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ON THE CAUSES, EFFECTS, AND PREVENTION OF BULLYING AMONG SCHOOL-AGED  
YOUTH

A MASTER'S THESIS  
SUBMITTED TO THE FACULTY  
OF BETHEL UNIVERSITY

BY  
MARIE WARNERT

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
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BETHEL UNIVERSITY

ON THE CAUSES, EFFECTS, AND PREVENTION OF BULLYING AMONG SCHOOL-AGED  
YOUTH

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APPROVED

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To my husband, Andrew – thank you for believing in me and guiding me every step of the way. Thank you for supporting me, inspiring me, and for continually challenging me to step out of my comfort zone. Thank you to my parents for encouraging me to complete my masters and for the endless support along the way. Finally, I would like to thank Bethel University for providing wonderful support staff to help me through this process.

## Abstract

This literature review provides a comprehensive overview on the topic of bullying. It explores the various definitions of bullying and how bullying might manifest itself among school aged youth. The common ways that bullying are measured in academic studies is explored. Prevalence data from around the world and over time is analyzed to understand how pervasive bullying is. The effects that bullying has on school aged youth is explored across a large scale down to the molecular biological level and up to the societal level. The many causes of bullying and risk factors shared by all stakeholders that are involved in acts of bullying are explored. It recognizes the role clinicians, educators, and parents can play in identifying these risk factors. The association between bullying and psychosomatic symptoms, long-lasting effects such as depression, anxiety, and suicide are shown to be profound. Bullying is caused by numerous factors including personality traits of the bully and victim, school and home environment, parental involvement and style, etc. Through parent, clinical, district, and educator awareness and early intervention/prevention, adolescents may be dissuaded from affiliation with bullying, not only changing their lives but possibly future lives as well.

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## CHAPTER I: INTRODUCTION

The research for this review began in November of 2020, eight months after the Sars-COV-2 pandemic initiated global lockdowns. Across the United States, school districts were forced to make a pivotal decision about how to maximize both the health and safety of their students and the effectiveness of their education. The predominant choice has come to be known as “distance learning.” This is a form of education that is conducted primarily through and with the use of technology. Previously, online learning was mainly utilized at the university level and only sparsely through the elementary, junior, and senior high school (and equivalent education structures outside of the USA) settings. A sudden change to the nature of the school environment calls into question how traditional dynamics of a school setting might change. One dynamic of growing importance is the universal behavior of bullying in school aged youth.

This literature review attempts to address the contribution of bullying towards a toxic, hostile, and ineffective educational environment that adversely affects a large minority (possibly even the majority) of the students (Forero et al., 1999). It attempts to address a negative feedback loop that perpetuates a cycle of violence and aggressive behavior in school aged youth. It attempts to account for the impacts to society that school-aged bullying has in terms of medical costs associated with mental health disorders and psychosomatic disorders that arise from involvement in bullying. It attempts to address the impacts to society that involvement in school-aged bullying has in the form of administrative costs concerning increased rates of delinquency and increased probabilities of being involved with criminal behavior. Finally, it attempts to



address how the dynamics, prevalence, and effects of bullying change as the school environment evolves.

This topic is of paramount importance because bullying is a universal phenomenon that has real implications on the physical and mental wellbeing of those involved. Bullying is traumatic and induces stress on those involved. Inducing stress and trauma on developing brains has serious implications for proper brain development and maturation (Lupien et al., 2009). This topic matters because the nature of the school environment is changing from a purely physical nature to one of increasing digitization. The tools and tricks that administration, parents, clinicians, and all other stakeholders historically employed to root out bullying from their gardens may not be effective as society moves further and further into the 21<sup>st</sup> century. Increasing levels of anonymity, the susceptibility of content to “go viral,” and the explosive nature of the Internet has the potential to dramatically alter the properties of bullying as we know it (Lu et al., 2019).

### **The Definition of Bullying**

To understand the effects of bullying, the causes of bullying, and how to prevent bullying, it is paramount we ask ourselves and are able to answer the question, “What is Bullying?” To answer this question, we turn to Dan Olweus first. Olweus is one of the most published and prolific scholars on the subject of bullying. One of the earliest and most widely cited definitions of bullying dates back to 1974, when a keen interest in the topic of peer victimization began in Scandinavia. Olweus (1999) describes bullying as “a specific type of aggression in which (1) the behavior is intended to harm or disturb, (2)

the behavior occurs repeatedly over time, and (3) there is an imbalance of power, with a more powerful person or group attacking a less powerful one” (p.2). From Olweus’s definition, we can see that the concept of bullying is derived from aggression and is made up of many different components. Because aggression can manifest itself in numerous ways, competing definitions of bullying are common. For example, Forero et al. (1999) state that “Bullying is when another student, or group of students, says or does nasty and unpleasant things to him or her. It is also bullying when a student is teased repeatedly in a way he or she doesn’t like. But it is not bullying when two students about the same strength quarrel or fight” (p. 2). Carney and Merrell (2001) state that:

Bullying can be defined as...repeatedly (not just once or twice) harming others.

This can be done by physical attack or by hurting others’ feelings through words, actions, or social exclusion. Bullying may be done by one person or by a group.

It is an unfair match since the bully is either physically, verbally, and/or socially stronger than the victim (p. 2).

Furthermore, the CDC (2014) states that “Bullying is unwanted, aggressive behavior among school-aged children that involves a real or perceived power imbalance” (p. 2).

Over time, the conduct is replicated or has the ability to be repeated. Making threats, spreading lies, physically or verbally assaulting others, and purposefully excluding others from a group are all examples of bullying. Bullying can take place in person or online.

Although there are important nuances in the various definitions of bullying and aggression and some ambiguity around the frequency of the aggressive act, there appears to be widespread consensus that a power imbalance between the victim and the perpetrator must exist to classify the act as one of bullying. Nansel et al. (2001) elaborated on this power imbalance further by stating that the power imbalance can be physical or psychological, and abusive actions can be verbal (e.g., name-calling, threats), physical (e.g., hitting), or psychological (e.g., threatening) (e.g., rumors, shunning, exclusion). Similarly, according to Carney and Merrell (2001), every instance of bullying involves an individual or group devaluing another in order to appear superior. Karatzias et al. (2001) observed that bullying is commonly characterized by an asymmetrical power relationship (physical or psychological) between the bully and the victim, and it can be perpetrated by a single person or a group. This implies a balance of power can exist, not only between two individuals but between an individual and a group. It is unclear if the act of bullying can exist between two groups. Interestingly, there have been reports of bullying experiences against/from teachers and other school staff (Karatzias et al., 2001). This would imply that the imbalance of power is not limited to peer-to-peer dynamics. It is abundantly clear from the literature that any definition of bullying must include an element of a power imbalance between a bully and a victim. Furthermore, most definitions within the literature contain references to elements of aggression being displayed with a certain frequency and intentionality.

There is a modern form of bullying that has fundamental differences when compared to traditional bullying. Therefore, this form of bullying warrants a brief description of its own. The term cyberbullying has been used since at least the early 1990's to describe bullying with the use of electronic communication technology. Sticca and Parren (2012) define cyberbullying as an offensive conduct perpetrated against a defenseless victim using electronic means of communication on a regular and deliberate basis (e.g., cell phones, the Internet, and social media). Cell phones, the Internet, and social media can be used repeatedly and intentionally to channel aggressive behavior against a defenseless victim in the form of e-mails, instant messaging, messages in chat rooms, or through non-text communications such as photographs and videos (Kowalski & Limber, 2017). Unlike traditional school-yard bullying which much of the literature on the bullying chronicles, cyberbullying is often characterized by a certain degree of anonymity between the bully and the victim (Sticca & Parren, 2012).

