Chapter 6

Can Emotion Regulation Serve as a Tool in Combating Cyberbullying?

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Abstract

The current study examined the role of emotion regulation in the relationship between being bullied (i.e., victimization) and becoming a cyberbully. We hypothesized that negatively regulating feelings of victimization-based anger and frustration would increase the effect of anger on cyberbullying behavior. In addition, we expected that positively regulating these emotions would result in a decrease in the effect of anger on cyberbullying behavior. These hypotheses were tested using longitudinal data (N = 1005; three waves during one school year). Using Structural Equation Modeling, the results showed that applying negative emotion regulation increased the effect of anger on cyberbullying at waves 1 and 2, but not across waves. Furthermore, positive emotion regulation did not decrease the effect of anger on cyberbullying behavior. This study indicates that discouraging adolescents to negatively regulate their anger might result in a decrease in cyberbullying rates, at least in the short run.

Keywords:
cyberbullying, victimization, anger and frustration, emotion regulation, longitudinal

Can Emotion Regulation Serve as a Tool in Combating Cyberbullying?

A large body of research evidences the worrisome fact that adolescents who have been bullied (online or offline) tend to become cyberbullies themselves (Bauman, 2010; Den Hamer & Konijn, in press; Den Hamer, Konijn, & Aartsen, under review; Den Hamer, Konijn, & Keijer, 2014; Slonje, Smith, & Frisén, 2013; Smith et al., 2008; Wright & Li, 2012, 2013). One way to explain this relationship is that a victimized adolescent gets angry and frustrated and starts to cyberbully others, assumingly in search for retaliation or a sense of power (cyberbullying as retaliation and power instrument: Hinduja & Patchin, 2014; König, Gollwitzer, & Steffgen, 2010; Patchin & Hinduja, 2010; Sontag, Clemans, Graber, & Lyndon, 2010; Ybarra & Mitchell, 2004). Indeed, research shows that anger mediates the relation between being victimized and performing acts of cyberbullying (Ak, Özdemir, & Kuzucu, 2015; Den Hamer et al., 2014; Den Hamer & Konijn, 2015; Wright & Li, 2012, 2013). Moreover, anger is one of the main predictors of cyberbullying behavior (Gradinger, Strohmeier, Schiller, Stefanek, & Spiel, 2012; Lonigro, Schneider, Laghi, Baiocco, Pallini, & Brunner, 2014; Patchin & Hinduja, 2010). In addition, research shows that adolescents who feel angry or frustrated experience an increased attraction towards media with antisocial and risk behavior content (Arnett, 1996; Flammer & Schaffner, 2003; Olson et al., 2007; Olson, Kutner, & Warner, 2008; Plaisier & Konijn, 2013). This reinforces the effect of anger on cyberbullying behavior, because exposure to antisocial media content stimulates cyberbullying behavior (Calvete, Orue, Estévez, Villardón, & Padilla, 2010; Chang et al., 2014; Den Hamer et al., 2014; Den Hamer & Konijn, 2015, in press; Den Hamer, Konijn, & Aartsen, under review; Dittrick, Beran, Mishna, Hetherington, & Shariff, 2013; Fanti, Demetriou, & Hawa, 2012; Lam, Cheng, Liu, 2013). In previous studies, we integrated these lines of thought in the Cyclic Process Model, in which a victimized adolescent gets angry, turns to media with antisocial and risk behavior content, which subsequently reinforces performing acts of cyberbullying behavior. Since cyberbullies often become victims again, these adolescents get wind up in a cyclic loop of being victimized, becoming a cyberbully and being bullied again. Empirical support for the Cyclic Process Model was found in both cross-sectional and longitudinal studies (Den Hamer et al., 2014; Den Hamer & Konijn, in press; Den Hamer, Konijn, & Aartsen, under review).

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Since anger plays such an important role in the relation between victimization and cyberbullying behavior – either or not reinforced by exposure to media with antisocial and risk behavior content - we argued that adolescents may differ in how they cope with anger and how this affects their cyberbullying behavior. In the current study, we investigate whether adolescents who negatively regulate their anger are more at risk to become cyberbullies after being victimized than adolescents who positively regulate their anger. We expected that the effect of anger on cyberbullying behavior will be stronger for adolescents who apply negative emotion regulation strategies (H1), whereas applying positive strategies will reduce the effect of anger on cyberbullying behavior (H2). These hypotheses are tested using longitudinal data. In the following, we elaborate on the hypotheses and present the used methodology and results of the study.

