2017-07-29

The Language of Bullying and Its Impact on Physical Health

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UNIVERSITY OF MIAMI

THE LANGUAGE OF BULLYING AND ITS IMPACT ON PHYSICAL HEALTH

By

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A DISSERTATION

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Doctor of Philosophy

Coral Gables, Florida

August 2017

UNIVERSITY OF MIAMI

A dissertation submitted in partial fulfillment of
the requirements for the degree of
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CHUDNOVSKAYA, ELENA VLADIMIROVNA (Ph.D., Communication)

The Language of Bullying and Its Impact on Physical Health (August 2017)

Abstract of a dissertation at the University of Miami.

Dissertation supervised by Professor Diane Millette.
No. of pages in text. (97)

Bullying is recognized as a destructive phenomenon by most people who encounter this type of behavior. Bullying attracts public attention because of its negative impact on the victims in various settings. Although bullying is widely associated with interpersonal and social issues among children, this problem also occurs in universities and the workplace. Victims of different ages, whether they are schoolchildren, college students, or professionals experience mental and physiological problems, including stress, depression, and anxiety. In some extreme cases, the targets of bullying commit suicide, or vent their stress and frustration through public violence. Therefore, it was important to gain a greater understanding of how different strategies used by bullies impacted victims. Previous research addressed the negative impact of bullying on physiological health of victims. However, little attention has been focused on the impact of bullying on the physical health of victims. In addition, few studies discussed the communication aspect of this problem such as verbal aggressiveness. The purpose of this study was to examine whether bullying had a negative impact on the physical health of college students, and how verbal aggressiveness related to the bullying process. Participants of this study included 419 undergraduate students at a southeastern university in the United States. Confirmatory

Factor Analysis (CFA) was conducted in order to evaluate how types of traditional bullying, cyberbullying, and verbal aggressiveness associated with physical health issues (i.e., sleep disturbance, headaches, gastrointestinal problems, and respiratory infections). The results of this study indicated that traditional bullying in the form of verbal and social victimization, cyberbullying in form of visual victimization, and verbal aggressiveness correlated with the examined physical health issues of victims. Implications of this study are discussed, along with limitations and direction for future research.

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to my advisor, Dr. Millette, for her continuous support and inspiration during the writing of this dissertation. She has always been a knowledgeable and caring colleague, who continually conveyed a spirit of excitement in regards to my research and development of this dissertation. I could not have imagined a better mentor for my doctoral studies at the University of Miami.

My sincere appreciation goes to Dr. Beatty for his immense knowledge, patience, and thought-provoking conversations. His guidance helped me throughout the research and writing of this project. Dr. Beatty always motivated me to demonstrate the best of my academic and research skills during the pursuit of my doctoral degree.

I would like to thank my committee members, Dr. Allegro and Dr. Seelig, for their encouragement and insightful comments. Their valuable advice and recommendations helped tremendously to improve my dissertation. I am also grateful to my fellow colleague Jiangmeng (Helen) Liu for her time and stimulating discussions.

Finally, I would especially like to thank my family: my parents and sister for their continuous love and support spiritually throughout my doctoral program and writing of this dissertation.

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CHAPTER I. INTRODUCTION

Bullying has always been a part of social life (Koo, 2007; Olweus, 1995; Roscigno, Lopez, & Hodson, 2009). Dan Olweus (1995), a professor of psychology at the University of Bergen, Norway, published a number of articles and books on aggression and bullying, as well as initiated anti-bullying programs at schools. Olweus provided the following definition of this concept: "A student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students" (p. 197). The example bellow illustrates bullying, one of the serious problems of our contemporary society:

> For two years, Johnny, a quiet 13-year-old, was a human plaything for some of his classmates. The teenagers badgered Johnny for money, forced him to swallow weeds and drink milk mixed with detergent, beat him up in the rest room and tied a string around his neck, leading him around as a "pet". When Johnny's torturers were interrogated about the bullying, they said they pursued their victim because it was fun. (Olweus, 1995, p. 196)

Bullying attracted public attention when *The Times* published a story about a soldier's death as a result of bullying in 1862. *The Times* was the first to address the critical issues of bullying and the serious consequences that can follow such behavior (Koo, 2007). This story may have shocked many people since society did not consider the behaviors that caused this death to be harmful, therefore, accepting bullying as a normal behavior. As bullying became more prevalent, this problem began to draw attention from society and researchers who wanted to know more about this new phenomenon. Another tragic incident connected with bullying was the death of a twelve-year old boy in King's

School in the U.K. This schoolboy died from bullying behaviors by an older group in 1885 (Koo, 2007). At that time, no punishment was given to the boys involved since bullying was considered a misadventure. Bullying was presented as an acceptable behavior among young males, and such behavior was considered a normal part of school life (Koo, 2007).