### **The Various Manifestations of Bullying**

In order to measure, quantify, and ultimately analyze bullying related data, it is necessary to be able to observe the manifestation of bullying. According to de Oliveira et al. (2015), bullying may take several forms, including physical (hitting, spitting), verbal (derogatory nicknames, intimidation, insults, gossip), cyberbullying (using social, electronic, or communication media – internet, phone), and indirect (where there is no direct conflict between those involved) (social exclusion, gossip). It is also manifested in interpersonal relationships among students across various signs, attitudes, and prejudice. Encouragingly, bullying expressed as verbal and negative remarks regarding

one's faith or race (i.e., openly prejudice) has been reported to occur infrequently among adolescents of both sexes. This finding may reflect stronger social norms among adolescents against such manifestations of bullying (Nansel et al., 2001). Nonetheless, de Oliveria et al. (2015) seem to echo earlier remarks from Fu et al. (2012) who said:

Bullying can be in the forms of physical attacks, name-calling and more subtle ways such as social isolation, direct bullying involving open attacks and threats on a victim features the imbalance of power and aggressive nature of school bullying, which may lead to more detrimental outcomes (p. 3). Bullying is often manifested using technology in the form of cyberbullying.

Kowalski and Limber (2007) observed that while analogies to conventional bullying seem logical, electronic bullying has its own set of specific and especially troubling characteristics. Electronic bullying, unlike conventional bullying, can happen at any time. Electronic bullying content can be distributed more quickly and to a wider audience. This implies that cyberbullying has the potential to manifest itself with greater spontaneity, rapidity, and publicity.

Another distinct feature of bullying manifesting itself in the form of cyberbullying, as opposed to traditional schoolyard bullying, is that the bully is often able to conduct the aggressive bullying act with a potentially high degree of anonymity. This is an important distinction as it has been noted that anonymous cyberbullying increased levels of experienced fear and increased levels of frustration, insecurity, and powerlessness within the victim (Sticca & Parren, 2012). The fact that people cannot

see the target's emotional reactions adds to the possible danger of anonymity offered by the Internet. As a result, emotional responses like crying, which may cause people to realize their words were misinterpreted or taken too far, are no longer apparent. (Kowalski & Limber, 2007).

In summary, bullying can manifest itself in a multiplicity of ways. Bullying can manifest itself physically, emotionally, and socially. It can be verbal and/or non-verbal. With the advent of the Internet and electronic communication technology, bullying can manifest itself digitally, anonymously and/or publicly, and rapidly to an incredibly wide audience. This could be problematic when trying to objectively measure bullying in general. Thus, before one can understand the causes and effects of bullying, one must first understand how bullying is measured.

### **The Various Methods of Measuring Bullying**

The most commonly used method of measuring bullying was a cross-sectional study, in the form of a self-reported questionnaire. Occasionally, multiple cross-sectional studies were performed over a period of time in the form of a longitudinal study. Furthermore, multiple cross-sectional studies were performed at the same moment in time but at a multi-national level; not often were these multi-national studies longitudinal. Rarely, cross-sectional studies in the form of professional interviews (e.g., licensed counselors, physicians, clinicians, etc.) were conducted. A variety of methods of statistical analysis were often used to understand similar bullying related data points. The statistical analysis seemed to become more sophisticated over time.

## Cross-Sectional Studies

A cross-sectional study is a type of observational study that analyzes data from a population, or a representative subset, at a specific point in time. There are many forms of cross-sectional studies, and a few of these are more commonly used when measuring bullying.

**Self-Reported.** By 1991, the basic method of data collection on bullying in Norway and Sweden (where the academic study of bullying was flourishing) was a self-reported questionnaire developed by Olweus in connection with the nationwide campaign against bullying. All schools in Norway were invited to partake in the questionnaires. Selected representative samples were sometimes taken for closer analyses. Estimates were made of the prevalence of bully/victim problems in various school types, grades, and boys versus girls, among other factors. In addition, data on disparities between schools as they relate to the characteristics of the schools and the surrounding communities in terms of population density, degree of poverty, and other factors were given (Olweus, 1991).

Self-reported questionnaires seemed to be the most dominant form of data collection, not only in the flourishing epicenter of bullying research (i.e., Norway) but elsewhere around the globe. In neighboring Finland and Sweden, self-reported questionnaires were used by Kumpulainen and Räsänen (2000) and Nansel et al. (2004), respectively to assess the prevalence of bullying. Across the Baltic Sea, self-reported questionnaires were utilized by Karatzias et al. (2001) which included self-rated scales in secondary schools from two schools in Scotland. The reports were used to measure

bullying behavior. In New South Wales Australia, Ferro et al. (1999) used self-reported questionnaires to study the prevalence and association of psychosomatic health in both public and private schools. Also in Australia Bond et al. (2001) used self-reported questionnaires to study the prevalence of victimization and its association to self-reported symptoms of anxiety and depression.

**Professional interviews.** An alternative to self-reported cross-sectional studies is a cross-sectional study conducted by a professional interviewer. These types of interviews appear to have their own advantages and disadvantages. A team of professional researchers from Duke University's Departments of Psychology and Neuroscience and Psychiatry and Behavioral Sciences collaborated with Duke University's Institute for Genome Sciences to carry out an intricate study that associated exposure to violence (i.e., frequent bullying victimization) to biological changes at the molecular level. Two professional cross-sectional interviews to assess childhood adversity were conducted at ages five and ten with both the child and their mothers/caregivers. Buccal swabs were collected during these interviews to obtain DNA samples (Shalev et al., 2013). This level of detail when measuring the effects of bullying simply cannot be done through standard self-reported cross-sectional studies. Thus, although not all cross-sectional studies conducted via professional interviews are this detailed, a benefit of professional interviews is the level of detailed data able to be collected and analyzed. A possible drawback to professional assessments of bullying is that there is, inherently, a larger barrier to entry for the participants. This would naturally limit the sample sizes of the population from which the data is collected.



Similar sample sizes (around 2,000 participants) are seen in Fu et al. (2012) and Sugden et al. (2010). It is unclear if this sample size for professionally conducted cross-sectional studies represents a natural upper limit or if this number is sufficient to drive statistically significant conclusions. Rarely do these studies reach the same quantity of participants when compared to cross-sectional studies in the form of a simple self-reported questionnaire.

### **Longitudinal Studies**

Multiple cross-sectional studies can be conducted over time to form a longitudinal study. Longitudinal studies have the benefit of being able to monitor key metrics over time. However, because they are still cross-sectional in nature, it is difficult, if not impossible, to establish causal relationships between variables. One potentially problematic aspect of longitudinal studies would be a high rate of participant drop out. It is imperative and fundamental to the integrity of the longitudinal study that all or most of the participants continue to be measured over time. High dropout rates would question the integrity of any conclusions from a longitudinal study. Not all longitudinal studies capture or report on the attrition rate of studied participants. Some of the studies that did report this figure showed encouraging data. Copeland et al. (2013), during The Great Smoky Mountain Study of 1993 in Western North Carolina, completed annual assessments of three cohorts of children (almost 1,500 study participants age 9, 11, and 13) and their primary caregiver over a ten-year period, and remarkably completed 83% of possible interviews overall. Undheim and Sund (2010) reported an 88% response rate, noting only 11% of adolescents omitted a substantial number of

items and were excluded from analysis. In summary, longitudinal studies are a key method of studying bullying prevalence and effects.

Overall, bullying in general is predominantly measured cross-sectionally through the application of a self-reported questionnaire. These have the benefit of being widely distributable, standardizable, and repeatable, enabling longitudinal and multi-national studies. These studies are often used to assess prevalence related data points. Cross-sectional studies are good for establishing associative relationships but struggle to establish causal relationships. This is an important nuance to consider moving forward. Furthermore, as the academic study of bullying has evolved alongside other fields such as neurobiology over the last 50 years, more sophisticated associative (and sometimes causal) relationships have been explored.

### **Guiding Questions**

The guiding questions of this literature review are: “What is bullying?”, “How does bullying manifest itself?”, “How is bullying measured?”, “How prevalent is bullying?”, “What are the effects on those involved in bullying?”, “What are the causes of bullying?”, and “How can bullying be prevented?”. The guiding questions serve to provide a broad but deep understanding of the topic of bullying to inform teachers, administration, parents, clinicians, and society how best to diagnose, treat, and prevent bullying as we move into uncharted territory in a post-COVID and increasingly digital world. The first three guiding questions are intended to provide a theoretical framework for understanding of the subject matter and a definition of key terms

necessary for the comprehension of the subject matter. The last four guiding questions of this literature review serve to understand the totality of bullying from inception.