The Cyclic Process Model and Emotion Regulation

The main goal of our research is to understand why adolescents perform cyberbullying behavior and how we can prevent this behavior. The Cyclic Process Model explains how bullied adolescents could become cyberbullies. According to the Cyclic Process Model, a victimized adolescent experiences heightened levels of anger, turns to media with antisocial and risk behavior content (possibly to vent this anger), and stimulated by their anger and media exposure, are inclined to perform cyberbullying behavior (for a detailed explanation of the Cyclic Process Model, see Den Hamer et al., 2014; Den Hamer & Konijn, in press; Den Hamer, Konijn, & Aartsen, under review). The current study investigates whether we can differentiate among adolescents in being more or less susceptible. In particular, we investigated the role of emotion regulation strategies. Emotion regulation strategies aim to alter unpleasant emotions after a negative experience (such as being bullied). Or, as Garnefski and Kraaij put it, emotion regulation strategies are "conscious, mental strategies individuals use to handle the intake of emotionally arousing information" (Garnefski & Kraaij, 2014, p. 1154). Negative emotion regulation strategies are blaming others or oneself, constantly reminiscing the stressful event (*rumination*) or thinking about how terrible the event was (*catastrophizing*). Positive emotion regulation strategies are accepting the situation, putting things into perspective, refocusing on positive things, trying to learn from the situation (*positive reappraisal*) and refocusing on what to do next. How adolescents regulate their emotions after experiencing a stressful event affects their well-being, somatic complaints (such as headaches), stress

level, depression and anxiety level (Feinstein, Bhatia, & Davila, 2014; Garnefski & Kraaij, 2014; Kraaij et al., 2003; Machmutow, Perren, Sticca, & Alsaker, 2012; Martin & Dahlen, 2005; Miers, Rieffe, Terwogt, Cowan, & Linden, 2007; Völlink, Bolman, Eppingbroek, & Dehue, 2013).

Research showed that both bullies and victims of bullying often use ineffective coping or emotion regulation strategies (Andreou, 2001; Bijttebier & Vertommen, 1998; Camodeca & Goossens, 2005; Mahady Wilton, Craig, & Pepler, 2000; Rieffe, Camodeca, Pouw, Lange, & Stockmann, 2012; Spence, De Young, Toon, & Bond, 2009). Children who experience problems in regulating their anger show even increased levels of victimization over time (Spence et al., 2009). Although not much is known yet about the effect of maladaptive emotion regulation strategies on performing acts of cyberbullying behavior, one study showed that adolescents who find themselves less able to use and regulate emotions are more at risk to become cyberbullies (Baroncelli & Ciucci, 2014). Furthermore, research focusing on traditional bullying showed that one of the main predictors of both being a traditional bully and a victim of bullying is the inability to deal with feelings of anger (Candelaria, Fedewa, & Ahn, 2012; Champion, 2009; Lonigro et al., 2014; Lovegrove, Henry, & Slater, 2012). Since anger is an important predictor of cyberbullying behavior (Den Hamer et al., 2014; Den Hamer & Konijn, in press; Den Hamer, Konijn, & Aartsen, under review; Gradinger et al., 2012; Lonigro et al., 2014; Patchin & Hinduja, 2010), it is therefore pivotal to know whether the way adolescents regulate their anger affects their cyberbullying behavior. In this respect, Lonigro et al. (2014) suggest that anger-management programs could be an effective manner to reduce prevalence rates of both traditional bullying and cyberbullying behavior.

Following the above mentioned line of reasoning, we expected that applying negative (maladaptive) emotion regulation strategies will enhance the effect of anger on cyberbullying behavior, whereas using positive (adaptive) emotion regulation strategies will reduce this effect. Therefore, our hypotheses read as follows:

H1: The use of negative emotion regulation strategies increases the effect of anger on cyberbullying behavior.

H2: The use of positive emotion regulation strategies decreases the effect of anger on cyberbullying behavior.