The next wave of interest regarding the problem of peer bullying was in Scandinavia in the late 1960s and early 1970s (Olweus, 2013). Studies on bullying were conducted including diverse populations; however, they mostly focused on bullying in schools (Koo, 2007; Olweus, 1995, 2011). Initially this problem was discussed as "mobbing." The term mobbing describes "a collective attack by a group of animals on an animal of another species, which is usually larger and a natural enemy of the group" (Olweus, 2013, p. 753). Mobbing was also used to characterize actions of groups (e.g., school class or soldiers) attacking an individual from their own group. Although the term mobbing was widely used in ethology and social psychology, some researchers were concerned that this word might not cover all the issues of relevant aggressive actions among school children. By discussing collective aggression at school, the role of small subgroups or individual bullies could be overlooked. Participants of the mob usually express irrational aggressiveness toward their victim being influenced by strong emotions. This could mislead researchers or teachers in understanding the problem of peer harassment in school settings where a student is victimized by his or her peers periodically and over a certain period of time (Olweus, 2013).

In order to reflect the specifics of peer harassment at schools, the term "bully/victim (or whipping boy) problem" or "bullying" was introduced by Olweus in

1978 to investigate this phenomenon (Olweus, 2013). One of the first and most significant contributions in the research area of school bullying was made by Olweus' (1978) book, *Aggression in the Schools: Bullies and Whipping Boy* (as cited in Smith & Brain, 2000). Anti-bullying research in Scandinavian countries lead to the development of national campaigns to prevent bullying. The first national interventions against bullying were successfully implemented in Norway and Sweden in the 1980s. In Norway, the Ministry of Education initiated a national anti-bullying program in 1983, after a tragic event where three boys, victims of school bullying, committed suicide (Olweus & Limber, 2010). This campaign inspired other European countries including Finland, the United Kingdom, and Ireland to develop similar interventions (Smith & Brain, 2000).

In the late 1980s and 1990s, bullying in school settings was investigated by researchers worldwide in several countries (Olweus & Limber, 2010). In Japan, scholars used a Japanese term "ijime" to describe bullying among schoolchildren and reflecting a specific Japanese problem. The first wave of "anti-ijime" occurred during 1980s, when the nature and frequency of ijime were evaluated. Due to findings based on teacher's reports indicating a decrease in aggressive behavior in schools, an interest in the problem declined. However, research activities and public attention was attracted to this problem again in the mid-1990s after a series of school children suicides caused by school bullying in 1993 – 1995. During the second research stage, Japanese scholars investigated the problem together with western colleagues (Smith & Brain, 2000).

In Finland, research focused on gender differences in the bullying process (Smith & Brain, 2000). Scholars found that direct aggression (physical as well as verbal) was mostly demonstrated by boys, while girls tend to demonstrate indirect aggression (e.g.,

gossip, social exclusion) that was more difficult to identify and discourage this inappropriate behavior (Björkqvist, Lagerspetz, & Kaukiainen, 1992). In Sweden, scholars suggested classification for victims of bullying, which was helpful to evaluate dynamics of the bullying process (Smith & Brain, 2000). In the United Kingdom, a number of anti-bullying interventions were implemented in the early 1990s, resulting in publications and legal documents such as *Action Against Bullying, Supporting Schools Against Bullying,* and *Don't Suffer in Silence.* In the late 1990s, anti-bullying initiatives and campaigns were implemented in other European countries, including Ireland, Germany, Netherlands, Belgium, Italy, Spain, Portugal, France, and Switzerland. In Australia and New Zealand, anti-bullying initiatives were presented by the P.E.A.C.E pack in Australia and the Kia Kaha Program in New Zealand (Smith & Brain, 2000).

