly and positively associated with cyberbullying, $\beta = 0.151, p < 0.001$.

Research Question 2: How Does Moral Disengagement Relate to Cyberbullying Victimization Behavior and Does It Interact with Gender?

Step 1 of the regression was significant, $R^2 = 0.043, p < 0.001$. Step 2 did not account for significantly more variance than step 1, $R^2 \Delta = 0.005, p = 0.16$. In step 1, moral disengagement was significantly and positively associated with cyberbullying victimization, $\beta = 0.165, p < 0.001$.

Research Question 3: How Does Moral Disengagement Relate to Bystander Behaviors Online (i.e., Passive Bystanding Online, Defending Online, Reinforcing Online) and Does It Interact with Gender?

Regarding the passive bystanding online score, step 1 of the regression was significant, $R^2 = 0.071, p < 0.001$. Step 2 did not account for significantly more variance than Step One, $R^2 \Delta = 0.001, p = 0.61$. In step 1, gender was significantly and negatively associated with the passive bystanding online

Table 2 Intercorrelations among all key study variables

Variable	1	2	3	4	5	6
1. Moral disengagement	–	.134	.114	.210**	.072	.280**
2. Cyberbullying perpetration	.250**	–	.631**	.070	–.100	.124
3. Cyber victimization	.257**	.670**	–	.055	.191*	.113
4. Passive bystanding	.206**	.125*	.045	–	–.026	.280**
5. Defending	–.103	.101	.160*	–.175**	–	.196*
6. Reinforcing	.382**	.416**	.343**	.276**	0.92	–

Values above the diagonal are for men and values below are for women

* $p < .05$; ** $p < .01$

Table 3 Summary of regression analyses for moral disengagement and cyberbullying role behaviors

Dependent variable		β	SE β	Sig	R^2 change
Cyberbullying perpetration	Step 1***				.058
	Gender**	-.131	.049	.008	
	Moral disengagement***	.151	.040	<.001	
	Step 2				.000
	Gender**	-.131	.050	.008	
	Moral disengagement	.147	.142	.302	
Cyber victimization	Moral disengagement \times gender	.002	.083	.978	
	Step 1***				.043
	Gender	.012	.048	.796	
	Moral disengagement***	.165	.038	<.001	
	Step 2				.005
	Gender	.007	.048	.889	
Passive bystanding	Moral disengagement	-.022	.138	.874	
	Moral disengagement \times gender	.114	.080	.158	
	Step 1***				.071
	Gender**	-.299	.103	.004	
	Moral disengagement***	.354	.082	<.001	
	Step 2				.001
Defending	Gender**	-.295	.103	.005	
	Moral disengagement	-.498	.296	.093	
	Moral disengagement \times gender	-.087	.173	.613	
	Step 1**				.017
	Gender*	.242	.100	.016	
	Moral disengagement	-.061	.080	.449	
Reinforcing	Step 2				.007
	Gender*	.256	.100	.011	
	Moral disengagement	.413	.286	.150	
	Moral disengagement \times gender	-.287	.167	.086	
	Step 1***				.117
	Gender	-.005	.060	.929	
	Moral disengagement***	.353	.048	<.001	
	Step 2				.000
	Gender	-.007	.060	.914	
	Moral disengagement	.315	.173	.070	
	Moral disengagement \times gender	.023	.101	.818	

Gender 0 = men, 1 = women. Higher values indicate that individuals were more likely to use moral disengagement

* $p < .05$; ** $p < .01$; $p < .001$

score, $\beta = -0.299$, $p < 0.01$, indicating men had higher passive bystanding online scores. Additionally, moral disengagement was significantly and positively associated with the passive bystanding online score, $\beta = 0.354$, $p < 0.001$.

Regarding the defending online score, step 1 of the regression was significant, $R^2 = 0.017$, $p < 0.01$. Step 2 did not account for significantly more variance than step 1, $R^2 \Delta = 0.007$, $p = 0.09$. In step 1, gender was significantly and positively associated with the defending online score, $\beta = 0.242$, $p < 0.05$, indicating women had higher defending

online scores. Additionally, moral disengagement was not significantly associated with the defending online score, $\beta = -0.061$, $p = 0.45$.