Method

Participants and procedure. A total of 1005 adolescents participated in the study, located at one school (with two subdivisions), and aged between 11 and 17 (M_{age} = 13.43; SD_{age} = 1.06). The three waves were spread out during one school year, with about two to three months in between waves (51% girls $M\text{-}age_{wave1}$=13.43, $SD_{age\text{-}1}$=1.06; 51% girls; $M\text{-}age_{wave2}$=13.62, $SD_{age\text{-}2}$=1.07; 51% girls; $M\text{-}age_{wave3}$=13.89, $SD_{age\text{-}3}$=1.09; 52% girls). Missings were handeld according to Hotdeck Imputation (Myers, 2011), and data were imputed with the decks of gender, age, and grade. Not all adolescents participated on each wave, because of other school activities, sickness, and external internships (n_{wave1}=792; n_{wave2}=740; n_{wave3}=762; average response rate of 76.13%).

Participants attended first (37.5%, aged around 12), second (aged around 13), or third (aged around 14) grade. The majority of the participants was White Caucasian (60.2%), but also other ethnicities were represented in the sample; Turkish (20.3%), Surinam (4.9%), Moroccan (1.9%), and other backgrounds (12.7%). Both parents and adolescents were informed about our studies, several weeks in advance and asked for consent in accordance with institutional ethical guidelines. Parents could indicate if they did not want their child to participate and the adolescents could refuse to participate. We received 100% passive consent from the parents and none of the adolescents refused to participate. Participants completed the paper-pencil questionnaire during one class hour, with tables in exam position. Participants could ask for support at any time.[5]

Measures. For victimization, anger, cyberbullying behavior, and media exposure, Likert-type items with five-point rating scales were used (1 = never, 2 = incidentally, 3 = several times, 4 = often, and 5 = very often). The rating scales of the emotion regulation strategies also ranged from 1 (totally disagree) to 5 (totally agree).

Victimization. The victimization measure consisted of 12 items; three items reflecting offline victimization and a 9-item version of the victimization factor of the Cyberbullying Questionnaire (Calvete et al., 2010; adjusted to modern smartphone technology in Den Hamer et al., 2014). Sample items are "How often are you being hit, kicked, pushed, or locked-up?" and "How often has someone wrote embarrassing jokes, rumors, gossip, or comments about you

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[5]   The longitudinal data described in this study was also used in Chapters 4 and 5.

on the Internet?". After inspection of the inter-item correlations and reliability checks, one of the items was discarded, because only 1% of the respondents indicated to have ever experienced this (i.e., "How often has someone made a video or a cell phone picture of you while you performed some kind of sexual behavior?"). The resulting 11-items showed to have good internal consistency (Cronbachs α wave 1 = .82, *M* = 1.15, *SD* = 0.28; Cronbachs α wave 2 = .81, *M* = 1.15, *SD* = 0.27; Cronbachs α wave 3 = .90, *M* = 1.21, *SD* = 0.50). Items were summed and averaged to create mean index scores for victimization.

Anger. Anger was measured by the 10-item anger and frustration scale of Patchin and Hinduja (2010). A sample item is "How often do you stay mad at someone who hurts you?". The scale showed to be reliable (Cronbachs α wave 1 = .86, *M* = 2.25, *SD* = 0.80; Cronbachs α wave 2 = .85, *M* = 2.28, *SD* = 0.79; Cronbachs α wave 3 = .87, *M* = 2.27, *SD* = 0.83) and mean index scores were created.

Cyberbullying behavior. An 8-item version of the perpetrator factor of the Cyberbullying Questionnaire (Calvete et al., 2010), was used to measure cyberbullying behavior. A sample item is "How often have you recorded a video or taken cell phone pictures while someone hit or hurt another person, or have you send these recorded images to other people?". The scale showed to be reliable on all waves (Cronbachs α wave 1 = .80, *M* = 1.08, *SD* = 0.24; Cronbachs α wave 2 = .86, *M* = 1.11, *SD* = 0.30; Cronbachs α wave 3 = .91, *M* = 1.19, *SD* = 0.55) and mean index scores were created.