## **CHAPTER II: LITERATURE REVIEW**

### **Literature Search Procedures**

To locate the literature for this thesis, searches of Educator's Reference Complete, CLICsearch, NCBI, Google Scholar, Academic Search Premier, and ProQuest Database were conducted for publications from 1990-2020. This list was narrowed by reviewing published empirical studies from peer-reviewed journals that focused on the causes, effects, and prevention of bullying and that addressed the guiding questions. The key words that were used in these searches included "bullying", "bullying manifestation," "prevalence of bullying," "effects/causes of bullying," and "prevention." The structure of this chapter is to review the literature on the causes, effects, and prevention of bullying among school-aged youth in seven sections in this order: The Definition of Bullying; The Various Manifestations of Bullying; The Various Methods of Measuring Bullying; The Prevalence of Bullying; The Effects of Bullying; The Causes of Bullying; and Bullying Prevention Strategies.

### **The Prevalence of Bullying**

The prevalence of bullying is commonly segmented in the literature two ways: the prevalence of being a victim of bullying and the prevalence of being the bully. A third metric is often referred to as a bully-victim and defined as a person who has been both a perpetrator of bullying and a victim of bullying. The data is commonly segmented demographically. Trends are identified most commonly in relation to age and sex. Data disaggregated by gender identity and race appeared far less often.

Because modern cyberbullying is a relatively recent phenomenon when compared to the entirety of the bullying academic landscape spanning the last fifty years, special attention is warranted (and paid) towards its prevalence at the end of this section.

### **Prevalence of Victimization**

One of the most comprehensive studies that assessed involvement in bullying, and thus the prevalence of victimization among the items listed below, was a 2004 study by Nansel and colleagues. This study was done using standard tests and approaches to see if the association between bullying and psychosocial change is consistent across countries. A self-reported questionnaire with 84 core questions and additional country-specific items was used to collect data for this analysis. Nationally representative groups of students in 25 countries were used to conduct cross-sectional self-report surveys. Bullying involvement was evaluated as a bully, perpetrator, or both bully and victim. In each of the participating countries, surveys were conducted at public and private schools. Consenting students in sampled classrooms were included in the study, totaling 113,200 students aged 11.5, 13.5, and 15.5 years. Bullying involvement ranged widely across continents, ranging from 9% to 54% of young people. The percentage of children identified as victims ranged from 5% in Sweden to 20% in Lithuania, with an overall average of 11%.

Karatzias and colleagues (2001) used self-rating scales from two secondary schools in Scotland in an attempt to associate bullying with other indicators such as quality of school life (QSL), student stress, general well-being, personality (self-esteem

scale), locus of control, and positive/negative affect. They found that 16% of the sample (425 pupils, 44% male/56% female) reported having experienced bullying. Verbal bullying was the most widely experienced bullying type (91%) followed by behavioral bullying (56%) and physical bullying (44%).

Kumpulainen and Räsänen (2000) conducted a longitudinal study from 1989 to 1996 in Eastern Finland. They investigated psychiatric symptoms and deviance among children involved in bullying at the age of 8 years or 12 years; they found that 11% and 5%, respectively, could be categorized as victims of bullying. This apparent diminution in the prevalence of bullying victimization with increasing age is investigated in further detail later. Also in Finland, annual surveys were conducted in 1995 and 1997 to assess a variety of bullying related metrics. A total of 58 and 75 schools, respectively, participated. Eighth and ninth grade students (8,787 in 1995 and 17,643 in 1997, boys and girls were equally represented) were asked to complete self-reported surveys on Bullying, depressive symptoms, anxiety, psychosomatic symptoms, binge drinking, drug abuse, eating disorders, and various mental health issues. The studies showed that 5% of girls and 6% of boys reported being victims of bullying (Kaltiala-Heino et al., 2000).

At two time points, a longitudinal study looked at the mental health of 12-15-year-old teenagers in two counties in central Norway (1 year apart, between 1998 and 2000). In a survey of 2,464 teenagers, 51 percent of whom were girls with an average age of 13.7 (and an 88.3 percent response rate), 10% (n= 240) said they were harassed once a week or more frequently; 8% said they were mocked, 4% reported being excluded, and 2% reported physical assault in the same period. Some reported having

been exposed to more than one type of behavior. Significantly more boys than girls reported experiencing physical assault once a week or more frequently (Undheim & Sund, 2010).

In the Great Smoky Mountain study of 1993, annual evaluations were completed with the child and the primary caregiver until the child was 16 years old; individual evaluations were included with the participant again at ages 19, 21, and 24–26 years (completed in 2010) (Copeland et al., 2013). A total of 6,674 evaluations were completed on 1,420 subjects in childhood (ages 9 to 16), and 3,184 assessments with people in young adulthood (ages 19, 21, and 24–26). Approximately 26% said they had been bullied at least once, and 9% said they had been bullied several times. In contrast to previous research, rates were not higher among boys. Being bullied was twice as common in childhood (24% during ages 9-13) than in adolescence (10% during ages 14-16) (Copeland et al., 2013). This inverse relationship between prevalence rate and age appears common across the literature.

Thus far, the prevalence range of bullying victimization falls between 5 and 20% of the student population, which represents a substantial minority of students. Troublingly, other reports have indicated significantly higher prevalence rates, and some research had found that rates of bullying have increased over time. For example, Bond et al. (2001) wanted to see whether there was a connection between chronic peer victimization and the onset of self-reported anxiety or depression symptoms in early adolescence. A total of 3,623 students from secondary schools in Victoria, Australia were surveyed in a randomized controlled experiment, children were polled twice, once

at the age of 13 and once at the age of 14. Participants were labeled as "victimized" if they responded "yes" to questions about being teased, getting rumors spread about them, being purposefully removed, or having physical threats or abuse directed at them. The prevalence of victimization at each of the three survey periods was 49%, 51%, and 49%, respectively. A total of 33% of respondents were defined as having experienced "continual victimization," with 63% of those who were repeatedly victimized at the original time point also reporting repeated victimization in the following year's assessment.

While the bulk of the aforementioned studies are international, the same phenomenon exists in the United States. For example, Borowsky and colleagues (2013) used data from the 2010 Minnesota Student Survey, a population-based, cross-sectional survey administered every three years to students in grades 6, 9, and 12 who attend public, charter, and tribal schools, to (1) identify environmental risk factors and risk behaviors associated with suicidal ideation and attempt among youth involved in bullying; and (2) identify protective factors against suicidal ideation and attempt among youth involved in bullying. In this study, Borowsky et al. (2013) reported that 9.6% of the student body reported frequent victimization; the population consisted of 65,160 boys (49.8%) and 65,748 girls (50.2%) and the race/ethnicity was white (73%), African/African American (6%), Asian/Pacific Islander (5%), Hispanic (4%), American Indian (2%), mixed race (7%).



## Prevalence of Bullying Perpetration

Nansel and colleagues (2001) studied sixth to tenth grade American students (in public, Catholic, and other private schools) during the spring of 1998. With an 83% participation rate, they administered self-reported questionnaires to study bullying with a variety of metrics. Almost 9% of the sample confessed to bullying people once a week or more (frequent bullying). Of the total sample, 30% (an estimated 5,736,417 youth) reported some type of involvement in moderate or frequent bullying, as a bully (13%), a target of bullying (11%), or both (6%). This suggests that prevalence rates are higher when the bullying is described as “moderate” versus “frequent.” Nonetheless, 8-13% of a student population perpetrating bullying is an alarmingly high number. Kumpulainen and Räsänen (2000) showed in a longitudinal study that between 8% and 8% of students were categorized as bullies. Borowsky et al. (2013) further corroborates these findings when they measured the frequency of bullying perpetration to be 10%. Other studies have suggested that prevalence rates of bullying perpetration in the range of 7-13% might be low estimates. Forero et al. (1999) distributed 3,918 questionnaires to students in both public and private New South Wales schools and examined both the prevalence of bullying and its association with psychological and psychosomatic health; they found that 23.7% of the students reported that they had bullied others. It is important to identify not just the students who are victims of bullying but also the bully themselves. Youth who reported having bullied others were 2.38 times more likely to have carried a weapon in the past year compared with their counterparts who have not bullied others (Lu et al., 2019).