Regarding the reinforcing online score, step 1 of the regression was significant, $R^2 = 0.117$, $p < 0.001$. Step 2 did not account for significantly more variance than step 1, $R^2 \Delta = 0.000$, $p = 0.82$. In step 1, moral disengagement was significantly and positively associated with the reinforcing online score, $\beta = 0.353$, $p < 0.001$.

Discussion

The current study examined the association between participants' level of moral disengagement and five distinct cyberbullying role behaviors: bullying perpetration, victimization, passive bystanding, defending, and reinforcing behaviors. Additionally, gender differences were considered in moral disengagement, the cyberbullying role behaviors, and the influence of moral disengagement on role behavior. As expected, cyberbullying perpetration was positively associated with moral disengagement. This is in line with Bandura et al. (1996) social-cognitive theory of moral thought and behavior, such that moral disengagement is a critical factor underlying the aggressive behaviors of cyberbullying perpetration. These individuals may employ moral disengagement mechanisms to reduce the negative feelings associated with acting against their moral beliefs (Doramajian & Bukowski, 2015). In fact, several other studies validate that cyberbullying perpetration is associated with greater moral disengagement proneness (Bussey et al., 2015; Pornari & Wood, 2010; Wang et al., 2016).

Being victimized via cyberbullying was associated with higher levels of moral disengagement. Results from Killer et al. (2019) meta-analysis found conflicting research regarding moral disengagement and victimization. The concept of self-blame is offered as to why victims utilize moral disengagement strategies in cyberbullying situations. Whereas individuals who are victimized may develop an increased sensitivity towards morality, Perren et al. (2012) theorized that as victims are bullied, they may instead develop a tendency towards self-blame, leading them to believe that bullying is acceptable and demonstrating moral disengagement beliefs. Just as perpetrators are prone to justifying their behaviors using moral disengagement mechanisms that involve attributing blame to the victim, victims may also come to believe that they are bullied because they feel they are at fault (Kowalski et al., 2014). Another hypothesis as to the positive association between cyberbullying victimization and moral disengagement may be related to the idea that these individuals could also be involved in bullying perpetration (Kowalski et al., 2014; Pornari & Wood, 2010). This possibility aligns with results indicating overlap between cyberbullying perpetration and cyber victimization with a moderate level of correlation (0.67), indicating that those who engage in cyberbullying perpetration are often the same individuals who engage in cyberbullying victimization.

Passive bystanders—those who do not engage in the bullying situation—comprise a large portion of individuals in a bullying episode (Sarmiento et al., 2019). Although these individuals may believe intervening is the right action, because of moral disengagement mechanisms, they may not feel guilty

that they are not intervening (Barchia & Bussey, 2011). Our findings may relate to this theory as passive bystanding behaviors were associated with higher levels of moral disengagement. Those engaging in passive bystanding behaviors may possess high moral disengagement to prevent feelings related to the need to get involved in a cyberbullying situation. Our results support the findings from three quantitative articles mentioned by Cricchio and colleagues (i.e., Conway et al., 2016; Leduc et al., 2018; Zhou et al., 2018).

Further, unlike the traditional face-to-face context, online cyberbullying incidents allow increased anonymity and accessibility (Wong-Lo & Bullock, 2014). Passive bystanders online might not be motivated to assist the victims because they do not know them personally or because oftentimes the cyberbullying situation is publicly viewable to others, they expect others might intervene instead (Van Cleemput et al., 2014). Particularly, Van Cleemput and colleagues identified four of the mechanisms of moral disengagement that related to open-ended answers from participants who chose not to intervene in cyberbullying. Participants indicated that they did not intervene because they did not personally feel responsible for the cyberbullying (diffusion of responsibility), they believed the responsibility is in the victim's actions (displacement of responsibility), they believed the victim provoked the bullying (attribution of blame), and/or they believed the bullying was not serious (distortion of consequences).