Media exposure. Exposure to media with antisocial and risk behavior content was measured using the Content-based Media Exposure Scale (C-ME; Den Hamer et al., 2014). The antisocial and risk behavior factor of the C-ME consists of a total of 8 items. A sample item is "How often do you watch people who drink a lot of alcohol (*on the Internet/TV/DVD/in games/mobile phone*)?". On all waves, the scale showed to be reliable (Cronbachs α wave 1 = .89, *M* = 2.31, *SD* = 0.91; Cronbachs α wave 2 = .89, *M* = 2.17, *SD* = 0.82; Cronbachs α wave 3 = .90, *M* = 2.31, *SD* = 0.92) and mean index scores were created.

Emotion regulation strategies. The 36-item version of the Cognitive Emotion Regulation Questionnaire was used to measure how participants responded to unpleasant and stressful events (CERQ; Garnefski, Kraaij, & Spinhoven, 2001). The CERQ consists of 9 subscales (each measured with 4 items); i.e., *self-blame, other-blame, rumination, catastrophizing, putting into perspective, positive refocusing, positive reappraisal, acceptance* and *refocusing on planning*. All items are created to be easily understood by participants from the age of 12 years and

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older (Garnefski & Kraaij, 2006). The nine subscales were divided into two styles of coping with stressful events: positive versus negative strategies (based on Garnefski et al., 2001; Martin & Dahlen, 2005). The positive strategies consisted of *putting into perspective, positive refocusing, positive reappraisal, acceptance* and *refocusing on planning*, whereas *self-blame, other-blame, rumination,* and *catastrophizing* reflected negative strategies.

A Principal Component Analysis with oblimin rotation of the subscales confirmed the distinction between positive and negative strategies on all waves. However, on wave 1, self-blame showed to load on both the positive and the negative component (with a difference in loadings of .09). Therefore, self-blame was discarded only from wave 1, resulting in a perfect simple structure of positive and negative emotion regulation strategies. The component containing positive strategies showed to be reliable on all waves (Cronbachs α wave 1 = .83, M = 2.81, SD = 0.78; Cronbachs α wave 2 = .85, M = 2.77, SD = 0.79; Cronbachs α wave 3 = .86, M = 2.50, SD = 1.05), as was the component with negative strategies (Cronbachs α wave 1 = .66, M = 2.23, SD = 0.70; Cronbachs α wave 2 = .76, M = 2.20, SD = 0.65; Cronbachs α wave 3 = .77, M = 1.99, SD = 0.89). It was adivsed to use the positive and negative strategies measures for the hypotheses testing separately, since positive correlations between the two coping styles (r at wave 1 = .21, p < .001; r at wave 2 = .17, p < .001; r at wave 3 = .57, p < .001) indicated overlap between the coping styles. That is, some participants used both coping styles (especially at wave 3).

Results
Preliminary Analysis
On most waves, emotion regulation was associated with adolescents' levels of anger: on each wave, negative emotion regulation was associated with an increase in anger, whereas positive emotion regulation was associated with a decrease in anger, though not on wave 3 for positive emotion regulation (negative strategies: r_{wave1} = .38, p < .01; r_{wave2} = .51, p < .01; r_{wave3} = .34, p < .01; positive strategies: r_{wave1} = -.08, p < .05; r_{wave2} = -.13, p < .01; r_{wave3} = .02, p = .54).

Negative Emotion Regulation Strategies and Anger on Cyberbullying Behavior
In order to test the hypotheses, pathmodels using Structural Equation Modeling (SEM) were created (Mplus, version 6.12). To test H1 (The use of negative emotion regulation strategies increases the effect of anger on cyberbullying
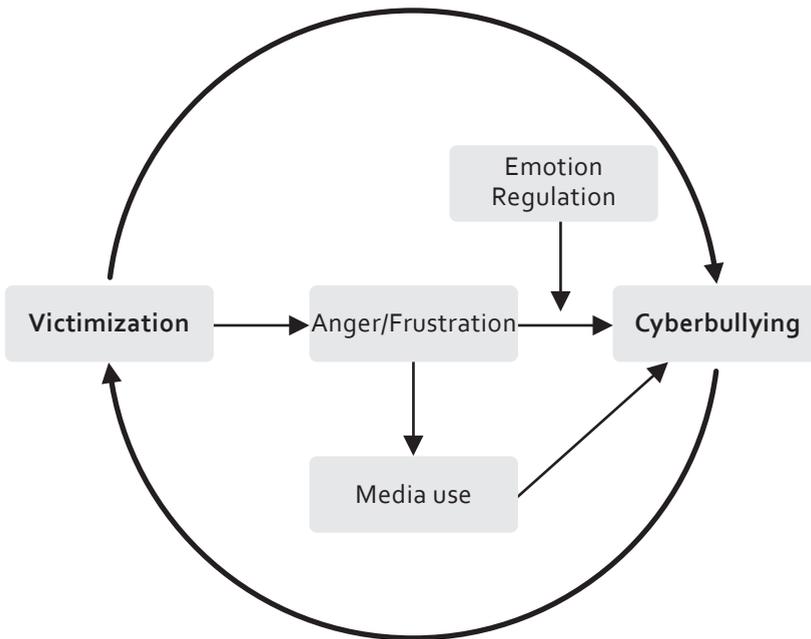
Figure 1. The Cyclic Process Model and Emotion Regulation