In North America, children's aggressive behaviors have attracted attention of scholars over a long period, including research on victimization of young children, social adjustment in childhood (e.g., Crick & Dodge, 1994), and effects of relational aggression (Smith & Brain, 2000). In Canada, the researchers evaluated prevalence and reasons of bullying and victimization among Canadian school children (O'Connell et al., 1997), as well as behavior of involved parties in the process (Atlas & Pepler, 1998; O'Connell, Pepler, & Craig, 1999). In the United States, the bullying problem attracted increased interest of scholars and policy makers after several school shootings (e.g., Columbine High School in 1999; Amish schoolhouse in 2006). Victimization of students, among other reasons, was connected to these shocking events (Duplechain & Morris, 2014; Olweus & Limber, 2010). These tragic situations also contributed to the development of state laws addressing bullying in schools (Smith & Brain, 2000).

Statement of the Problem

Bullying is a serious problem at an individual, organizational and social level (Craig & Pepler, 2007; Koo, 2007; Roscigno et al., 2009). Adolescents often experience bullying at schools (Davis, Stafford, & Pullig, 2014), and the rates of bullying in the United States have increased with the number of students that report being victimized doubling from 2001 to 2011. According to the U.S. National Center for Education Statistics (2013), 5,386,000 students (22%) ages 12 through 18 reported being bullied at school, and 1,713,000 students (7%) indicated being bullied online (as cited in Robers, Zhang, Morgan, & Musu-Gillette, 2015). Some factors contributing to adolescent bullying can result from poor social adjustment and academic achievement, harsh parental discipline, negative school environment, exposure to violence, peer delinquency and level of acculturation in children (Morcillo et al., 2015).

Bullied victims usually demonstrate low self-esteem (Graham, 2016; Juvonen & Graham, 2014), poor performance, inability to concentrate on class assignments, and failure to study (Tshotsho & Thwala, 2015). In addition, they are more likely to suffer from psychological conditions such as depression, nervousness, and stress (Hashem, 2015). Bullying can harm youths to an extent where they see death as the only way to escape their pain. Victims sometimes demonstrate an intention towards suicide (Hazelden Foundation, 2007; Mueller, James, Abrutyn, & Levin, 2015), and as previously reported, "8 out of every 100,000 teenagers committed suicide in 2000 as a result of bullying" (U.S. National Institute of Mental Health, 2000, as cited in Hashem, 2015, p. 117).

Bullying is usually an issue associated with K-12 grade levels, which is considered not to exist once students enter college life (Krasselt, 2014). However, this is

a misconception since bullying can occur in almost any environmental setting, including elementary and high schools, post-secondary schools, and workplaces (Lutgen-Sandvik & McDermott, 2011; Misawa, 2015; Olweus, 1995). Consequently, in a 2011 study conducted at the University of Indiana, 22% of college students reported being victims of cyberbullying, and 15% reported traditional bullying (Krasselt, 2014). Bullying also occurs in the workplace, which has a negative impact on employees and organizations (Misawa, 2015). According to a 2010 U.S. Workplace Bullying Survey conducted by the Workplace Bullying Institute (WBI; 2010), 35% of the U.S. workforce (estimated 53.5 million Americans) reported being bullied at work. Bullying results in harmful organizational outcomes by creating a hostile environment in the workplace. This includes frequent interpersonal conflicts and violence causing decreased productivity, staff turnover, and job stress (Lutgen-Sandvik, 2003; Misawa, 2015). Additionally, companies can experience financial losses. For example, in the United States, "the annual approximate total organizational monetary loss due to bullying of the LGBT sector is $35 trillion" (Hollis & McCalla, 2013, p.10).

Consequences of bullying can have a negative impact on the wellbeing of victims, organizations, communities, and the society as a whole. The nature of bullying is rooted in anti-social and rule-breaking behaviors, and there is new evidence that former school bullies later pursue an anti-social and even criminal path (Olweus, 2011). Olweus (2011) found a strong correlation between bullying in early adolescence and later criminality. His study revealed that former school offenders were heavily over represented in crime registers: "Some 55% of them had been convicted of one or more crimes and as many as

36% had been convicted of at least three crimes in the 8-year period from age 16 to 24" (p. 154 -155).