Defending is a prosocial activity involving the helping of those who are being victimized. As such, researchers have theorized that individuals who help victims of cyberbullying should be less prone to endorse moral disengagement beliefs compared to those who engage in antisocial behaviors such as bullying perpetration (Killer et al., 2019). Our findings suggest that the association between moral disengagement and defending behavior in the online context is not as well-established as this theory suggests. Our findings were more aligned with two studies that found moral disengagement and defending behaviors were not significantly associated (Allison & Bussey, 2017; Barchia & Bussey, 2011). Although Barchia and Bussey (2011) examined defending behaviors in traditional in-person settings, Allison & Bussey examined online defending.

Although defending behavior is most often considered a constructive prosocial behavior, some studies (e.g., Bussey et al., 2020; Luo & Bussey, 2019) suggest that defending behavior is a multifaceted construct making up not only "prosocial/constructive" defending but also "aggressive" defending. Constructive defending behaviors may include consoling the victim or notifying someone in authority. Whereas aggressive defending also aim to assist those who are victimized, they differ in behavior in comparison to prosocial defending, as they confront the bullying in an aggressive manner which can even escalate

the situation. In fact, moral disengagement was found to relate positively to aggressive defending and negatively to prosocial defending (Luo & Bussey, 2019). In the current study, items in the CBS did not explicitly refer to comforting the victim nor separated the two types of defending, a limitation of the study.

Another potential predictor of defending that is worth mentioning is one's belief that they have the capability to assist a victim, known as self-efficacy. While self-efficacy is a construct not measured in our study, it is a social-cognitive factor that can interact with moral disengagement to explain individuals' different responses. Bussey et al. (2020) found that moral disengagement was positively associated with defending when self-efficacy was high but not associated with defending when self-efficacy was low. Examining the importance of self-efficacy and defending behavior as a multifaceted construct composed of aggressive and constructive defending may clarify the reason for inconsistent findings across studies. Future research should consider the role that self-efficacy may play in the associations between moral disengagement and cyberbullying behavior.

In line with past findings, our results demonstrated a positive association between reinforcing online behavior and moral disengagement, implying that those who reinforce bullying behaviors online are more likely to also report higher levels of moral disengagement. Study by Orue et al. (2021) examining the different bystander role behaviors showed that those engaged in reinforcing online behavior had significantly higher cyberbullying justification scores than those who engaged in online passive bystander behavior and defending. The study defined cyberbullying justification as ideas that maintain aggression as acceptable. The current study reflects how those who are engaged in reinforcing behaviors are also more likely to endorse moral disengagement.

Gender Differences

In line with previous findings, our analyses indicated that men exhibited higher levels of moral disengagement than women (Bandura et al., 1996; McAlister et al., 2006). In addition, men had higher cyberbullying perpetration scores, a finding consistent with previous studies (Guo, 2016). Additionally, we found that women reported passive bystander online behavior less frequently than men, although they reported defending online behavior more often than did men. This aligns with studies that have suggested that women and girls typically engage in higher levels of defending than men, and females are more likely to provide help to those who are victimized compared to their male counterparts (Bastiaensens et al., 2014; Gini et al., 2015; Olenik-Shemesh et al., 2017). Furthermore, the current study also examined whether gender interacted with moral disengagement in associations with cyberbullying participant role behaviors. Similar to the

findings from a meta-analysis by Gini et al. (2014), there were no significant gender interactions, meaning that the associations between moral disengagement and cyberbullying role behaviors did not change as a function of gender.

Limitations

Several limitations in the current study are noted. To begin, the study was conducted during the COVID-19 pandemic, meaning that data were collected during the implementation of unusual precautions and during online instruction. This could have resulted in differences in time spent online and patterns in moral disengagement as compared to studies prior to and post pandemic. Further, this study included only college enrolled students at one institution in the mid-western USA. Thus, generalization may be limited to only young adults attending higher education and may not pertain to those who did not pursue further education. Moreover, due to sampling convenience, the study was largely limited to students enrolled in an introductory psychology course which could result in different levels of cyberbullying and moral disengagement in comparison students not enrolled in the course.

Study participants were also disproportionately women; thus, overall results may be skewed toward behaviors that are more typical of women than men. Due to a clerical error, several participant ages were unreported, thus, an average age of those included is not definitive and limits conclusions. Additionally, this study presented Bandura's moral disengagement measure's Likert scale and the cyberbullying bystander measure's Likert scale in descending rather than ascending order. According to Chyung et al. (2018), using a descending order of the Likert-scale, rather than an ascending order, may lead to a bias that generates more positive responses from the participants. In this case, this may mean that participants indicated they agree with moral disengagement reasonings or they engage in more cyberbullying bystander role behaviors.