behavior), the Cyclic Process Model was expanded with the variable negative emotion regulation. An interaction term was created (in Mplus) between anger and negative emotion regulation and its effect was tested on cyberbullying behavior.[6] For a visualization of the model, see Figure 1. First, this model was tested within waves, and second, across waves (in the longitudinal model: victimization, anger, and negative emotion regulation measured at wave 1, media exposure measured at wave 2, and cyberbullying behavior at wave 3; in accordance with the longitudinal model in Den Hamer et al., under review). In the longitudinal model, cyberbullying behavior at wave 3 was controlled for cyberbullying behavior at waves 1 and 2. Robust Maximum Likelihood (RML) estimation was used and goodness of fit was assessed by the Chi Square, Root Mean Error of Approximation (RMSEA), the Comparative Fit Index (CFI), and the

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[6]   Following the recommendation of Jeremy Dawson, standardized variables were used to test for interaction effects (http://www.jeremydawson.co.uk/slopes.htm). Realizing that not all readers agree with using standardized variables, we repeated the analyses with unstandardized variables, which resulted in the same conclusions.

Standardized Root-Mean-Square Residual (SRMR). A good fit is indicated by an insignificant Chi Square (although with large samples such as this one, the Chi Square is often significant), an RMSEA of < .06 (an RMSEA of < .10 indicates an adequate fit), a CFI of > .95 and a SRMR of < .08 (Hu & Bentler, 1999).[7]

At all waves, the model showed to fit the empirical data well: wave 1: $\chi^2(2)$=2.12 (p=.35), RMSEA=.01 (.00-.06), CFI=1.00, and SRMR=.01, wave 2: $\chi^2(2)$=6.49 (p=.04), RMSEA=.05 (.01-.10), CFI=.99, and SRMR=.02; wave 3: $\chi^2(2)$=7.61 (p=.02), RMSEA=.05 (.02-.10), CFI=.96, and SRMR=.02. As for the interaction effect of anger and negative emotion regulation on cyberbullying, this effect was significant at both wave 1 and wave 2, but not significant at wave 3 (wave 1: β = .13, p < .01; wave 2: β = .11, p < .05; wave 3: β = .07, p = .29). At wave 1 and 2, negative emotion regulation increased the effect of anger on cyberbullying behavior.

Although the longitudinal model also fitted the data very well ($\chi^2(9)$=8.29 (p=.50), RMSEA=.00 (.00-.03), CFI=1.00, and SRMR=.02), the interaction effect of anger and negative emotion regulation strategies on cyberbullying behavior was not significant (β = -.02, p = .94). Negatively regulating anger did not result in an increase in cyberbullying behavior over a longer period of time.

In order to visualize the effect found at wave 1 and 2, the interaction analysis was repeated in SPSS, this time only with anger, negative emotion regulation, and cyberbullying behavior (i.e., without the other variables of the Cyclic Process Model; victimization and media exposure). Figure 2 visualizes the interaction effect at wave 1 (with wave 2 having similar results). As can be seen, the effect of anger on cyberbullying is higher for those individuals high in negative emotion regulation than for those individuals low in negative emotion regulation. Note that when testing the interaction effect in SPSS, the effect was also significant at wave 3 (t = 3.79, p < .001, $b(SEb)$ = 0.06(0.02), β = .12). Apparently, when not controlling for victimization and media exposure, using negative emotion regulation resulted in a stronger effect of anger on cyberbullying behavior.

