

WHAT INFLUENCES CYBERBULLYING:  
A TEST OF GENERAL STRAIN THEORY

by

Rachel Kail

APPROVED BY SUPERVISORY COMMITTEE:

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Nicole Leeper Piquero, Chair

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Nadine Connell

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Bruce Jacobs

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Dedicated to my wonderful family.

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A TEST OF GENERAL STRAIN THEORY

by

RACHEL KAIL; BA, BS

THESIS

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Rachel Kail, MS  
The University of Texas at Dallas, 2016

Supervising Professor: Nicole Leeper Piquero, PhD

A great deal of research has evaluated the negative consequences of bullying victimization across traditional and online forms of bullying. However relatively little research has evaluated the potential causes for these negative interactions within the cyberbullying literature. Agnew's (1992) General Strain Theory provides a potential theoretical explanation for these negative online interactions. The purpose of this study was to extend the GST literature to a newly developed form of delinquent behavior and evaluate strain as a potential explanation of cyberbullying perpetration among a sample of approximately 150 college students. Results revealed that increased levels of strain were associated with higher engagement in cyberbullying behavior. Further results are discussed.

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## **CHAPTER 1**

### **INTRODUCTION**

Since the development of the technological world, reliance upon social media, the Internet, and constant connectivity have been at an all-time high. Today, American teenagers spend almost nine hours a day consuming some form of media (Common Sense Media, 2015). Children between the ages of 8 and 12 years old share similar patterns, spending approximately six hours a day using some sort of technology, whether it be the phone, computer, or gaming system (Common Sense Media, 2015). Unfortunately, not all of the technological interactions with other people are as positive as they should be. Approximately 30% of school-aged children report experiencing some form of cyberbullying while online (Patchin & Hinduja, 2006). Defined as the “willful and repeated harm inflicted through the medium of electronic text” (Patchin & Hinduja, 2006, p.152), cyberbullying has garnered a great deal of attention both through media outlets and academic scrutiny due to growing reports of cyberbullying’s relationship with depression, aggression, anxiety, suicidal thoughts, and many other negative outcomes (Tokunaga, 2010; Kowalski & Limber, 2013).

Unfortunately, not a great deal is known about what influences an individual’s decision to engage in cyberbullying while online. The current study proposes that when individuals experience an increased level of strain in their lives, they are more likely to engage in cyberbullying behaviors.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **Cyberbullying**

Research involving cyberbullying did not emerge until relatively recently. Instead, it developed out of necessity to address a new and unique form of bullying that evolved from the use of technology, social media, and other forms of online communication that were previously unavailable (Hinduja & Patchin, 2007). Despite its recent development, the literature discussing cyberbullying has addressed issues in many different areas.

Currently, approximately 30% of children under the age of 17 report being the victim of some form of cyberbullying while online (Patchin & Hinduja, 2006). However, prevalence has been reported to range anywhere from 10% to 58% depending on the sample and definition of cyberbullying used by the researchers (Slonje & Smith, 2008; Beran & Li, 2008; Tokunaga, 2010). Part of the difficulty in defining and operationalizing exactly what constitutes “cyberbullying” comes from the various nuances and types of cyberbullying that different age groups can experience (Doane et al., 2013; Ybarra et al., 2012; Slonje & Smith, 2008).

Patchin and Hinduja (2006, p.152), define cyberbullying as “willful and repeated harm inflicted through the medium of electronic text.” With this broad definition, they suggest that although cyberbullying may pose its own unique challenges, it is simply a new form of bullying occurring over a different platform and can be treated and evaluated in much of the same manner as the bullying we see in schools (Patchin & Hinduja, 2006). They argue that this definition

encapsulates many of the constructs associated with traditional bullying, including repetition and intentional behavior that causes harm (Patchin & Hinduja, 2011). Patchin and Hinduja (2006) also suggest that many of the characteristics seen in traditional bullying, such as power differentials, can also be found in online adaptations for cyberbullying. Therefore, because of the similar behavioral and emotional outcomes and overlap seen between the characteristics of online bullies and traditional bullies (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004), research has begun to argue that cyberbullying and traditional bullying need to be looked at in tandem.

Although cyberbullying is primarily discussed as a problem associated with adolescent populations, there is some literature suggesting that traditional and cyberbullying behaviors extend beyond the realm of middle and high school aged students. MacDonald and Roberts-Pittman (2010) recently found that almost 22% of college students reported being the victim of cyberbullying. Furthermore, Schenk and Fremouw (2012) found that those college students who reported being victims of cyberbullying behavior had significantly lower mental health markers, including increase levels of suicidal ideations and higher levels of depression and anxiety. These findings may indicate that regardless of the age group this behavior is occurring within, the emotional and behavioral outcomes of cyberbullying victimization appear to be quite similar (Schenk, A. M., & Fremouw, 2012 ; Tokunaga, 2010).

For example, studies evaluating victimization by traditional bullying and cyberbullying have revealed that these two forms of bullying seem to have very similar outcomes among both middle school and high school students (Hinduja & Patchin, 2010; Schneider et al., 2012). In a synthesis of the research, Tokunaga (2010) found that individuals who experience cyberbullying

often have increased behavioral and emotional problems including: more school absences, lower grades, and higher levels of social anxiety, anger, and depression. These outcomes mirror those of traditional bullying victimization almost exactly (Gini & Pozzoli, 2009); unfortunately, because it is likely that a victim of cyberbullying is also experiencing traditional bullying, it is difficult to disentangle the outcomes between these two forms of bullying (Schneider et al., 2012; Beran & Li, 2008).