### **Prevalence of Bully-Victims**

A small portion of any given student population will be categorized as a “bully-victim.” Bully-victims are children and teenagers who are both the bully and the victim in a bullying situation. Special importance has been paid over the years to studying this group as these students may differ from both bullies and victims regarding personality and family relationships (Kaltiala-Heino et al., 2000). In fact, according to Nansel et al. (2004), “in addition to overall efforts to reduce the prevalence of bullying, particular attention should be given to bully-victims, who may be at especially high risk for maladaptive outcomes and may require more intensive intervention” (p. 5).

The prevalence of bully-victims was estimated by Kaltiala-Heino et al. (2000) to be 1-2% for middle school aged girls and boys, respectively. Also in 2000, Kumpulainen and Räsänen reported a bully-victim prevalence rate of 7%. Forero et al. (1999) reported a much higher bully-victim prevalence rate of 22%.

### **Prevalence of Cyberbullying**

Perhaps the earliest data on the prevalence of cyberbullying was an unpublished survey conducted by the National Children’s Home in the United Kingdom (Kowalski & Limber, 2007). The term “electronic bullying” was coined by researchers to describe bullying that occurs over the phone or on a device. They polled 856 children and youth aged 11 to 19 and found that 16 percent had been harassed via text messages on their phones, 7% via online chat rooms, and 4% via e-mail. Since the early 2000s, youth have rapidly developed a fondness for computers and the Internet and have reaped the social and emotional advantages that the Internet and electronic communication offer.

(Hinduja & Patchin, 2013). For example, parents reported that their children have access to a broad range of communication technologies, including personal e-mail accounts (67%), mobile phones (59%), personal computers (88%), and the Internet (82 percent) (Salazar et al., 2017). This rise of the Internet and technology adoption has also given adolescent youth a new medium through which they can experience the act of bullying (either as a victim, bully, or bully-victim). This manifestation of bullying is called “Cyberbullying” and is generally defined as the intentional and repeated harm caused by the use of computers, cell phones, or other electronic devices.

Kowalski and Limber (2007) performed one of the earliest systematic studies of cyberbullying. The study included 1,915 girls and 1,852 boys in grades 6-8, all of whom attended any of six elementary schools in the southeastern and northwestern U.S. Participants completed a questionnaire packet that included 39 items of the Olweus Bully/Victim questionnaire (Olweus, 1999). A total of 15% of girls and 7% of boys were solely victims; 10% of girls and 4% of boys were bully-victims; and 4% of girls and 5% of boys reported they electronically bullied others. Both victims and bully/victims were electronically bullied most frequently by a student at school; the second most frequent bully was a stranger. Almost half (48%) of the students did not know who had electronically bullied them (Kowalski & Limber, 2007).

An extensive study by Hinduja and Patchin (2013) that examined the role of peers, parents, and educators in preventing cyberbullying behaviors found that approximately 6–30% of teens had experienced some form of cyberbullying. Their study

was of 4,400 middle and high school students from 33 schools in one large district in the southern United States of America.

Salazar et al. (2017) used the Extended Parallel Process Model (EPPM) to examine the short-term effects of the Arizona Attorney General's "Cyber-Safety Promotion Presentation" on parents of middle school students. In this study, parents reported that 22% of their children had been a victim of cyberbullying, and 16% of parents simply did not know. According to the authors, over 90% of children who are cyberbullied do not report it to an adult.

Livazovic and Ham (2019) examined the role of socioeconomic status and situational factors (e.g., school, parents and peers) in adolescent cyberbullying was investigated, with a particular emphasis on the emotional effects of cyberbullying. From the General Aggression Mode's point of view, they estimated that 21% of youth are regular victims of cyberbullying. Echoing Salazar et al. (2017), albeit to a lesser degree, 34% of the participants in that study indicated that they would never report cyberbullying to an adult.

Prevalence rates of bullying victimization and/or perpetration (in traditional schoolyard and cyber forms) commonly range from roughly 5 to 30%. The wide range in these prevalence rates is likely due to many factors including 1) differing definitions and methods of measuring bullying across studies and 2) varying degrees of awareness and prevention of bullying among school staff, parents, and students.

Attempts have been made to identify trends in assessing the prevalence of bullying. For example, while bullying and teasing occur at any age, it is most prevalent

from late childhood through early or middle adolescence, with a peak period generally recognized by experts to be between the ages of 9 and 15 years old (Hazler, 1996). Forero et al. (1999) echo these findings when they state, “bullying has been found to decrease with age, with boys more likely to have been bullied and to participate in bullying others compared with girls” (p.1). A study by Vanderbilt and Augustyn (2010) challenged the assumption that bullying prevalence decreases with age as they note that “older children are less likely to talk about their victimization, with less than half of children confiding in anyone” (p. 2).

de Oliveira and colleagues (2005) also found that boys were more frequently bullied than girls. This trend may dissipate when looking at the totality of bullying and all its forms. The findings from Kowalski and Limber (2007) highlighted that girls outnumber boys when it comes to the extent of cyberbullying. This is consistent with the fact that, in comparison to boys, girls prefer to use more subtle forms of violence. These findings on the higher prevalence of cyberbullying in girls were noted by Livazovic and Ham (2019) as well. Their findings indicated that girls are likely to be victims of cyberbullying victims and to report it, while boys and younger participants are more likely to be perpetrators of cyberbullying.

In summary, the act of bullying is a global phenomenon that affects a substantial minority or, in some cases, a majority of the student population. The prevalence rate ranges from a low of 5% to a high of over 50%. The differences are largely attributable to differences in measurement and the maturity of bullying prevention campaigns.

## **The Effects of Bullying**

According to the Center for Disease Control (2014), bullying can have serious, long-term negative effects on the mental health and overall well-being of youth involved in it in some way; this includes who bully, those who are bullied, and those who both bullied/are a bully (bully-victim). In other words, any involvement with bullying behavior may contribute towards these lasting, negative effects. Stress is an apt place to start when examining the effects of bullying on adolescent youth since stress has been well characterized neurologically. Extrapolation to both the individual level and the societal level can then occur. This bottom-up approach will explore the totality of the effects of bullying with the ultimate goal of identifying causal agents and designing appropriate prevention strategies.

### **Molecular Biology of Stress**

The hypothalamus pituitary adrenal (HPA) axis is activated by stress, resulting in the adrenal glands producing glucocorticoids (e.g. cortisol) (Lupien et al., 2009). Glucocorticoids are essential for normal brain development. Both low and high levels of glucocorticoids affect brain growth and function. It was discovered that the activity of the brain regions that control glucocorticoid release might be impaired by glucocorticoids for a long time. The findings indicate that the human frontal cortex, which continues to mature during puberty, is especially susceptible to the effects of stress. The evidence obtained from animals and humans indicates that persistent or repetitive stress (e.g., bullying) has long-term effects on the brain through activation of

the HPA axis and the release of glucocorticoids; the greatest impact on those structures in young people occurs when they are exposed to the stressor (Lupien et al., 2009).

Similarly, Ouellet-Morin et al. (2011) suggest that higher HPA axis reactivity leads to an increased risk of depression in humans. In the sense of chronic concurrent stress, lower HPA axis reactivity has also been noted. These findings indicate that early and persistent exposures to negative life circumstances can “get under the skin” and reduce HPA axis reactivity. Results from the study by Ouellet-Morin et al. (2011) provided evidence for the hypothesis that early exposure to adverse life circumstances (i.e., bullying) in childhood could result in lower HPA axis reactivity to stress. Their results indicated that low cortisol responses to stress could be linked to social and behavioral issues, particularly in children who have been maltreated or bullied. Childhood violence was related to lower cortisol responses to stress, meaning that maltreated/bullied children had more social and behavioral issues.

Shalev et al. (2013) noted that telomere erosion had been linked to cellular aging, disease, and mortality in humans in previous studies. Recent research has looked into the connection between childhood stress and telomere duration. Four of these studies discovered that adults who reflected on childhood adversity had shorter telomere lengths than adult controls (Shalev et al., 2013). The degradation of telomere length, the repetitive TTAGGG sequence at the end of chromosomes, has emerged as a promising new biomarker of stress (Copeland et al., 2013). Telomeres have been shown to erode faster in children who have been subjected to abuse such as bullying, domestic violence, or physical maltreatment.