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[7]   Since the computational burden for testing interaction effects in pathmodels with latent variables is high when one has five variables, such as the current model, we decided to only use observed variables in testing the pathmodel. Note that the measurement models of each wave were tested and showed to have a good fit. An explanation of this heavy computational burden can be found at https://www.statmodel.com/download/MuthenMplusWorkshop1.pdf
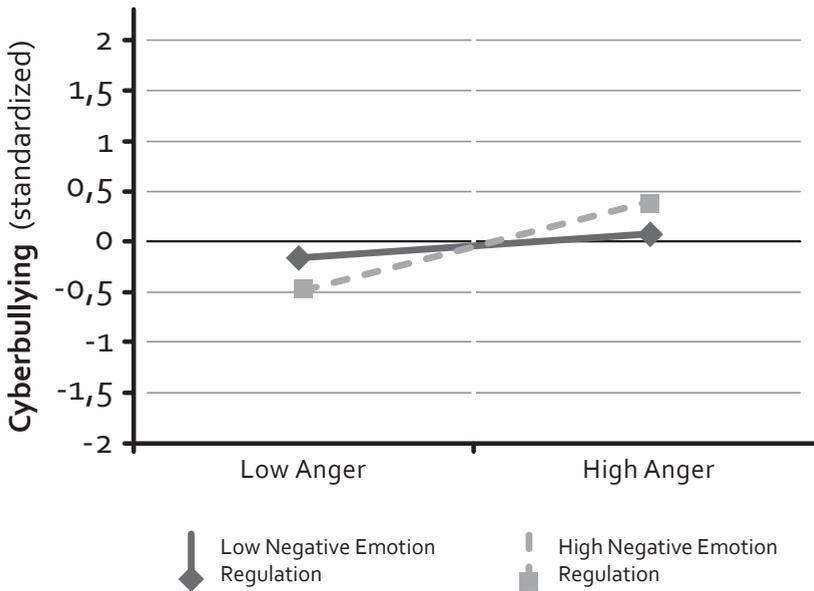
Figure 2. The Interaction Effect of Negative Emotion Regulation and Anger on Cyberbullying Behavior

Hypothesis 1 (The use of negative emotion regulation strategies increases the effect of anger on cyberbullying behavior) was partly supported: although no effect was found at wave 3 and across waves, the interaction effect was significant at wave 1 and 2. Negative emotion regulation reinforced the effect of anger on cyberbullying behavior. Since the effect was not found longitudinally, this indicates that negative emotion regulation possibly only affects the association between anger and cyberbullying at a short period of time, but not on the longer run.

Positive Emotion Regulation Strategies and Anger on Cyberbullying Behavior

In order to test hypothesis 2 (The use of positive emotion regulation strategies decreases the effect of anger on cyberbullying behavior), new pathmodels were created, this time with positive instead of negative emotion regulation. Again, the model was first tested within waves and second, longitudinally across waves. Within waves, the model fitted the data well. At wave 1: $\chi^2(2)=3.51$ ($p=.17$), RMSEA=.03 (.00-.07), CFI=.99, and SRMR=.02, wave 2: $\chi^2(2)=0.15$

(p=.93), RMSEA=.00 (.00-.02), CFI=1.00, and SRMR=.00; wave 3: χ^2(2)=8.65 (p=.01), RMSEA=.06 (.02-.10), CFI=.94, and SRMR=.03. The longitudinal model also showed a good fit: χ^2(9)=9.17 (p=.42), RMSEA=.00(.00-.04), CFI=1.00, and SRMR=.03. However, the interaction effect of positive emotion regulation and anger on cyberbullying was not significant, not within waves, nor across waves (wave 1: β = .04, p = .40; wave 2: β = .01, p = .84; wave 3: β = .05, p = .45; longitudinal: β = .03, p = .87). Therefore, H2 was not supported: apparently, the use of positive emotion regulation did not result in a decrease of the effect of anger on cyberbullying behavior.