Further similarities between traditional bullying and cyberbullying can also be found in those that tend to engage in the behavior. Li (2007) reported that approximately 30% of middle school students who engaged in traditional bullying at school were also found to be cyberbullies while online. This suggests that we may be able to understand why people engage in cyberbullying by looking at the literature that discusses why individuals engage in traditional bullying. Kowalski and Limber (2007) also found that cyberbullies and traditional bullies tend to both report feelings of depression, anxiety and other similar characteristics. Moreover, cyberbullying and traditional bullying seem to share the finding that bullies are often also the victims of bullying behavior, suggesting that the bully/bully-victim paradigm that we see in traditional bullying, continues to hold true when evaluating cyberbullying (Kowalski & Limber, 2013; Li, 2007).

Clearly cyberbullying shares many of the core components seen in traditional bullying. They both utilize willful and repetitive behavior while exploit power differentials between the bully and the victim (Patchin & Hinduja, 2011; Patchin & Hinduja, 2006). However, cyberbullying has several starkly different characteristics. Perhaps the most notable is the potential for anonymity (Li, 2007). For example, Yabrra and Mitchell (2004) found that while

only 31% of victims knew who their online harasser was, 84% of cyberbullies knew their victim/target. This inability to name an aggressor and the public nature of cyberbullying has been perceived as a worse, or more hurtful situation than that of traditional bullying (Sticca & Perren, 2013).

In addition to occurring in a public, sometimes anonymous environment, the techniques used to bully individuals have evolved in order to be adapted to an online environment (Doane et al., 2013; Patchin & Hinduja, 2006). Doane et al.'s (2013) research sought to unpack and identify these new methods and techniques and resulted in creating a cyberbullying questionnaire that looked at cyberbullying behavior across 4 different purposes or goals: (1) malice, (2) public humiliation, (3) unwanted contact, and (4) deception. Several of these categories reflect the different forms of traditional bullying. Malice, in particular can be seen in traditional bullying in the form of calling someone mean names, being rude, or teasing (Doane et al., 2013). However, because the threat of physical intimidation is no longer present in cyberbullying exchanges, different forms of harassment developed including sending sexual pictures and threats, to sharing private pictures or information on a public space (Doane et al., 2013). Therefore, it should be noted that Doane et al.'s (2013) questionnaire was developed using a sample of college undergraduates, allowing for the ability to ask potentially sensitive questions that may not be deemed acceptable for adolescent samples.

In order to begin to explain what can lead to an individual engaging in cyberbullying, a look at the literature on traditional bullying is required. Bowers, Smith, and Binney (1992) found that children who perceived lower family cohesion were more likely to engage in traditional bullying at school. Kowalski and Limber (2013, p.14) also found that children who engage in

bullying behaviors report higher levels of depression and anxiety and suggest that these negative outcomes may be both “consequences of and precursors to bullying.” Therefore, because these findings are related to negative emotions and stress or strain, the current study proposes that Agnew’s (1992) General Strain Theory may be able to offer a potential explanation for individuals’ engagement in cyberbullying behavior.

### **General Strain Theory**

Strain theories developed from the idea that people are pressured into crime (Agnew, 1992). This school of thought argues that individuals resort to delinquent behavior when they are unable to achieve certain goals. For example, classical strain theories (Merton, 1938; Cloward & Ohlin, 1960) primarily discussed and evaluated the idea that an individual’s inability to achieve monetary success or middle class status would lead to criminal behavior. However, those that experience this pressure or strain may not always resort to delinquent or criminal behavior as a coping method and may instead reject traditional goals, or find new and inventive ways to achieve them (Merton, 1938). Unfortunately, classical strain theories eventually fell under heavy criticism. Although classical strain theories were readily applicable to property crimes or crimes within lower socioeconomic statuses, explaining why crime occurred within middle-class populations proved difficult (Tittle & Meier, 1990).

Agnew (1992) revitalized strain theory, effectively making it much broader in scope and generalizable to many more forms of criminal and delinquent behavior. In his reconceptualization, he identified three different forms of strain: (1) failure to achieve goals, (2) the removal of positively valued stimuli, and (3) the introduction of negative stimuli (Agnew,

1992). The introduction of these two new components to strain allowed him to encapsulate differing experiences that could potentially result in strain or stress.

The failure to achieve goals is a familiar concept that was carried over from discussions of classical strain theories (Merton, 1938). Agnew (1992) simply allowed the failure to achieve a goal to extend beyond the realm of economic and social status gains. Instead, he defined it as the disjuncture between an individual's aspirations and their actual achievements (Agnew, 1992). This meant that sources of strain could come from everywhere and could range from college students experiencing lower academic outcomes than those they had aspired to (Ford & Schroeder, 2009), to the more commonly discussed inability to gain employment and blocked economic opportunities (Baron & Hartnagel, 1997). This development opened up a wide range of possibilities for what could potentially cause strain.

Furthermore, Agnew (1992) introduced the concept of the removal of positive stimuli and the presentation of negatively valued stimuli to the strain literature. He described potential examples of these two new factors as the death or illness of a serious friend, parental divorce, or the experience of child abuse and criminal victimization, respectively (Agnew, 1992).

Since Agnew (1992) first introduced GST, he has outlined several different forms and characteristics of strains that are more likely to result in delinquent behavior. For example, Agnew (2001) suggests that strains that are perceived as unjust and high in magnitude are more likely to result in an individual resorting to criminal behavior as a coping method. Furthermore, he identifies strains such as negative life events and negative relationships with adults are more likely to result in delinquency than shortcomings in educational and occupational goals (Agnew, 2001).

Strain, however, does not always play a direct role in delinquent behavior. Instead, Agnew (1992) suggests that negative emotions may play a mediating role between strain and delinquency. Anger, disappointment, depression and fear, can all be the result of strain (Agnew, 1992). However, as Agnew (1992) describes and research has suggested, anger appears to be more influential and more likely to result in illegitimate coping methods (Broidy, 2001). This may be due to anger's connection with aggression (Agnew, 1992) and as an emotion that is directed outwards, whereas the other negative emotions have been described as self-directed (Jang, 2007).