Scholars in multiple areas examined this phenomenon in order to understand the various ways and tools that could be utilized to eliminate bullying and prevent its dangerous consequences. Research in sociology (e.g., Jamal, Bonell, Harden, & Lorenc; 2015; Sondergaard, 2012; Yoneyama & Naito, 2003), psychology (e.g., Juvonen, Schacter, Sainio, & Salmivalli, 2016; Samnani, Boekhorst, & Harrison, 2016) and business (e.g., Arenas, León-Pérez, Munduate, & Medina, 2015; Pilch & Turska, 2015) examined issues connected to bulling such as social undermining, victimization, injustice and abusive supervision (Craig & Pepler, 2007; Nelson & Lambert, 2001; Tracy, Lutgen-Sandvik, & Alberts, 2005). Communication research focused primarily on negative interactions present in bullying, including family communication about bullied victims' experiences and organizational conflict (Buzzanell & Burrell, 1997; Clair, 1993; Lee, 2001; Matsunaga, 2009; Tracy et al., 2005).

Purpose of the Study

The effects of bullying are damaging to the individual in various organizational settings. The recent issue of *Spectra*, a journal of the National Communication Association, addressed an issue of bullying in academic settings (Keashly, 2015). Bullying has been a problem mostly considered by researchers in sociology and psychology focusing primarily on schools and the workplace. However, Keashly (2015) stated, "25-35 percent of faculty have been targets of workplace bullying with 40-50 percent reporting they have witnessed someone else being bullied" (p. 24). Previously, scholars paid little attention to this issue and its consequences in university settings.

Therefore, purpose of the present study is to fill this gap by examining the prevalence of bullying in universities.

Although there are many studies indicating that bullying has a negative correlation with the psychological and mental health of victims (Trépanier, Fernet, & Austin, 2013; Verkuil, Atasayi, & Molendijk, 2015), insufficient research addresses the influence of bullying on the physical health of victims. In addition, when such studies were conducted, it was not always clear what type of bullying (e.g., traditional, cyberbullying) lead to the negative impact on a victim's health. The aim of the present research is to analyze the impact that actions of bullies have on the victim's physical health.

Bullying is considered as a type of aggression (Koo, 2007; Olweus, 2013), and is recognized as a communication phenomenon through interaction between the parties involved in the bullying process (Tracy et al., 2005). Therefore, exploring the process of bullying and its mechanism is very important from a communication research lens in order to find ways to resist and prevent this toxic phenomenon. Unfortunately, not many studies address the communication context of bullying. In addition, despite the fact that a majority of bullying cases include some element of verbal bullying, verbal aggressiveness has not been widely examined as a separate type of bullying. The present study is designed to examine how verbal aggression, as one form of bullying, influences the physical health of victims in universities.

In order to investigate the process of bullying as a communication phenomenon, and to evaluate the impact of various types of bullying on a victim's physical health in the university setting, this research will be divided into five chapters. Chapter I

(Introduction) presents the general issue of bullying. Chapter II (Review of Literature) discusses the concept of bullying, its characteristics, and different types of bullying; identifies the role of participants in the bulling process; and details bullying in various social and organizational contexts. Chapter III (Methodology) outlines design of the study, research approach, data collection, and procedures of data analysis. Chapter IV (Results) presents findings based on research questions posed in the current study. Chapter V (Discussion) suggests implications of the results, discusses limitations of the research, and provides recommendations for further inquiries and conclusions.