Discussion

The aim of this study was to investigate how we can prevent bullied adolescents to become cyberbullies and how emotion regulation can play a role in the process. The current study examined whether adolescents' way of dealing with the victimized-induced anger affected their cyberbullying behavior. The findings showed that negative emotion regulation increased the effect of anger on cyberbullying behavior (at waves 1 and 2). Those adolescents that applied negative strategies to cope with their anger performed more cyberbullying behavior than those that did not. However, this interaction effect was not significant in the longitudinal model across waves, indicating that the effect might only take place on the short run, and not over a longer period of time. In contrast to our expectations, applying positive emotion regulation strategies did not reduce the effect of anger on cyberbullying behavior.

The Cyclic Process Model provides theoretical knowledge about the underlying processes that take place when victimized adolescents become cyberbullies (Den Hamer et al., 2014; Den Hamer & Konijn, 2015; Den Hamer, Konijn, & Aartsen, under review). The current study expanded the Cyclic Process Model by showing that especially those adolescents who applied negative strategies to regulate their victimization-based anger were inclined to perform cyberbullying behavior.[8] Our findings are in line with former research showing that adolescents who are less able to regulate their emotions are more at risk to become cyberbullies (Baroncelli & Ciucci, 2014), and studies that show

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[8]   Note that including negative emotion regulation in the Cyclic Process Model did not affect the conclusions drawn in our previous study in which the same data was used to test the Cyclic Process Model (Den Hamer, Konijn, & Aartsen, under review).

that the inability to deal with feelings of anger predicts bullying behavior (i.e., traditional bullying behavior: Candelaria et al., 2012; Champion, 2009; Lonigro et al., 2014; Lovegrove et al., 2012).

The main implication of our research for both scholars and practitioners is in line with the recommendation of Lonigro et al. (2014), who suggested that anger-management programs could possibly be effective in reducing the prevalence of both traditional and cyberbullying behavior. The current study provides some support for this suggestion. Our results indicate that discouraging adolescents to negatively regulate their anger might result in a decrease in cyberbullying rates, at least in the short run. Consistent with this finding, one would expect that positively regulating anger leads to a reduction in cyberbullying behavior. However, our results showed that applying positive emotion regulation strategies did not affect the relationship between anger and cyberbullying behavior. This indicates that possibly nót negatively regulating anger is not the same as positively regulating anger. Future research is needed to further investigate this matter.

Limitations

Like any study, our research has several limitations. First, we used a self-report instrument to measure cyberbullying behavior, which could have led to an underestimation of the cyberbullying rates because of social desirability in answering the sensitive questions (cf. Den Hamer et al., 2014; Den Hamer & Konijn, 2015, in press; Den Hamer, Konijn, & Aartsen, under review). Although this limitation of using self-reports for measuring cyberbullying behavior is discussed among many scholars (Dehue, Bolman, & Völlink, 2008; Gradinger et al., 2012; Kowalski & Limber, 2007; Schoffstall & Cohen, 2011; Walrave & Heirman, 2011), solutions for this problem have not been found yet. Perhaps, including a social desirability measure in future studies to control for this possible confound may be helpful.

Such a social desirability measure might also shed some light on adolescents' emotion regulation. That is, the means for positive emotion regulation that we found in the current study were higher than those for negative emotion regulation (see *Method*). However, could the relatively high rates of positive emotion regulation be a result of a social desirability answering tendency? Although negative emotion regulation reinforced the effect of anger on cyberbullying behavior, according to our analyses, positive emotion regulation did not affect this relationship. It is unclear whether positive emotion regulation

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does actually not affect the relation between anger and cyberbullying behavior and that the scores of positive emotion regulation were overestimated because of social desirable answering tendency. Such an argument would also explain why on each wave, a positive association was found between negative emotion regulation and positive emotion regulation (especially at wave 3, see *Method*). That is, it feels contra-intuitive that adolescents who often apply negative emotion regulation strategies would also be the ones who regularly apply positive strategies. Therefore, in future research, replication studies are needed in order to control for social desirability in answering patterns.

Conclusion

The current study examined whether emotion regulation could play a role in preventing victimized adolescents to become cyberbullies. Although the results suggest that positive emotion regulation does not reduce the effect of anger on cyberbullying behavior, negative emotion regulation does increase the effect of anger on cyberbullying. This indicates the need to teach adolescents positive alternatives for the negative emotion regulation strategies they are inclined to use in coping with feelings of anger and frustration. Hopefully, this will result in a decline in cyberbullying rates among adolescents.

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