Since Agnew's (1992) reconceptualization of strain theory, many different researchers have tested the concepts of GST, (e.g. Agnew & White, 1992; Broidy, 2001, Paternoster & Mazerolle, 1994), and it continues to hold a prominent role in the criminological literature. This is primarily due to the strengths associated with this theory and the implicated generalizability of Angew's (1992) reconceptualization.

For example, Broidy (2001) tested many of the core characteristics of GST and found support for many of Angew's (1992) hypothesized relationships. She found that each of GST's (Angew, 1992) three sources of strain were related to negative emotions and that anger was a common response when individuals experienced unfair goal blockage and stressful life events (Broidy, 2001). This anger was then significantly more likely to result in individuals engaging in illegitimate coping methods (Broidy, 2001). This lends support to Agnew's (1992) belief that negative emotions may play a mediating role in delinquency. Furthermore, strain has also been shown to have a direct effect on delinquency. For example, when evaluating GST, social control,

and the effects of delinquent peers, Paternoster and Mazerolle (1994), found that strain still played a direct role in delinquent behavior when controlling for other theoretical constructs.

In addition to growing empirical support, GST has also been applied to many different forms of delinquency including self-harm (Hay & Meldrum, 2010), drug use (Ford & Schroeder, 2009; Baron, 2004), and violent crime (Baron, 2004) and has begun to shed light on the gender (Broidy & Agnew, 1997; Jang, 2007) and ethnic (Jang, 2007; Pérez, Jennings, & Gover, 2008) differences in delinquent behavior.

### **Cyberbullying and General Strain Theory**

Because general strain theory has been shown to be associated with multiple types of delinquency (Hay & Meldrum, 2010; Ford & Schroeder, 2009; Baron, 2004) and across multiple age groups and genders (Jang, 2007; Ford & Schroeder, 2009), the current study aims to apply GST to an individual's engagement in cyberbullying behavior.

In addition to being an exceedingly versatile theory, GST was outlined as a general theory of crime that could be used to explain all forms of deviance. For this reason, Patchin and Hinduja (2011) argue that it could be used to explain traditional and cyberbullying behaviors by suggesting that individuals would engage in cyberbullying behavior as a form of "corrective action" for the strains they are exposed to by allowing them to experience a sense of power and control.

Although bullying is typically viewed and evaluated as a source of strain, Moon, Hwang and McCluskey (2011) evaluated General Strain Theory, Differential Association Theory, and a General Theory of Crime in relation to bullying behaviors among a sample of 13 year olds. While they found that that differential associations, strain and low self-control were all

associated with traditional bullying when evaluated on their own, only General Strain Theory “maintained significant explanatory power” when all three theories were evaluated in a single model (Moon, Hwang & McCluskey, 2011, p. 865). In a different analysis involving macro-level strain and traditional bullying and aggressive behavior in schools, anger was found to have a significant effect on conflict with peers (Brezina, Piquero, & Mazerolle, 2001).

Patchin and Hinduja (2011) followed this line of thought and looked at the relationship between experienced strain and its effect on school-aged children’s likelihood to engage in traditional and cyberbullying behaviors. Using a large data set comprised mostly of students age 10 to 16, they found that those students that reported experiencing strain or anger and frustration were significantly more likely to engage in both traditional bullying and cyberbullying (Patchin & Hinduja, 2011).

Considering Patchin and Hinduja’s (2011) findings alongside previous literature discussing the depression, frustration and anger often experienced by bullies, the relationship between strain, stress and engaging in cyberbullying is limited but encouraging. Additional research may be able to provide further support for this theoretical construct and negative online behavior. Therefore, the current study suggests that individuals that experience higher levels of strain and negative emotions would be more likely to engage in higher levels of cyberbullying behavior.

## **CHAPTER 3**

### **METHODS**

#### **Sample**

The data used in this study was obtained by surveying several criminology undergraduate classes at the University of Texas at Dallas during the end of the 2016 spring semester. The survey was reviewed and approved by the University of Texas at Dallas's IRB board and participants were informed that the survey was voluntary and anonymous in addition to being provided with a consent form detailing the purpose of the research. Participants then completed a short 15-minute survey while in class, evaluating them on their levels of strain, negative emotions, cyberbullying behavior, and basic demographic information. This resulted in a sample of 148 participants.

#### **Variables**

##### *Dependent Variable*

The measure of cyberbullying used in this study was adapted from Doane et al.'s (2013) perpetration scale within the Cyberbullying Experiences Survey. This scale examines cyberbullying across four different categories, including (1) public humiliation, (2) malice, (3) unwanted contact, and (4) deception. In order to ensure a comprehensive understanding of the sample's level of cyberbullying behavior, the core characteristics and items identified within each of Doane et al.'s (2013) four categories of perpetration were included in the survey. This resulted in a nine item measure that allowed the researcher to evaluate behaviors ranging from relatively

minor forms of cyberbullying (e.g. “Called another person mean names...”) to more severe forms of cyberbullying (e.g. “Threatened to use physical violence or hurt someone...”). Participants were asked to rate on a scale from 1 to 4, the number of times they had engaged in these types of online behaviors within the past six months, with the response of 1 indicating they had not engaged in a particular behavior, and 4 indicating they had engaged in that behavior five or more times. This was recoded to a scale of 0 to 3, with 0 indicating they had never engaged in cyberbullying and 3 indicating they had engaged in cyberbullying five or more times in the past six months. These nine items were averaged together in order to obtain a cyberbullying scale ranging from 0 to 3.

In addition to evaluating participants’ involvement in cyberbullying, this study was interested in evaluating the effect of potential anonymity associated with being behind a screen (Patchin & Hinduja, 2006; Li, 2007). Therefore, if a participant indicated that they had engaged in cyberbullying one or more times in the past six months, they were then asked to respond to two additional questions. The first question was to evaluate the potential disinhibition of being behind a computer screen and asked participants if they would have said or done the cyberbullying behavior they identified, in person, with a simple yes or no response. The second question was used to evaluate the level of familiarity between the cyber-bully and the cyber-victim, by asking them how well they knew individual that they had cyberbullied. Participants could choose from the following responses: *not well/never met (a), just met online (b), just met in person (c), knew well online (d), knew well in person (e)*.