CHAPTER II. LITERATURE REVIEW

Bullying: Definitions

There are various definitions of bullying provided by scholars in the communication field, as well as other social and behavioral science areas. Bullying is typically characterized as the purposeful intent "to hurt another person in such a way as to exercise power over another person" (Raineri, Frear, & Edmonds, 2011, p. 23). Although bullying is generally associated with the playground and a school or children's setting (Rayner, 1997), it is also a serious problem in professional organizations. Moceri (2014) states that "Bullying is repeated negative behavior making the recipient of the bullying feel inferior. … [and] may be a concept related to bias, since both are forms of unfair treatment in the workplace" (p. 16). The following terms address workplace bullying: workplace aggression, mobbing, employee mistreatment, workplace incivility, and employee emotional abuse (Heeman, 2007; Lutgen-Sandvik, 2003; Tracy et al., 2005). Regardless of the setting where bullying occurs, this behavior is associated with negative consequences for the victims (see Hogh, Henriksson, & Burr, 2005; Liu & Graves, 2011; Owusu, Hart, Oliver, & Kang, 2011, for a comprehensive review of this issue). Dentith, Wright, and Coryell (2015) note, "Bullying … is an issue of power, control, and abuse often publicly wielded and always damaging to the victim" (p. 29). In order to harmonize numerous definitions of bullying that can be applied to various settings, scholars identified the following criteria for this phenomenon: (a) Aggressive behavior with intention to do harm; (b) an imbalance of power; and (c) process is carried out repeatedly over time (Houbre, Tarquinio, Thuillier, & Hergott, 2006; Olweus, 1995; Pörhölä, Karhunen, & Rainivaara, 2006).

Characteristics of Bullying

Since harmful intention or aggression, power imbalance, and repeated activities are the main characteristics of bullying, it can be direct or indirect. It can be communicated by words (e.g., threats, mocking, teasing, name calling), via physical contact (e.g., hitting, shoving, kicking, pinching, holding someone back), or by way of social relations (e.g., spreading rumors, socially excluding others) (Houbre et al., 2006; Schumann, Craig, & Rosu, 2014; Yu-Ying & Jiun-Hau, 2015). Bullying is characterized by a power imbalance (Schumann et al., 2014) with children who most often demonstrate more power than those who are victimized (Craig & Pepler, 2007). Their power can derive from individual characteristics (e.g., physical and sociodemographic), and through social advantages (Craig & Pepler, 2007). These individual characteristics could be considered an advantage to some group members, while being a disadvantage to others in the group (Schumann et al., 2014). For example, age can provide a power advantage. As children get older they become bigger and stronger, which gives them power over those who are smaller and weaker. However, studies indicate that this power decreases when children become adults (Schumann et al., 2014).

Another source of power is based on gender differences. Beginning in childhood, males tend to gain more power than females and, therefore, females could be at a higher risk of victimization within certain groups (Schumann et al., 2014). Schumann and his colleagues (2014) analyzed data from 17,777 students in grades six to ten and found that individual characteristics such as being younger, female, and low social economic status (SES) put participants at a power disadvantage and at higher rates of victimization. Other individual characteristics such as race, sexual orientation, and disabilities can be

considered as power disadvantages (Craig & Pepler, 2007). Power can also be "acquired by knowing another's vulnerability (e.g., obesity, learning problem, family background) and using that knowledge to cause distress" (Craig & Pepler, 2007, p. 86). Racial prejudice, religion, fashion clothing, height and hair type are additional features that can be a reason of school bullying (Serra-Negra et al., 2015).

One of the factors contributing to bullying is social advantage. Social advantage is a source of power that could be presented by a dominant role (e.g., teacher versus student), higher social position among peers (e.g., popular versus unpopular student), and strength in numbers, which can lead to bullying group members (Craig & Pepler, 2007). Most adolescent bullies are high in perceived popularity as an indicator of social prominence in the peer group, while victims tend to be unpopular individuals (Garandeau, Lee, & Salmivalli, 2014). Accordingly, bullying often occurs more easily in classrooms of high status hierarchy, characterized by larger division of status within peer groups, compared to classrooms in which students share a similar status (Garandeau et al., 2014). In predominantly hierarchical groups, some members have more power than others. Power can have a negative affect on adult attitudes and behaviors leading individuals to reduced compassion in response to those who are suffering, and decreasing the capacity to take the perspectives of others. Power can make individuals more vulnerable to stereotyping, which can encourage hate and discrimination, and may result in hostile behavior such as bullying (Garandeau et al., 2014).

Another important aspect of bullying revolves around this process being repeated over time as well as persistently in frequency and duration (Tracy et al., 2005). Negative social interactions such as rudeness and mistreatment are considered to be bullying

behaviors when they are repeated over time (Tracy et al., 2005). Craig and Pepler (2007) claimed "with each repeated bullying incident, the power relations become consolidated: The child who is bullying increases in power and the child who is being victimized loses power" (p. 86).