Shalev et al. (2013) investigated the impact of childhood exposure to violence on telomere erosion in young children in a longitudinal study. They looked at childhood adversity in a prospective manner and estimated telomere length at two different ages- at age 5 years-old and again at 10 years-old. Domestic abuse, repeated bullying victimization, and physical maltreatment were all measured. The researchers hypothesized that cumulative exposure to violence would be associated with increased telomere erosion, even at a young age, based on evidence that the effects of stress are cumulative. DNA samples were collected via buccal swabs from 2,232 British Children and it was found that stress-related accelerated telomere erosion can already be observed during childhood.

On a molecular level, the effects of stress via exposure to bullying are alarming, especially when you consider prevalence rates in the range of 5-30% (Shalev et al., 2013) These effects include improper brain maturation and accelerated cellular aging via reductions in telomere length. These changes in the DNA and the brain chemistry of adolescents may manifest themselves in several macro ways (Shalev et al, 2013).

### **Effects on the Individuals**

Bullying has been associated with an increased risk of developing co-occurring psychiatric illnesses including depression, anxiety, eating disorders, and drug abuse. (Kaltiala-Heino et al., 2000). Psychosomatic symptoms of stress are also a common effect on all parties involved in bullying. Most of the literature differentiated how the bullying affected the victim, the bully, and the bully-victim. The effects of bullying were also delineated between short-term and long-term effects.



**On the victim.** According to Forero et al. (1999), bullied students were more likely to be isolated at school because other students did not want to spend time with them. Bullied students were also more likely to dislike school, to be current smokers, and to skip school days without their parents' permission. The loneliness and isolation that a victim of bullying experiences was oftentimes expounded upon by Nansel et al. (2004) in their statement "Youth who are victimized are likely marginalized from the mainstream peer group, lacking access to prosocial peers who provide role models of appropriate social skills and protection against bullying" (p. 5). The increased likelihood of being a current smoker appears to not stop at cigarettes but extend to other substances like alcohol and illicit/hard drugs. Li and Shi (2015) noted that all bullied youth are at a higher risk for other drug use and that, based on multinational studies, illegal drugs seem to be a universal preference for youth victimized by bullying. As cyberbullying arose and permeated school environments, a recent study by Lu et al. (2019) showed that both cyberbullying perpetration and victimization contributed to unique variances in absenteeism, anxiety, depression, poor grades in school, physical health and self-esteem while controlling for in-person bullying.

Olweus (1991) found that boys victimized between the ages of 12 and 16 had higher levels of depression as young adults (as cited in Bond et al., 2001). However, Bond et al. (2001) found that the effect of bullying on mental health status was the clearest for girls; significant associations between victimization, mental health status, and measures of social relationships were made by Bond et al. (2001). The researchers concluded that a history of victimization is a good predictor of the onset of self-reported

symptoms of anxiety or depressive symptoms and that this remained true after adjustment for other measures of social relations. Kaltiala-Heino et al. (2000) noted that victimization, which is perceived as chronic adversity and lack of support from peers, had been associated with depression.

Nansel et al. (2004) reported that victims of bullying in Israel, the Republic of Ireland, and the United States were 1.98 to 2.27 times more likely than noninvolved youth to carry a weapon. Lu et al. (2019) speculated that one possible reason for adolescent weapon carrying was the involvement in bullying, either as a victim or as a perpetrator. Specifically, to cyberbullying, victimization may associate with weapon carrying because, as suggested in general strain theory, the experience of cyberbullying victimization can result in delinquent coping. Lu et al. (2019) discovered a significant longitudinal finding that weapon carrying predicted cyberbullying victimization. Similarly, Livazovic and Ham (2019) found that cyberbullying victims and offenders were found to be more likely to be absent, have poor grades, carry guns, and have more detentions and suspensions in a school environment.

Finally, a growing concern among adolescent youth is the prevalence of suicide and suicide related behavior. According to the CDC (2014), bullying and suicidal behavior have a similar relationship. This suggests that youth who reported any involvement with bullying behavior were more likely than youth who did not report any involvement with bullying behavior to report high levels of suicide-related behavior. There were reports of children who have committed suicide because they had been victims of bullying (Kumpulainen & Räsänen, 2000). In 2015 nearly 6,000 youth ages 10

to 24 died by suicide. In particular, the prevalence of suicide among youth ages 15–19 has been on the rise in the past decade. There were eight deaths per 100,000 youth in 2005, but this increased to ten deaths per 100,000 (for a total of 2,061 deaths) in 2015 (Kumpulainen & Räsänen, 2000). The rate at which youth have contemplated or attempted suicide is much higher. In 2015, about one in six young people reported having seriously considered suicide (Kann et al., 2016) and about 9% of youth in grades 9 to 12 attempted suicide (Li & Shi, 2015). It should also be noted that studies on Native American youth indicate that this population is in desperate need of assistance; the prevalence rate of suicide among Native Americans ages 18–24 nearly doubled the national average (Li & Shi, 2015). In a large statewide sample of sixth, ninth, and twelfth grade students involved in verbal and social bullying, Borowsky et al. (2013) found that 29% of frequent victims reported suicidal thinking or a suicide attempt during the past year and longitudinal studies suggested that youth involvement in bullying was a risk factor for later suicidal ideation, suicide attempts, and deaths by suicide.

**On the bully.** Forero et al. (1999) observed that bullies were found to be more likely to hate school and partake in health-damaging habits such as smoking and consuming alcohol. According to this study, these individuals experienced frequent and high scores for psychosomatic symptoms, spent four days or more with friends after school, and spent three or more evenings out with friends. According to Kaltiala-Heino et al. (2000), bullies were more likely than their victims to have several mental health issues.

Adult antisocial development has been linked to being a bully (Kaltiala-Heino et al., 2000). For example, bullies have been shown to have more felony convictions later in life, as well as a greater risk of committing extreme and recidivist crimes. (Kumpulainen & Räsänen, 2000). Olweus (1992) concluded that former bullies had a 4-fold increase in criminal behavior by the age of 24 years, with 60% of former bullies having at least one conviction and 35%-40% having three or more convictions (as cited in Nansel et al., 2001). These findings have been substantiated several times over the years. Undheim and Sund (2010) and Poon (2016) noted that a troublesome consequence for students who were aggressive toward others was the susceptibility to future problems of violence and delinquency. Evans et al. (2018) echoed these findings in their own study where they found that adolescents who harassed others had higher levels of criminal delinquent behavior up to 11 years later. They also found that cumulative bullying perpetration was linked to higher levels of aggression and decreased future optimism. The CDC (2014) discovered that youth who reported frequently bullying others were at an increased risk for suicide-related behavior. In short, the prognosis for bullies as they grow older is not promising (Carney & Merrell, 2001).

**On the bully-victim.** Kumpulainen and Räsänen (2000) showed that that children who were bully-victims (both a bully and a victim) at early ages not only had the most concurrent psychiatric symptoms when compared to other children, but also had more psychiatric symptoms later in life. Similarly, Copeland et al. (2013) showed that both male and female bully-victims were at highly increased risk for depression. Their

findings provided evidence that being a victim of bullying, or being both a victim and a perpetrator, is a risk factor for severe emotional problems in both males and females, regardless of pre-existing issues.

Bully-victims also had the highest rates of suicidality with 25% reporting suicidality in early adulthood as compared to 6% of those in the category (Copeland et al., 2013). Bully-victims also reported the highest rates of depressive disorders (22% vs. 3% in neither group), generalized anxiety (14% vs. 3%), and panic attacks (38% vs. 5%). The CDC (2014) stated that youth who reported both bullying others and being bullied (bully-victims) had the highest risk for suicide-related actions of any group who reported involvement in bullying.

In summary, the involvement in bullying during the formative years of adolescent development can have significant repercussions, both short term and long term, for all parties involved. The effects of bullying can be seen on a molecular level in adolescent youth in the form of irregulated cortisol responses to stress. Irregulated cortisol responses to stress are associated with social and behavioral problems (Ouellet-Morin et al., 2011). These social and behavioral problems, such as criminality, delinquency, substance abuse, and suicide, have been shown to manifest themselves as long as four decades after initial exposure (Li & Shi, 2015). It is indisputable that the effects of bullying on those involved can cause deep, long lasting, and profoundly negative consequences to individuals and society as a whole.