### *Independent Variables*

Strain was measured by replicating the questionnaire used by Patchin and Hinduja (2011). This questionnaire utilized strains commonly experienced by adolescents and young

adults and focused on academic, relational and economic strains that would be applicable to a sample of undergraduates. It resulted in a nine item measure that asked participants to report the number of times they had experienced various sources of strain such as receiving a bad grade in class, or getting into an argument with a family member or friend within the past six months on a scale from 1 to 4, with 1 indicating that they had not experienced that source of strain, and 4 indicating they had experienced that source of strain five or more times in the past six months. This was later recoded to a scale of 0 to 3. Responses to these nine items were averaged together to obtain a measure of their average strain, ranging from 0 to 3. A complete list of the items measuring strain can be found in the Appendix.

Furthermore, the mediating variable of GST, negative affect, was evaluated by asking participants to rate how much they agreed with a statement evaluating their negative emotions on 10 items. Many of these questions were also pulled from Patchin and Hinduja's (2011) study and used a 1 to 4 scale ranging from "Strongly Disagree" to "Strongly Agree". These were later coded to range from 0 to 3 in order to make comparisons between the strain and negative affect variables. Responses to these 10 items were averaged together to obtain the negative affect scale and ranged from 0 to 3.

#### *Control Variables*

Because previous literature has suggested that individuals who are high in negative emotionality and low in constraint may be more likely to engage in delinquent behavior as a problem solving or coping method (Agnew et al., 2002), and that self-control may also play a role in bullying and cyberbullying behavior (Moon, Hwang & McCluskey, 2011), this research controls for the level of self-control. As such, participants were asked to complete the Grasmick

et al.'s (1993) self-control scale. This consisted of 24 items and had participants evaluate the associated statements on a scale from 1 to 4, with 1 corresponding to strongly disagree and 4 corresponding to strongly agree. These responses were then averaged in order to obtain a self-control scale ranging from 1 to 4.

Participants were also asked to report on how many times they had engaged in academic dishonesty within the past six months. This section of the survey was adapted from a questionnaire used to evaluate academic dishonesty in nursing schools (McCabe, 2009), however items that were not relatable to non-nursing school environments were not included. The resulting measure consisted of 10 items ranging from 1 to 4, with 1 indicating that they had never engaged in that form of academic dishonesty, and 4 indicating that they had engaged in academic dishonesty 5 or more times in the past 6 months.

In order to evaluate the level of victimization in relation to cyberbullying perpetration, a short 11-item victimization scale was used that reflected many of the questions seen in the cyberbullying section. It used the same Likert scale of 1 to 4, with 1 indicating no victimization in the six months, and 4 indicating five or more occurrences of victimization in the past six months. The final two questions also provided space for respondents to identify other forms of bullying or harassment they had experienced either online or in person.

Finally, participants were asked to report limited demographic information including age, gender, GPA, ethnicity and academic grade level.

## CHAPTER 4

### RESULTS

Table 1 presents the descriptive statistics. The sample was relatively evenly distributed with 49% of the sample being male and 45% white. The average age of the sample was approximately 23 years old ( $SD = 5.93$ ), and the average GPA was 3.32 ( $SD=0.52$ ).

**Table 1**  
Descriptive Statistics

	<i>M</i>	<i>SD</i>	<i>N</i>
<i>Demographic Variables</i>			
Age	23.31	5.93	144
White	0.45	0.50	143
Male	0.49	0.50	144
GPA	3.32	0.52	125
<i>Independent Variables</i>			
Strain	0.79	0.53	148
Negative Affect	0.96	0.48	148
Self Control	2.40	0.19	148
<i>Dependent Variable</i>			
Cyberbullying	0.16	0.31	148

In order to identify the percentage of the sample that had engaged in cyberbullying, each of the nine cyberbullying items were dichotomized, with 0 indicating that they had never engaged in cyberbullying and 1 indicating that they had engaged in that form of cyberbullying at least once in the past six months. This item analysis (Table 2) indicated that the most common form of the cyberbullying within the sample was name-calling and hurtful teasing. This is consistent with previous work on traditional and cyberbullying suggesting that name-calling and

hurtful teasing was the most commonly reported form of bullying (Patchin & Hinduja, 2011; Doane et al., 2013). Most notably, 38.4% of the sample reported having “called another person mean names, made fun of, or teased in a hurtful way online or over text” at least once in the past six months and approximately 46.6% of the sample indicated that they had engaged in at least one form of cyberbullying.

**Table 2**  
Dependent Item Prevalence Analysis

	%
Called another person mean names, made fun of, or teased in a hurtful way	38.4%
Sent inappropriate/nude photos to another person without their permission	7.4%
Threatened to use physical violence or hurt someone	8.8%
Told someone that I wished they would hurt themselves or that someone would hurt them	6.1%
Concealed or faked my identity in order to get private or personal information	7.5%
Shared someone’s private or personal information with the public online	9.5%
Shared private, personal, or sexually explicit photos of another person	6.9%
Spread false rumors about someone	3.4%
Targeted someone in some other mean, rude or inappropriate way	6.8%
<b>Total</b>	<b>46.6%</b>

Next, the relationship between strain and negative emotions was examined. Consistent with the theoretical framework, increased levels of strain were significantly associated with higher levels of negative emotions. There were no significant effects amongst any of the control variables. Results are presented in Table 3.

**Table 3**  
OLS Regression Analysis Predicting Negative Affect

	<i>Coef.</i>	<i>SE</i>
Strain	.211*	.089
Male	.053	.090
White	-.014	.089
Age	-.010	.006
GPA	.044	.092
Constant	.856*	.371

\* $p < .05$

Finally, the relationship between cyberbullying behaviors, strain, and negative affect, was examined. Results for Models 1, 2 and 3 can be found in Table 4.