One of the key factors contributing to bullying in adolescence is a feeling of not being accepted by the group, especially at school, where children spend most of their time and develop relationships (Serra-Negra et al., 2015). An individual's poor social adjustment and academic achievement, harsh parental discipline, negative school environment, exposure to violence, peer delinquency and level of acculturation are all risk factors for bullying others (Morcillo et al., 2015).

Process of Bullying

Previous researchers identified main parties and roles involved in the bullying process. These roles include the "bully or perpetrator," "target or victim," "bully-victim," and "bystander" (Houbre et al., 2006; Liepe-Levinson & Levinson, 2005; Olweus, 1995). Roles associated with these terms are described below.

Bullies or perpetrators. Bullies use a higher level of power compared to their victims, which is intended to insult or attack the victims (Liepe-Levinson & Levinson, 2005). Bullies engage in a conscious hostility toward the victim, and communicate their behavior through verbal and non-verbal aggression (i.e., physical and relational) (Liepe-Levinson & Levinson, 2005). Typical bullies often demonstrate an aggressive reaction pattern combined with physical strength (Olweus, 1995). In addition, bullies are often highly emotional, hot tempered, and hyperactive (Yang & Salmivalli, 2015). Olweus (1995) identified several factors influencing development of the aggressive behavior of

bullying among boys, including emotional attitude of the primary caretakers toward children during early years, such as indifference or lack of warmth and involvement: "permissiveness for aggressive behavior by the child; use of power-assertive disciplinary techniques, such as physical punishment; and the temperament of the child (active, hotheaded)" (p. 198).

Targets or victims. Victims are individuals who are attacked or insulted by bullies (Olweus, 1995). Victims usually experience fear and a feeling of helplessness (Liepe-Levinson & Levinson, 2005; Olweus (1995), as well as being cautious, sensitive, and quiet (Liepe-Levinson & Levinson, 2005). Victims are often more anxious, depressed and insecure than children in general, and they tend to have a negative view of themselves and low self-esteem (Yang & Salmivalli, 2015). Olweus (1995) found that victim-boys were usually physically weaker than other boys at school; they were usually viewed as insecure individuals unwilling to resist aggression by bullies. In addition, victims often lack social competence and problem-solving skills, resulting in poor peer interactions in school (Yang & Salmivalli, 2015). Because of low self-esteem, victims often blame themselves for being bullied (Liepe-Levinson & Levinson, 2005), and are unlikely to ask for help making the cycle of bullying difficult to disrupt (Lutgen-Sandvik, 2003). Bullying in childhood could have long term dangerous consequences for victims and "leave scars on their minds" (Olweus, 1995, p. 197). Thus, Olweus (1995) found that former victims of bullying at school were more likely to have higher levels of depression and lower levels of self-esteem at age 23 than their non-victimized peers.

Bully-victims. Bully-victims assume the roles of both bully and victim during different bullying situations (Craig et. al, 2009). Previous research indicated that bully-

victims usually bully others more often than pure bullies and were victimized more frequently than pure victims (Yang & Salmivalli, 2013). Aggressive behavior of bully-victims was often reactive in nature. When victimized by more powerful peers, bully-victims may turn to others whom they perceive to be weaker victims for bullying perpetration. Bully-victims were also more likely to support aggressive reactions towards provocation than their peers in school. It is possible that deficits in self-regulation and aggressive impulsive behaviors of bully-victims allow their peers and teachers to think that peer rejection and maltreatment is "deserved," thereby reducing the empathy felt towards them (Yang & Salmivalli, 2015).

Bystanders. Bystanders are those who witness and/or are aware of the bullying behavior, and their actions can either empower the bully and/or weaken the victim (Liepe-Levinson & Levinson, 2005). Hutchinson (2012) noted most bystanders were afraid of becoming the next victim, and inadvertently supported the bully by doing nothing to prevent violence against the victim. Bystanders simply stand-by and witness how a bully mistreats or insults the victim, which communicates approval for inappropriate behavior of the bully providing more power for the bully and undermining the victim (Liepe-Levinson & Levinson, 2005). Research indicated that in most cases bystanders do not like to be involved in the bullying process although they dislike the bully's behavior (Liepe-Levinson & Levinson, 2005), as well as experience symptoms of psychological distress (Nielsen & Einarsen, 2013).

Types of Bullying

Bullies use verbal and nonverbal language during the bullying process (Tracy et al., 2005), and communicate their aggressiveness to the victims directly and indirectly.