This study was conducted via self-report measures and only considered online bullying behaviors. People are often erroneous in their reports of their own behaviors (Bernstein et al., 2001; Hadaway et al., 1998; Shephard, 2003); thus, it is probable that individuals sampled engage in more negative behaviors than reported. Furthermore, bullying has the potential to transcend online and in-person contexts for many individuals involved. Thus, it is likely that these behaviors could be more accurately measured if both contexts are considered. Finally, study in this field has shown great overlap between bullying behaviors (Killer et al., 2019), such as victimization and perpetration often being reciprocal. In our study, we investigated each cyberbullying role separately. By examining these roles separately, the study may have missed the overlapping role behaviors individuals can

engage in, which in turn may affect the association between cyberbullying roles and moral disengagement (Demaray et al., 2021). Future research may want to investigate the overlapping cyberbullying roles and associations with moral disengagement.

Future Directions

Further study in this area could consider a variety of intricacies involved in both moral disengagement and cyberbullying. First, future research can attempt to see if the defending behavior has a significant relation to moral disengagement or if there is no association between them. Tied to defending behavior, future studies may want to examine whether other concepts such as self-efficacy moderating the link between moral disengagement and cyberbullying. Future study on this topic can also address the current study limitation of generalizability to include other age groups in the study.

Additionally, further investigation could be conducted onto the various mechanisms of moral disengagement and the differential role each may play across bully participant role behaviors. These participant role behaviors are fluid and dynamic (Ryoo et al., 2014). For example, results from the current study found that individuals who are involved in cyberbullying victimization are also likely to be involved in cyberbullying perpetration; thus, it may be pertinent to consider in examining the association with moral disengagement. Future study on this topic can examine the association between cyberbullying and moral disengagement by including cyberbullying perpetration as a covariate of cyberbullying victimization. Consideration could also be given to other demographic groups to discern if differences exist. This could include differences in age, developmental process, geographic region, socioeconomic status, educational attainment, and race/ethnicity in cyberbullying participation and moral disengagement.

An important extension of this work could be examining the effectiveness of moral disengagement as a means to reduce cyberbullying perpetration and cyberbullying victimization. These findings show that intervention and prevention programs that work to reduce moral disengagement among both perpetrators and bystanders alike, may be an effective route to reducing cyberbullying perpetration behaviors. Thus, for college students, a reduction of moral disengagement in cyberbullying perpetration, reinforcing and passive bystanding behaviors could be hypothesized to result in a decrease in these behaviors due to the positive associations found in this study.

Finally, further exploration is warranted to determine how cyberbullying and face-to-face bullying may work in tandem and how varying levels of each are related to moral disengagement.

Implications and Conclusion

This study yields several interesting implications for study and application. Results contribute to a growing body of evidence that cyberbullying perpetration is positively associated with moral disengagement. Further, the current study found that passive bystanding behaviors and reinforcing online behaviors are also positively associated with moral disengagement. These findings provide insight into future directions for prevention and intervention to reduce cyberbullying perpetration and victimization within the college-age population, and provide additional understanding into the associations within the online context between defending, reinforcing, and passive bystanding behaviors with moral disengagement.

Overall, this study provides evidence of the associations between moral disengagement and cyberbullying roles as it pertains to college students. This work demonstrates that, for college students, moral disengagement functions as expected in cyberbullying perpetration, reinforcing online behaviors, and passive bystanding online behaviors. These findings underscore the importance of how an individual's level of moral disengagement is associated not only with cyberbullying perpetration, but other participant role behaviors online.

Code Availability SPSS software and R were used for analyses.

Declarations

Ethics Approval The questionnaire and methodology for this study was approved by the Human Research Ethics committee of Northern Illinois University.

Consent to Participate Informed consent was obtained from all individual participants included in the study.

Consent for Publication Consent to publish was actively granted by the school and passively by the participants.

Conflict of Interest The authors declare no competing interests.

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