**Table 4**  
OLS Regression Analysis Predicting Cyberbullying

	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>	
	<i>Coef.</i>	<i>SE</i>	<i>Coef.</i>	<i>SE</i>	<i>Coef.</i>	<i>SE</i>
Strain	.216**	.073	.203**	.072	.191*	.074
Negative Affect			.062	.057	.042	.055
Male	.149*	.059	.145*	.058	.142*	.057
White	-.126*	0.51	-.125*	.052	-.123*	.050
Age	-.009*	.004	-.008*	.004	-.007	.004
GPA	.007	.038	.005	.037	.013	.038
Self Control					.230	.135
Constant	.150	.189	.097	.197	-.469	.427

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

In the first model, increased levels of strain were found to be significantly related to cyberbullying behaviors even after controlling for demographic control variables. This confirmed the hypothesis that as exposure to stress and strain increased, respondents were more likely to report engaging in cyberbullying.

Unfortunately however, the second model did not indicate that negative emotions were significantly related to individuals level of cyberbullying behavior. Although the effect of strain does decrease, negative affect is not related to cyberbullying. However, when evaluating strain and negative affect in tandem, the results indicated that strain still exerts a direct significant effect on cyberbullying, even when negative affect did not.

Within both these models, findings show significant relationships between age, gender and ethnicity and cyberbullying. Specifically, as participants got older, they were less likely to engage in cyberbullying and White participants reported fewer cyberbullying behaviors while males were significantly more likely to engage in cyberbullying than females.

Finally, the third model evaluated the potential effects of self-control on cyberbullying behavior and found no significant relationship between self-control and cyberbullying. However, with the addition of self-control, age was no longer a significant predictor of cyberbullying.

Because the finding that males were significantly more likely to engage in cyberbullying differed from previous studies' results (Doane et al., 2013; Connell et al., 2014), the item analysis presented in Table 5 was conducted to evaluate what may have been driving this effect. This revealed that in addition to males being more likely to report having “called another person mean names. . .”, males were significantly more likely to report having “shared private, personal, or sexually explicit photos of another person online or over text.” Future research should address the potential gender differences within the various types of cyberbullying.

**Table 5**  
Cyberbullying Item by Gender T-Test

	<i>Male</i>	<i>Female</i>
Called another person mean names, made fun of, or teased in a hurtful way	1.77**	1.36**
Sent inappropriate/nude photos to another person without their permission	1.12	1.08
Threatened to use physical violence or hurt someone	1.16	1.08
Told someone that I wished they would hurt themselves or that someone would hurt them	1.15	1.04
Concealed or faked my identity in order to get private or personal information	1.17	1.08
Shared someone's private or personal information with the public online	1.14	1.06
Shared private, personal, or sexually explicit photos of another person	1.18*	1.01*
Spread false rumors about someone	1.05	1.05
Targeted someone in some other mean, rude or inappropriate way	1.16	1.05

\* $p < .05$  \*\* $p < .01$

## **CHAPTER 5**

### **DISCUSSION AND CONCLUSION**

The current study aimed to evaluate the potential causes of cyberbullying and apply General Strain Theory to a recently developed area of deviant behavior. The researcher found that a large proportion of the college sample reported engaging in some form of cyberbullying, suggesting that this behavior may extend well beyond the typical adolescent population within which cyberbullying has traditionally been associated with. However, this finding may be tempered by some of the survey items and categories of cyberbullying measured within this college population. For example, questions regarding sharing sexually explicit photos are not commonly asked among younger samples. Unfortunately, the occurrence of these behaviors within adult populations may be becoming more common as the emerging generations grow up with social media sites and are therefore already immersed within the online subculture. The current sample certainly suggests that cyberbullying is not unheard of outside of the typical adolescent bullying age range.

General Strain Theory was used as a theoretical guide to attempt to explain why college students may engage in cyberbullying, and results show mixed support. Although there was a clear direct relationship between strain and cyberbullying behavior as predicted by GST, the measure of negative emotions did not have a significant effect on cyberbullying. This finding may be attributed to the fact that the negative affect measure includes both anger and frustration.

Future tests should separate out the different types of negative emotions to see if the same results hold true.

In spite of this limitation, the results indicate that GST may be applicable in explaining negative online interactions and behavior, which is an area not thoroughly evaluated within the GST literature. Applying strain as both a result and potential cause of bullying behaviors may begin to shed some light on the vicious cycle of these interactions and provide a potential intervention point to introduce more positive coping methods.

Inconsistent with previous research, however, was the finding that males were significantly more likely to report engaging in cyberbullying behaviors. As mentioned above, males were more likely to have reported “call[ing] another person mean names, mak[ing] fun of, or [teasing]. . .” someone in a hurtful way while online or over text. However, they were also significantly more likely to report having “shared private, personal, or sexually explicit photos of another person online or over text.” This particular item is one that is not often evaluated within middle school samples due to the inclusion of sexually explicit content. However, this may indicate gender differences in the types of cyberbullying seen online, similar to gender differences within traditional bullying behaviors (e.g. Doane et al., 2013; Connell et al., 2014), and may suggest the need to consider different forms of cyberbullying as having different predictors or influences.

However, it is also important to keep in mind that this was a relatively small sample, collected from a single, southern university and lacked a random sampling design. In addition to this, the data collected utilized a cross-sectional design and required asking participants to recall

both their cyberbullying behaviors and levels of strain. The use of retrospective and self-report data could therefore possibly result in underreporting.