Verbal bullying could be expressed in teasing, name calling, and gossiping. Nonverbal bullying includes isolation/exclusion, excessive monitoring, physical intimidation, and ignored opinions, and it is expressed by physical and relational bullying (Heeman, 2007). Nonverbal bullying can be demonstrated in the form of hitting, kicking, pushing, shoving, and locking indoors (Wang, Iannotti, & Luk, 2012). In addition to verbal and nonverbal communication of aggressiveness, researchers differentiate between direct and indirect bullying. *Direct bullying* behavior is demonstrated by physical and verbal bullying. *Indirect bullying* is communicated through social exclusion and spreading rumors (Ockerman, Kramer, & Bruno, 2014). Boys often engage in more direct bullying behaviors more frequently, while girls are more often involved with indirect bullying (Ockerman et al., 2014). Verbal and nonverbal (physical and social) bullying refer to traditional bullying. In addition to traditional or off-line bullying, recently researcher identified on-line bullying or cyberbullying.

Traditional Bullying

Verbal bullying. Verbal bullying is found in "70 percent of all reported incidents of bullying" (Liepe-Levinson & Levinson, 2005, p. 6), which includes withholding information, humiliating/ridicule, gossiping/rumors, insulting/offensive remarks, being shouted at, teasing/sarcasm, persisting criticism, and threating of violence (Ockerman et al., 2014). Other strategies used by bullies are name-calling, taunting, belittling, teasing, using racist, sexist, and ageist slurs (Liepe-Levinson & Levinson, 2005).

Physical bullying. Physical bullying is less common, representing approximately 30% of bullying interactions; however, this is the most visible form of bullying (Liepe-Levinson & Levinson, 2005). This type of bullying includes biting, choking, scratching,

spitting, tickling, and destroying property of the victim (Heeman, 2007). Other strategies used as a part of physical bullying are "crashing into a student on purpose as she/he walked by," "getting into a physical fight with a student because a bully does not like him/her," "slapping or punching a student," and "throwing something at a student to hit him/her" (Hamburger, Basile, & Vivolo, 2011, p. 44).

Social bullying. Social or relational bullying is referred to as relational aggression (Liepe-Levinson & Levinson, 2005). Relational bullying diminishes the target's self-esteem and includes ignoring, isolating, excluding, taunting, gossiping, writing notes, and spreading rumors. Social bullying includes stares, rolling eyes, sighs, frowns, and sneers (Heeman, 2007). Strategies used by bullies during the process of relational bullying are "letting students out of activities or games on purpose," "getting other students to ignore the victim," and "getting other students to start rumors about the victim" (Hamburger et al., 2011, p. 44).

Technology and Cyberbullying

Besides traditional forms of bullying (i.e., verbal, physical and social), emergence of the Internet and increased consumption of social media provide additional outlets and opportunities for bullying (Chang et al., 2013; Davis et al., 2014). Given the fast pace of communicating via the Internet, researchers are addressing a new phenomenon – cyberbullying. *Cyberbullying* can be defined as "an aggressive, intentional act carried out by a group or individual, using mobile phones or the internet, repeatedly and over time against a victim who cannot easily defend him or herself" (Smith, 2015, p. 376). Mobile phone bullying occurs through multimedia messages, texting and phone calls (Smith, 2015). Victimization through the Internet includes e-mails, chat rooms, instant messages,

social network sites, file sharing files, and blogs (Smith et al., 2008). Cyberbullying could be communicated in the form of *visual bullying* (e.g., inappropriate pictures) and *text bullying* (e.g., rude text messages) (Griezel, Finger, Bodkin-Andrews, Craven, & Yeung, 2012).

Like traditional bullying, cyberbullying is a form of aggression that has negative consequences for its victims. Cyber victims often experience a wide range of psychological issues, including loneliness, anxiety, depression, and diminishing self-esteem (Guo, 2016; Perren, Dooley, Shaw, & Cross, 2010; Ybarra & Mitchell, 2004). Although traditional bullying and cyberbullying have similar characteristics, there are many differences. Cyberbullying is an indirect form of bullying via electronic media (Gan et al., 2014). It is seen as a relational aggression where adolescents try to damage the social relationships or social status of their peers, which can cause psychological distress.