## The Causes of Bullying

Livazovic and Ham (2019) found that low cognitive empathy is a risk factor for bullying perpetration and that narcissism and exploitativeness were found to be associated with both conventional and cyberbullying perpetration. Specifically, to cyberbullying perpetration, cyberbullies were frequently low self-esteem introverts or underachievers who often felt victimized and lacked basic social skills. Many of the cyberbullies felt positive about their actions, thought they were funny, or that the victim somehow deserved to be harassed, and therefore thrived upon the inflicted emotional harm they caused. Whereas non-bully perpetrating students might have felt negative emotions like guilt and sorrow towards their actions and the effects it had on their victims, bullies often had low self-control and high impulsivity and were unable to see the consequences of their actions (Poon, 2016).

Bullies perceived themselves as dominant and appreciated dominance (Kaltiala-Heino et al., 2000). This perception may be due to the nature of the parenting they experience, especially toward young boys. For example, parental tolerance of the expression of aggressive behavior (i.e., dominance) was found to be higher in the case of boys than in girls (Karatzias et al., 2001). Karatzias et al. (2001) noted the following five developmental factors in childhood that could increase the risk for development of hostile behavior in adolescence: parental lack of warmth and interest, permissive parental attitude toward aggression, prolonged physical discipline, parental use of emotional violence/abuse, and, ultimately, the temperament/personality disposition of the child. In the same study, children whose parents were of lower-than-average

education and occupational level tended to exhibit more aggressive behavior. Lastly, Carney et al. (2000) summarized these findings nicely by stating that:

Bullies generally come from homes in which discipline is harsh, often corporal in nature, and inconsistent. Supervision tends to be minimal, problem-solving is poor, family conflict level is high, and parents are generally un-or under involved, especially in regard to nurturing (p. 6).

Hinduja and Patchin (2013) reported that the relationship between peers and delinquency had been extensively researched, with multiple longitudinal studies finding that spending time with delinquent peers predicted involvement in delinquency. This implied that aloof, noninvolved parents who took little to no interest in their child's social circle and displayed greater than average levels of permissiveness may have directly facilitated their child's descent into bullying perpetration by allowing their child to spend time with "delinquent peers."

According to international reports, children who watch too much violent television often become more aggressive and have little empathy towards victims of bullying and aggression (Karatzias et al., 2001). Other studies have shown that cyberbullying perpetration was found to be positively linked to socioeconomic status (SES) and technical proficiency, for those with greater access to technology and a higher level of technological experience are more likely to use their technological resources to bully (Livazovic & Ham, 2019).

In a study conducted in the Netherlands with 80,770 students, de Oliveria et al. (2015) showed that physical appearance, individual actions, level of school

performance, physical or mental disabilities, religious aspects, gender issues, sexual orientation, and the inappropriate manner in which some students dealt with punishment were all recorded reasons for bullying.

de Oliveria et al. (2015) found trends in the victim's physical appearance as it relates to both skin color and bodyweight. For example, the researchers concluded that a student's skin color or ethnicity were reported as being significantly associated with victimization. Furthermore, being overweight was a strong indicator for social marginalization among US youth and weight-based discrimination remained a significant concern in adult life. One study showed that overweight students were less popular than their normal-weight peers when assessed by certain measures of social factors. The social marginalization of overweight individuals contributed to their lower self-esteem and higher levels of depressive symptoms among overweight youth (Strauss & Pollack, 2003). It is possible this creates vulnerabilities and susceptibilities towards bullying victimization and or perpetration.

Individual behaviors and characteristics associated with victims of bullying included being introverted, passive and submissive, displaying low self-esteem, isolation, a propensity to blame themselves for difficulties, as well as being sensitive, quiet, and wary (Kaltiala-Heino et al., 2000). It is important to note that these behaviors and characteristics are merely associated with each other; there is no direction of causality established. Thus, we cannot know if these behaviors and characteristics are the cause of the bullying or are a result of victimization.



According to Nansel et al. (2001), being bullied was linked to smoking and poorer academic achievement. Similarly, Fu et al. (2012) found that “based on findings from previous research, bullying victimization is more common and intense for students who show lower academic performance” (p. 4). It remains unclear if low academic achievement precedes victimization or if it is, in fact, a consequence of victimization. Nonetheless, the association can be used to inform prevention strategies.

The association between mental health and bullying victimization is an important aspect to explore, especially considering the prevalence of mental health disorders in schools. For context, it is estimated that one in eight young people (13%) between the ages of 5 and 19 years has a diagnosable mental health condition, with 50% of mental health conditions presenting by the age of 14 increasing to 75% by 18 (Spencer et al., 2020). There was evidence as early as 2000, and there was evidence that mental health problems contributed to the student becoming a victim, which again worsened the symptoms of mental problems (Kaltiala-Heino et al., 2000). Carney and Merrell (2000) identified cycles of patterns wherein victims withdrew and when they wanted support from peers, they were less likely to take social or academic risks when they wanted support from peers. Carney and Merrell (2000) state:

a child who lacks in social or physical skills may be branded a loser, someone who is easily targeted. This perception is extremely resilient and robust, and the child is likely doomed to several years of torment. Rejected students who engage in behavior changes to modify their reputations were unsuccessful unless the changes were dramatic (p. 4).

These sorts of negative feedback loops, wherein an existing mental health disorder attracts the attention of bullying and the negative effects of said bullying compounds with the existing (and probably escalating) symptoms of the mental health disorder, serve to amplify the severity and degree of the mental health disorder.

The amount of literature on the associations between bullying and mental health eclipses the amount of literature related to the associations of gender, sexual orientation, and religion with bullying perpetration and victimization. However, a fair amount of research has been done on the way that bullying manifests itself differently between the genders.

In summary, there are many causes of bullying; one will find a multiplicity of factors that make it very difficult to attribute the cause of bullying to one single agent. Sufficient insight into the causes and effects of bullying have been gathered to allow for the investigation of prevention strategies, which is explored in the next and final section.

### **Bullying Prevention Strategies**

On a molecular biological level, according to animal and human research, the brain is especially vulnerable to stress during both early childhood and old age, possibly because it undergoes such significant changes during these two time periods (Lupien et al., 2009). Early-life stress is now linked to increased reactivity to stress and cognitive deficits in adulthood, implying that the consequences of stress at various stages of life overlap. It was shown earlier that chronic exposure to stress in the form of persistent

and repeated bullying literally affects the brain chemistry of the participants in potentially long-lasting ways.

Beyond improper brain development and an imbalanced/irregulated brain chemistry, according to Forero et al. (1999), students who were involved with bullying, as either a bully, the bullied, or a combination of both, showed a statistically significant association between psychosomatic symptoms and smoking. Psychosomatic symptoms and smoking/substance abuse will induce stress, not only to the victim/bully and their families, but also onto society at large.

Beyond psychosomatic symptoms and smoking, severe emotional and mental health problems have been associated with involvement in bullying (CDC, 2014). These severe emotional and mental problems associated with bullying involvement manifest themselves in a number of extremely disturbing ways, including suicide and school shootings. According to the CDC (2014), being involved in bullying in some way—as a bully, a victim, or a bully-victim—is one of several significant risk factors that appears to raise the risk of suicide among youth. It is precisely because of remarks from leading regulatory bodies like these that led Li and Shi (2015) to exclaim: “suicide prevention should be part of the conversation in preventing and responding to bullying. Prevention strategies are necessary for all bullied youths because they are at elevated risk for depression and suicide” (p. 10).

Prior to committing their violent actions, 2/3 of those who intended or carried out school shootings in the United States were bullied and had violent ideations (Vanderbilt & Augustyn, 2010). From the perspective of the bully, given the known risk

for developing antisocial disorders and mental disorders in adulthood, bullies may need assistance for the underlying problem to stop maladaptive development (Kaltiala-Heino et al., 2000). Insofar as anti-bullying campaigns might be effective in reducing the likelihood and occurrences of school shootings, the design, creation, and implementation of effective anti-bullying campaigns are necessary.