Strain has been shown to be correlated with many different forms of delinquency and bullying (Hay & Meldrum, 2010; Baron, 2004). The current study explored the relationship between strain, negative emotions, and cyberbullying within a college-aged sample and found that although strain seems to play a direct role on cyberbullying behaviors, negative emotions (including anger and frustration) had less of an effect. In spite of this, cyberbullying has now been shown to be both a source of strain and a potential outcome, suggesting the need for policies to help individuals cope with the stressful experiences they may face both within the online or virtual world. Therefore, the current research echoes that of previous literature in the need for prevention efforts and open lines of communication so that students feel comfortable approaching school faculty (Patchin, & Hinduja, 2011).

It is important to keep in mind that although many people report experiencing and engaging in cyberbullying, the internet and social media also allow people to connect with other individuals in a positive way. For example, the Internet allows individuals to interact with family and friends with whom they may have had little or no contact with before should they not be able to virtually connect. Therefore social media can act as both a safe space and a potential source of strain. Future research should focus on the potential racial and gender differences associated with cyberbullying and potential methods to decrease the negative coping of harassing other individuals whilst online.

## APPENDIX

### SURVEY

For the following questions, please circle the number corresponding to the number of times you experienced any of the following scenarios in the past 6 months.

	(1) Never	(2) Once or Twice	(3) Three to Four Times	(4) More than Five
I received a bad grade in class.	1	2	3	4
I got into a bad disagreement with a family member.	1	2	3	4
I got into a bad disagreement with a friend.	1	2	3	4
I was treated unfairly by someone.	1	2	3	4
I broke up with a boyfriend or girlfriend.	1	2	3	4
A close friend or family member of mine died or spent time in the hospital.	1	2	3	4
I experienced financial trouble.	1	2	3	4
I moved to a new school.	1	2	3	4
I was the victim of a crime.	1	2	3	4

For the following questions, please circle the number corresponding to the response that best describes your feelings for each of the statements.

	(1) Strongly Disagree	(2) Disagree	(3) Agree	(4) Strongly Agree
I lose my temper.	1	2	3	4
I let little things irritate me.	1	2	3	4
I stay mad at someone who hurts me.	1	2	3	4
I feel like yelling at a parent or teacher.	1	2	3	4

I feel like getting even with someone who has harmed me.	1	2	3	4
I feel like other people are always lucky and get all of the breaks in life.	1	2	3	4
I feel like life has been unfair.	1	2	3	4
I am jealous of other people.	1	2	3	4
I feel like a powder keg ready to explode.	1	2	3	4
I feel like physically lashing out against a parent or a teacher.	1	2	3	4

For the following questions, please circle the number corresponding to the response that best describes your feelings for each of the statements.

	(1) Strongly Disagree	(2) Disagree	(3) Agree	(4) Strongly Agree
I often act on the spur of the moment without stopping to think.	1	2	3	4
I devote much thought and effort into preparing for the future.	1	2	3	4
I often do whatever brings me pleasure here and now, even at the cost of some distance goal.	1	2	3	4
I am more concerned with what happens to me in the long run rather than in the short run.	1	2	3	4
I frequently try to seek out projects that I know will be difficult.	1	2	3	4
When things get complicated I tend to quit or withdraw.	1	2	3	4
The things in life that are the easiest to do bring me the most pleasure.	1	2	3	4
I like really hard tasks that stretch my abilities to the limit.	1	2	3	4
I feel little need to test myself every now and then by doing something a little risky.	1	2	3	4
Sometimes I will take a risk just for the fun of it.	1	2	3	4
I find no excitement in doing things for which I might get in trouble.	1	2	3	4
Excitement and adventure are more important to me than security.	1	2	3	4

If I had a choice, I would almost always rather do something mental than something physical.	1	2	3	4
I am almost always better when I am on the move than when I am sitting and thinking.	1	2	3	4
I like to read or contemplate ideas more than I like to get out and do things.	1	2	3	4
I seem to have more energy and a greater need for activity than most other people my age.	1	2	3	4
I try to look out for others first, even if it means making things difficult for myself.	1	2	3	4

For the following questions, please circle the number corresponding to the response that best describes your feelings for each of the statements.

	(1) Strongly Disagree	(2) Disagree	(3) Agree	(4) Strongly Agree
I am very sympathetic to other people when they are having problems.	1	2	3	4
If things I do upset people, it's their problem not mine.	1	2	3	4
I will try to get the things I want even when I know it's causing problems for other people.	1	2	3	4
I don't lose my temper very easily.	1	2	3	4
Often, when I'm angry at people, I feel more like hurting them than talking to them about why I'm angry.	1	2	3	4
When I'm really angry, other people better stay away from me.	1	2	3	4
When I have a serious disagreement with someone, I can usually talk calmly without getting upset.	1	2	3	4

The following questions ask about some scenarios. Please circle the number corresponding to the response that best describes the number of times you have engaged in these behaviors in the past 6 months and then respond to the following two related questions.

(1) Never      (2) Once or Twice      (3) 3 to 4 times      (4) More than 5 times

(a) Not well/never met      (b) Just met online      (c) Just met in person  
 (d) Knew well online      (e) Knew well in person

Called another person mean names, made fun of, or teased him or her in a hurtful way online or over text.	1	2	3	4
If once or more, would you have said/done these things in person?			Yes	No
How well did you know the individual?	a	b	c	d
e				
Sent inappropriate/nude photos to another person without their permission via text, email or other messaging device.	1	2	3	4
If once or more, would you have said/done these things in person?			Yes	No
How well did you know the individual?	a	b	c	d
e				
Threatened to use physical violence or hurt someone over the internet or through text.	1	2	3	4
If once or more, would you have said/done these things in person?			Yes	No
How well did you know the individual?	a	b	c	d
e				
Told someone that I wished they would hurt themselves or that someone would hurt them via text, email, or online messaging system.	1	2	3	4
If once or more, would you have said/done these things in person?			Yes	No
How well did you know the individual?	a	b	c	d
e				
Concealed or faked my identity online or over an electronic device in order to get private or personal information from someone.	1	2	3	4
If once or more, would you have said/done these things in person?			Yes	No
How well did you know the individual?	a	b	c	d
e				
Shared someone's private or personal information with the public online or over text messaging.	1	2	3	4
If once or more, would you have said/done these things in person?			Yes	No
How well did you know the individual?	a	b	c	d
e				
Shared private, personal, or sexually explicit photos of another person online or over text.	1	2	3	4
If once or more, would you have said/done these things in person?			Yes	No
How well did you know the individual?	a	b	c	d
e				
Spread false rumors about someone online, over text, or with the use of	1	2	3	4



For the following questions, please circle the number corresponding to the response that best describes how often you have experienced the following in the past 6 months.

	(1) Never	(2) Once or Twice	(3) Three to Four times	(4) More than Five times
Someone called you mean names, made fun of or teased you in person.	1	2	3	4
Someone called you mean names, made fun of or teased you online.	1	2	3	4
Been hit, kicked or punched by another student or peer.	1	2	3	4
Someone threatened to use physical violence or harm you in person.	1	2	3	4
Someone threatened to use physical violence or harm you online.	1	2	3	4
Been told to hurt or kill yourself while online, over email, or social media.	1	2	3	4
Received graphic or sexual photos via text or online that you did not want to see.	1	2	3	4
Someone shared your private or personal information with the public online.	1	2	3	4
Someone spread false rumors about you online or in person.	1	2	3	4
Experienced online bullying or harassment in some other form than the ones listed above. Please describe: _____	1	2	3	4
Experienced bullying or harassment in person, in some other form than the ones listed. Please describe: _____	1	2	3	4

The following questions ask for some general information about you.

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How old are you? \_\_\_\_\_

What gender/sex do you identify with? \_\_\_\_\_ Male  
\_\_\_\_\_ Female  
\_\_\_\_\_ Other

What is your current GPA? \_\_\_\_\_

What ethnicity/race do you identify with? \_\_\_\_\_ White (Non-Hispanic)  
\_\_\_\_\_ Hispanic  
\_\_\_\_\_ African American  
\_\_\_\_\_ Asian  
\_\_\_\_\_ Other (please specify: \_\_\_\_\_ )

What is your current academic level? \_\_\_\_\_ Freshman  
\_\_\_\_\_ Sophomore  
\_\_\_\_\_ Junior  
\_\_\_\_\_ Senior

**Thank you for your time and participation!**

## REFERENCES

- Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology*, 30(1), 47-88.
- Agnew, R. (2001). Building on the foundation of general strain theory: Specifying types of strain most likely to lead to crime and delinquency. *Journal of Research in Crime and Delinquency*, 38(4), 319-361.
- Agnew, R., Brezina, T., Wright, J. P., & Cullen, F. T. (2002). Strain, personality traits, and delinquency: Extending general strain theory. *Criminology*, 40(1), 43-71.
- Agnew, R., & White, H. R. (1992). An empirical test of general strain theory. *Criminology*, 30(4), 475-500.
- Baron, S. W. (2004). General strain, street youth and crime: A test of Agnew's revised theory. *Criminology*, 42(2), 457-484.
- Baron, S. W., & Hartnagel, T. F. (1997). Attributions, affect, and crime: Street youths' reactions to unemployment. *Criminology*, 35(3), 409-434.
- Beran, T., & Li, Q. (2008). The relationship between cyberbullying and school bullying. *The Journal of Student Wellbeing*, 1(2), 15-33.
- Bowers, L., Smith, P. K., & Binney, V. (1992). Cohesion and power in the families of children involved in bully/victim problems at school. *Journal of Family Therapy*, 14(4), 371-387.
- Brezina, T., Piquero, A. R., & Mazerolle, P. (2001). Student anger and aggressive behavior in school: An initial test of Agnew's macro-level strain theory. *Journal of Research in Crime and Delinquency*, 38(4), 362-386.
- Broidy, L. M. (2001). A test of general strain theory. *Criminology*, 39(1), 9-36.
- Broidy, L., & Agnew, R. (1997). Gender and crime: A general strain theory perspective. *Journal of Research in Crime and Delinquency*, 34(3), 275-306.
- Cloward, R. A., Ohlin, L. E. (1960). *Delinquency and opportunity*. New York, NY: Free Press.

- Common Sense Media. (2015). The common sense census: Media use by tweens and teens. Retrieved from <https://www.commonsensemedia.org/research/the-common-sense-census-media-use-by-tweens-and-teens>
- Connell, N. M., Schell-Busey, N. M., Pearce, A. N., & Negro, P. (2014). Badgrlz? Exploring sex differences in cyberbullying behaviors. *Youth Violence and Juvenile Justice, 12*(3), 209-228.
- Doane, A. N., Kelley, M. L., Chiang, E. S., & Padilla, M. A. (2013). Development of the cyberbullying experiences survey. *Emerging Adulthood, 1*(3), 207-218.
- Ford, J. A., & Schroeder, R. D. (2009). Academic strain and non-medical use of prescription stimulants among college students. *Deviant Behavior, 30*(1), 26-53.
- Gini, G., & Pozzoli, T. (2009). Association between bullying and psychosomatic problems: A meta-analysis. *Pediatrics, 123*(3), 1059-1065.
- Hay, C., & Meldrum, R. (2010). Bullying victimization and adolescent self-harm: Testing hypotheses from general strain theory. *Journal of Youth and Adolescence, 39*(5), 446-459.
- Hinduja, S., & Patchin, J. W. (2007). Offline consequences of online victimization: School violence and delinquency. *Journal of School Violence, 6*(3), 89-112.
- Hinduja, S., & Patchin, J. W. (2010). Bullying, cyberbullying, and suicide. *Archives of Suicide Research, 14*(3), 206-221.
- Jang, S. J. (2007). Gender differences in strain, negative emotions, and coping behaviors: A general strain theory approach. *Justice Quarterly, 24*(3), 523-553.
- Kowalski, R. M., & Limber, S. P. (2013). Psychological, physical, and academic correlates of cyberbullying and traditional bullying. *Journal of Adolescent Health, 53*(1), S13-S20.
- Li, Q. (2007). New bottle but old wine: A research of cyberbullying in schools. *Computers in Human Behavior, 23*(4), 1777-1791.
- MacDonald, C. D., & Roberts-Pittman, B. (2010). Cyberbullying among college students: Prevalence and demographic differences. *Procedia-Social and Behavioral Sciences, 9*, 2003-2009.
- McCabe, D. L. (2009). Academic dishonesty in nursing schools: An empirical investigation. *Journal of Nursing Education, 48*(11), 614-623.
- Merton, R. (1938). Social structure and anomie. *American Sociological Review, 3*(5), 672-682.