Early identification and intervention of bullying associated activity and intervention greatly increased a teenager's chances of being able to enjoy a healthy and productive future (Spencer et al., 2020).

**School environment.** According to Forero et al. (1999), "a positive school environment may increase health promoting behaviors and it is likely that bullying and its consequences can be reduced if the school does not tolerate bullying" (p. 4). One example of such an approach is the Bullying at School Program, developed by Olweus. Its main goal was to restructure the social environment by combining positive parental and teacher participation, setting firm limits to inappropriate behavior, and using non-hostile, non-corporal sanctions on rules violations on a consistent basis. This dependable adult-child interaction model served as groundwork for the other intervention characteristics. There were four objectives to the intervention: To educate people about it, increase awareness of the problems, increase teacher and parental involvement, and develop clear rules against bullying and use praise consistently; provide support to victims (Carney & Merrell, 2001). Other derivations include The Whole School Response Program, the Quit It! Program, and other general Positive Behavioral Intervention Support (PBIS) programs.

Empowering teachers with authority to sanction aggressive acts and the wisdom to act consistently across a school as a cohesive unit may also be an effective prevention strategy. Carney and Merrell (2001) state “the degree at which teachers are not empowered to conform and sanction threatening or aggressive acts toward other students could be thought of as inversely proportional to the likelihood that they will also be victims of coercions, threats, and/or physical attacks by their students” (p. 6). This implies that not only does disempowering teachers rendered the victims more susceptible to the aggressive acts of the bully, but the bully may very well escalate the magnitude of their bullying and expand their targets outside of traditional peer-to-peer relationships.

**Bystanders.** According to Vanderbilt and Augustyn (2010), bullying cannot sustain itself without the active encouragement or passive acceptance of bystanders. Although oftentimes the prevalence of victims/bullies make up a minority of the overall student population and the majority of the student body could be considered “bystanders”, the bystanders are not immune from the negative effects that bullying has. In fact, youth who have witnessed but not engaged in bullying behavior reported feeling more vulnerable and having lower sense of connectedness than youth who had not witnessed bullying behavior (CDC, 2014). As a bystander, witnessing bullying can be called toxic stress because adolescents sometimes feel helpless to stop the bullying and fear becoming the next target, which can contribute to poor health outcomes. The more negative or prosocial bystander behavior youth engage in, the more their behavioral health improves. Bystanders who are prosocial should be praised and encouraged by

teachers and counselors. The power inherent in the bullying dynamic could shift to the pro-social side if all adolescents moved to intervene on behalf of victims, potentially reducing the frequency and severity of bullying behaviors (Evans et al., 2018).

**Parents.** Parents have a huge influence on the behavior of their children. Even if parents are unable to directly supervise their children's actions, the supportive relationship (or bond) between parent and child will protect the youth from engaging in deviant behavior. Youth who have a close relationship with their parents are less likely to act in ways that are inconsistent with their common beliefs, whether or not their parents are present (Hinduja & Patchin, 2013). Parental hostility and directiveness, insufficient supervision, lack of warmth and inconsistent discipline have been linked with the child becoming a bully. Alternatively, parental overinvolvement with the child has been linked with the child becoming a victim (Kaltiala-Heino et al., 2000). Furthermore, overinvolvement by parents can be linked to a lack of independence among these children, making them more vulnerable to bullying (Nansel et al., 2001). Salazar et al. (2017) state that “working with parents is an important part of any well-rounded strategy to address bullying that has the potential to be effective” (p.2). Lastly, strategies to identify the children being raised by parents who display the types of attributes that generally are associated with a child being a perpetrator or victim of bullying also could be part of a well-balanced anti-bullying campaign strategy.

**Clinicians and licensed professionals.** The pediatric provider has several important roles to play in supporting the individual patient and addressing the bullying environment. For example, if a family brings a child in for attention or hyperactivity

issues at school, ADHD may be the first diagnosis that comes to mind. However, a comprehensive history of onset, duration, and location of the symptoms could reveal concerns of bullying (Vanderbilt & Augustyn, 2010). It has been recommended that licensed professionals could counsel the families and child. Guidance has been issued to clinicians to inform their practices. In the case of the victim, the clinician can empathize with the child in order to inspire and comfort him or her. The clinician should not put blame on the victim or ignore the child's concern. The provider should give advice on how to prevent situations where bullying may occur. The clinician should identify safety issues such as suicidal ideation and plans, substance abuse, and other high-risk behaviors (Vanderbilt & Augustyn, 2010). Once a bully is identified, the clinician should look for the risk factors for this behavior such as family dysfunction or conduct issues. The clinician should label the behavior as the problem and not the child (Vanderbilt & Augustyn, 2010). Finally, it has been recommended that clinicians and other licensed professionals advocate for bullying prevention, specifically a whole school approach, which has been shown to be the most effective way to stem the bullying tide (Vanderbilt & Augustyn, 2010).

In order to mount a successful antibullying campaign, one must consider an array of important variables. These variables include the nature of the school climate, the nature of the home environment, the propensity of bystanders to act pro-socially, and the propensity of a clinician to provide a differential diagnosis. If all the variables can be addressed and changes can be made to align on a coherent anti-bullying

message, it is possible (some might say plausible) to envision a better world and brighter future for the children.



## CHAPTER III: DISCUSSION AND SUMMARY

### Summary of Literature

Bullying can be defined as a specific type of aggressive behavior that is intended to harm (physically, emotionally, socially, etc.), occurs repeatedly or repetitively, and exists between two parties in which there is an inherent power imbalance (Carney & Merrell, 2001; CDC, 2014; de Oliveria et al., 2015; Forero et al., 1999; Olweus, 1999). The power imbalance may be physical, psychological, or social and the violent actions may be verbal, physical, or psychological (Nansel et al., 2001). A unique, modern subset of bullying has arisen alongside the rise of technology and this form of bullying has been termed “cyberbullying.” Cyberbullying is the deliberate and repeated misuse of communication technology by an individual or group to carry out the aggressive act of bullying (Kowalski & Limber, 2007; Salzer et al., 2017).

Bullying can manifest itself in a multiplicity of ways and with differing intensity, duration, and motives (Bond et al., 2001; Karatzias et al., 2001; de Oliveira et al., 2015). Some forms are more common overall while some are more common to specific genders, sexes, and ages. For example, verbal bullying (teasing, name calling, etc.) frequently occurs across the board, whereas aggressive physical bullying and social exclusion/isolation occur more frequently in boys and girls, respectively (Hazler, 1999; Kaltiala-Heino et al., 2000; Li & Shi, 2015; Nansel et al., 2004). Cyberbullying is a universal manifestation that does not appear to be favored by any population subset (Hinduja & Patchin, 2013; Livazovic & Ham, 2019; Lu et al., 2019; Salzer et al., 2017). Manifestations of bullying in the form of cyberbullying have unique characteristics when

compared to traditional schoolyard bullying. Principally, the degree of anonymity that a cyberbully can maintain far eclipses that of a traditional schoolyard bullying and certain studies have shown that adolescents perceive the anonymous nature of cyberbullying as being more important than the medium itself (Sticca & Parren, 2012).

Many studies over the last two decades have shown that bullying is pervasive around the globe and infects almost all school environments universally, albeit to a different degree (Bond et al., 2001; Forero et al., 1999; Kaltiala-Heino et al., 2000; Nansel et al., 2001; Nansel et al., 2004; Vanderbilt & Augustyn, 2010). Prevalence rates regarding experience with the act of bullying (as a bully, victim, or bully-victim) range from low single digits (around 5%) to the majority of students (50%+) when measurements are both cross sectionally and longitudinally taken. The stark differences in prevalence rates can be attributed to several factors namely the maturity of a school's anti-bullying environment and the nature of the cross-sectional self-reporting questionnaire used to capture the data (Boroswsky et al., 2013; Kann et al., 2016; Karatzias et al., 2001; Kumpulainen & Rasanen; Poon, 2016; Sticca & Parren, 2012). Bullying among adolescents in schools exists as a universal, trans-national problem that should not be treated as simply a rite of passage from adolescence to adulthood because there are serious effects that bullying has on those involved (Copeland et al., 2013).

The effects of bullying have been documented on a molecular level as the study of stress on the brain and the cell has evolved over time. Studies have shown that chronic exposure to stress inducing stimuli (i.e., bullying) during adolescence alters

one's brain chemistry and genetic integrity in ways that have serious adverse effects on the individual (Shalev et al., 2013; Sugden et al., 2010). Exposure to bullying has also been associated with the following: psychosomatic symptoms and mental disorders such as anxiety, depression, and substance abuse both during adolescence and later in life (Forero et al., 1999; Kaltiala-Heino et al., 2000; Kumpulainen & Rasanen, 2000), increased likelihood of carrying weapons particularly to school (Borowsky et al., 2013; Carney & Merrell, 2000; Lu et al., 2019; Nansel et al., 2004) being involved with serious and recidivist crime (Kumpulainen & Rasanen, 2000), and suicide (Borowsky et al., 2013; CDC 2014; Li & Shi 2015; Spencer et al., 2020).

The causes of bullying are much harder to deduce than the effects that bullying has on an adolescent because the nature of self-report cross sectional studies are such that associative relationships, not causal relationships, are often determined. Potential causal agents that have been associated with bully perpetration among adolescents include poorly developed social skills, coming from home lives that are inconsistent, involve corporal punishment or other forms of harsh discipline, and underlying genetic predispositions that may render an adolescent more likely to engage in or respond with aggressive behavior (Sugden et al., 2010; Undheim & Sund, 2010). Socioeconomic status and technological proficiency have been shown to be potential causal agents strongly associated with cyber bullying perpetration (Hinduja & Patchin 2013; Lu et al., 2019; Livazovic & Ham, 2019). Potential causal agents associated with bullying victimization include intellectual, emotional, and social immaturity, obesity, race, religious affiliation, socio-economic status, and underlying genetic predispositions that

might render an adolescent more susceptible to respond to stress-inducing stimuli in a manner that insights further bullying victimization (creating a negative feedback loop) (Bond et al., 2001; Carney & Merrell, 2000; Kaltiala-Heino, 2000; Karatzias et al., 2001; Nansel et al., 2001; Undheim & Sund, 2010; Livazovic & Ham, 2019; Undheim & Sund, 2010).

Preventing the act of bullying through the design and implementation of anti-bullying campaigns and strategies has been shown to have a material impact on the prevalence and magnitude of bullying. Fostering a positive (anti-bullying) school environment can be achieved by engaging the positive assistance of bystanders and raising awareness of the issue and its effect on both school and staff and parents (Bond et al., 2001; Forero 1999 et al.; Nansel et al., 2004; Salzer et al., 2017; Spencer et al., 2020). Examples of such programs includes the Olweus' Bullying at School program, the Whole School Response Program, and the Quit It! Program (Carney & Merrell, 2001). Engaging and training non-school related personnel like clinicians, medical professionals, counselors, and mental health experts to recognize the symptoms of bullying to address the root cause has shown promise in preventing bullying as well (Borowski et al., 2013; Evans et al., 2018 Vanderbilt & Augustyn, 2010).

### **Limitations of the Research**

A variety of search engines were used to collect literature for this review using the following key words "definition of bullying" "manifestations of bullying" "prevalence of bullying" "effects of bullying" "causes of bullying" and "bullying prevention strategies." These terms were searched with with the following databases: of Educator's

Reference Complete, CLICsearch, NCBI, Google Scholar, Academic Search Premier, and ProQuest Database were conducted from 1990-2021. This list was narrowed by reviewing empirical published studies and peer-reviewed journals that were centered around the causes, effects, and prevention strategies of bullying that also addressed the guiding questions. The search was further narrowed by focusing on adolescent youth and disregarding articles outside of that age range.

There are limitations in the research that was reviewed. Though a lot of the research had sufficiently large sample sizes, many of the longitudinal and non-self-report cross-sectional studies (i.e., clinical studies) had much smaller data sets. Cross-sectional studies are good for understanding associations but do not address specific casual relationships to bullying. Often the nature of the questionnaires limits the scope of bullying to a few choice behaviors which renders the study susceptible to underrepresentation. Additionally, the scope of potential symptoms one might experience that appear on a self-reported questionnaire is limited and risks misrepresenting the full impact that bullying has on youth health. Most of the research addresses the link between bullying and psychosomatic symptoms but does not acknowledge specific treatment plans or detailed prevention strategies. There seemed to be a lack of research focusing on specific instructional strategies for a classroom or how teachers could change the way they teach to prevent bullying behaviors in favor of school-wide or district-wide approaches.

### Implications for Future Research

The implications for future research based on the literature reviewed are abundant. First and foremost, building off the limitations, when considering “What is Bullying?”, future research should aim to distill the complex behavior that is bullying down to its most basic elements and use that framework internationally. If the international academic community studying bullying was to adopt a single framework there would be much more consistency and repeatability in the data gathered. This would increase the integrity of the data and the conclusions drawn.

Additionally, because bullying manifests itself in a multiplicity of ways, bullying is often measured in a multiplicity of ways as well. These inconsistencies have implications on the direction of future research. For example, if cross-sectional studies are to remain the dominant form of measurement, future researchers should focus their energy on constructing an internationally accepted, universal set of questions that students would self-report on. This alignment would improve the integrity of the data gathered and the conclusions drawn.

Future research should aim to understand causal relationships between bullying and other influencing factors or agents. While this would require a rethinking of how the data is collected, and the strength of the causal relationship is likely to be low at best, it might do wonders for improving the prevention of bullying and treatment outcomes for bullies and their victims. One area of research that could be explored in much greater detail to help uncover causal relationships would be the biology of bullies and their victims. Based on the limited research that was reviewed on this topic, there

appeared to be certain genetic phenotypes that rendered a child more or less susceptible to the negative effects of stress. Adolescents that were raised in an unhealthy environment that may render them more susceptible to engage in the act of bullying (or alternatively become a victim of the act) had elevated or depressed levels of certain biomarkers of stress that could be detected through standard assays. Thus, future research could focus on elucidating the biological element of bullying.

### **Implications for Professional Application**

Because of the universality of bullying, this research has implications for professional application to teachers around the globe and at every level of education. Teacher alignment on what is considered bullying is of paramount importance to ensure the consistent identification and classification of this damaging negative behavior. If there is inconsistency in the identification and classification of bullying, this behavior is likely to persist well into the future and potentially become more pervasive than it is today.

Furthermore, using a standard set of reporting metrics, teachers (either individually or collectively) should seek to understand the prevalence of bullying in their own classrooms and communities. An accurate understanding of the prevalence of this behavior will serve to foster an environment more conducive to learning, personal growth, and positive development. Depending on the magnitude of bullying in one's environment, a variety of anti-bullying campaigns can be constructed and implemented by all stakeholders to create a school climate that works for the betterment of all.

A teacher or a body of teachers that fully grasps and comprehends the totality and severity of the effects that bullying has on not only the bully and their victim, but the greater student body and the community at large are in a unique and powerful position to bring awareness to this topic. Simply by bringing awareness to the nature, extent, and severity of bullying may in and of itself serve to be an effective prevention strategy that materially impacts the lives of all stakeholders. If one less student commits suicide or if one less student chooses *not* to bring a weapon to school, the effort needed to bring awareness to this topic would have paid for itself several times over.

Lastly, bullying is not only a problem in a school environment. Teachers that choose to leave the profession might and probably will encounter instances of bullying in the workplace or whatever environment they find themselves. Thus, having a robust understanding of bullying, its' causes and effects, and how to prevent it, would have utility in places other than the school setting.

### **Conclusion**

Bullying among adolescents is a phenomenon that has been chronicled extensively over the last 50 years all around the world. Bullying is defined as an aggressive act that repeatedly occurs overtime between two parties in which there exists an inherent power imbalance. Bullying negatively impacts all parties involved in a variety of ways, including transient psychosomatic symptoms to long-lasting effects such as depression, anxiety, and suicidal behavior. Bullying is caused by a myriad of factors including personality traits and predispositions, school and home environments,



parental teaching and nurturing styles, etc. A plethora of anti-bullying campaigns have been designed and implemented to positive effect that broadly work by engaging all stakeholders involved to act constructively to end this detrimental behavior.

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