- Moon, B., Hwang, H. W., & McCluskey, J. D. (2011). Causes of school bullying: Empirical test of a general theory of crime, differential association theory, and general strain theory. *Crime & Delinquency, 57*(6), 849-877.
- O'Keeffe, G. S., & Clarke-Pearson, K. (2011). The impact of social media on children, adolescents, and families. *Pediatrics, 127*(4), 800-804.
- Patchin, J. W., & Hinduja, S. (2006). Bullies move beyond the schoolyard: A preliminary look at cyberbullying. *Youth Violence and Juvenile Justice, 4*(2), 148-169.
- Patchin, J. W., & Hinduja, S. (2011). Traditional and nontraditional bullying among youth: A test of general strain theory. *Youth & Society, 43*(2), 727-751.
- Pérez, D. M., Jennings, W. G., & Gover, A. R. (2008). Specifying general strain theory: An ethnically relevant approach. *Deviant Behavior, 29*(6), 544-578.
- Schenk, A. M., & Fremouw, W. J. (2012). Prevalence, psychological impact, and coping of cyberbully victims among college students. *Journal of School Violence, 11*, 21-37.
- Schneider, S. K., O'Donnell, L., Stueve, A., & Coulter, R. W. (2012). Cyberbullying, school bullying, and psychological distress: A regional census of high school students. *American Journal of Public Health, 102*(1), 171-177.
- Slonje, R., & Smith, P. K. (2008). Cyberbullying: Another main type of bullying?. *Scandinavian Journal of Psychology, 49*(2), 147-154.
- Sticca, F., & Perren, S. (2013). Is cyberbullying worse than traditional bullying? Examining the differential roles of medium, publicity, and anonymity for the perceived severity of bullying. *Journal of Youth and Adolescence, 42*(5), 739-750.
- Tittle, C. R., & Meier, R. F. (1990). Specifying the SES/delinquency relationship. *Criminology, 28*(2), 271-299.
- Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behavior, 26*(3), 277-287.
- Ybarra, M. L., Boyd, D., Korchmaros, J. D., & Oppenheim, J. K. (2012). Defining and measuring cyberbullying within the larger context of bullying victimization. *Journal of Adolescent Health, 51*(1), 53-58.
- Ybarra, M. L., & Mitchell, K. J. (2004). Online aggressor/targets, aggressors, and targets: A comparison of associated youth characteristics. *Journal of Child Psychology and Psychiatry, 45*(7), 1308-1316.

## **BIOGRAPHICAL SKETCH**

Rachel Kail, the author, was born and raised in Austin, Texas and currently lives in the DFW area. She attended the University of Texas at Dallas for both her undergraduate and master student coursework and has seen a great deal of success in both areas. Graduating with honors in both of her undergraduate degrees and looking forward to applying to various PhD programs, Rachel hopes to one day be a professor of criminology and inspire students the way her professors inspired her. She enjoys conducting research and collaborating with other students in order to have the best finished product possible. An active member of the Criminology and Criminal Justice Honor Society, Alpha Phi Sigma, Rachel enjoys participating in community service events to help raise money for the families of fallen firefighters and police officers. Outside of academia, Rachel engages herself physically and mentally by playing the violin, spending time with her family, and training in a close-combat self-defense program known as Krav Maga and hopes to one day get her instructor certification.

## CURRICULUM VITAE

### **Rachel Kail**

(November 1, 2016)

#### **Education**

- M.S., Criminology** University of Texas at Dallas Dec 2016  
*What Influences Cyberbullying? A Test of General Strain Theory*  
Advisor: Nicole Leeper Piquero
- B.A., Criminology** University of Texas at Dallas Dec 2015  
Magna Cum Laude
- B.S., Psychology** University of Texas at Dallas Dec 2015  
Summa Cum Laude

#### **Conference Presentations**

**2016 Rachel Kail**

Poster Presentation: "What Influences Cyberbullying? A Test of General Strain Theory"  
New Orleans, LA; American Society of Criminology Meeting

#### **Teaching Assistant Experience**

**University of Texas at Dallas**

*Undergraduate*

Psychology First Year Seminar

Advisors: Joanna Gentsch, Melanie Spence, Carol Johnson

#### **Employment History**

***Forensic Psychology Assistantship*** May 2014

#### **Affiliations**

**2016** Criminology Graduate Student Association Member

**2015** Phi Kappa Phi Member

- 2015** ASC Member
- 2015** Dean Student Advisory Board Member  
Dean Denis Dean
- 2015** Alpha Phi Sigma President
- 2015** Psi Chi Member

### **Awards and Honors**

- 2015** Alpha Phi Sigma Criminal Justice General Knowledge Scholarship Test  
First Prize  
Academy of Criminal Justice Sciences 2015 Meeting (Orlando, Florida)
- 2013 - 2015** Deans List  
Semester Award

### **Community and Volunteer Service**

- 2013 - 2015** Guns and Hoses Volunteer Event

### **Research Interests**

Violent crime  
Criminological theory  
Qualitative and quantitative research methods  
Decision-making process of offenders  
Victimology and victim-selection processes