The potential for cyberbullying increases with each new technology, including computer network systems and electronic devices. Cyberbullying may be more dangerous than traditional bullying due to the ability of bullies remaining anonymous and using electronic media during any place and time. This type of bullying makes victims more vulnerable even in their own homes (Carter & Wilson, 2015). Cyberbullying permits the offender to hide his or her identity behind the technology, and this anonymity makes it easier for the bully to offend a victim. An important element is technological devices provide a distancing effect that allows bullies to be more verbally cruel compared to what they typically say in traditional face-to-face bullying (Kowalski & Limber, 2013).

Finally, during the cyberbullying process, bullies do not usually see the victim's immediate reaction, and it is difficult for the victim to escape (Smith, 2015).

Verbal Aggressiveness

Bullying is expressed in verbal and nonverbal aggression, therefore, verbal aggressiveness can be associated with verbal bullying (Tracy et al., 2005) aiming to attack the self-concept of the victim (Infante & Wigley, 1986). Researchers have conceptualized *verbal aggression* as communication that attacks another person's self-concept and is considered to be an expression of hostility because it hurts the person involved (Madlock & Kennedy-Lightsey, 2010). Verbally aggressive messages include attacks on character, competence, and physical appearance; while other forms include teasing, ridicule, threats, and swearing. Studies regarding workplace violence demonstrated that supervisor's use of verbal aggression had a negative impact on subordinates' job satisfaction and organizational commitment (Madlock & Kennedy-Lightsey, 2010).

Language and Communication Strategies Used by Bullies

Vocabulary of bullies. Previous research demonstrates that bullies tend to use mockery, homophobic epithets, biased language, offensive metaphors, and ongoing series of threats (Dzurec, Kennison, & Albataineh, 2014; Hutchinson, 2012; Poteat & Rivers, 2010). Hutchinson (2012) found that some offensive communication tools utilized by bullies are misuse and smothering of language, including use of *mockery and ridicule* regarding the "victim's physical appearance, tastes, family or perceived 'difference' from social norms" (p. 430). Hutchinson provided an example where physical appearance of a big girl made her the victim of bullying at school. Bullies called her names and made

negative comments about her family, just because her physical appearance did not fit the "accepted norms." Some people said to her, "Oh my God, what are you wearing?" The victim was also labeled as "Mummy's girl," because her Mum walked her to school. In addition, she was called "fatty," which is an example of "symbolic humiliation and belittlement" (Hutchinson, 2012, p. 430).

During the bullying process, students often use *homophobic epithets* (Poteat & Rivers, 2010), which generally include pejorative words or denigrating phrases in relation to Lesbian, Gay, Bisexual, and Transgender groups (LGBT) identities or behaviors. Both LGBT and heterosexual young people could be the target of homophobic epithets (Poteat & Rivers, 2010). Boys who engage in bullying tend to use *biased language*, which could include calling each other names or use of phrases, such as "homo," "gay," "lesbo," "fag," "dyke," or "that's/you're so gay" (Poteat & DiGiovanni, 2010). One of the explanations of this offensive behavior is that boys want to prove their heterosexuality and masculinity as a part of social norms. Therefore, during the bullying process, they may use these epithets as a communication strategy to challenge the heterosexuality or masculinity of other boys (Poteat & DiGiovanni, 2010). Some of the most common anti-LGBT remarks used in U.S. schools include expressions such as being "gay" in a negative way. For example, bullies utilize the widely-used expression "that's so gay" to communicate that something is "stupid" or "dumb" (Kosciw, Bartkiewicz, & Greytak, 2012).

Another strategy of verbal bullies is *ongoing series of threats*, which is used to demonstrate their dominant position (Dzurec et al., 2014). In the workplace, bullies can exercise the threat of intimidation towards their victims, which is illustrated in an

example provided by one of the victims, “She said I’d be at risk. I’d be intimidated and she was fearful for me” (Dzurec et al., 2014, p. 285). Other ways to demonstrate superiority in the bullying process include name calling (e.g., “stupid”) and use of a metaphor, as illustrated by one of the victims who said, “we were like a load of sheep; not grown women, not autonomous” (Dzurec et al., 2014, p.285)

Nonverbal bullying strategies. Nonverbal bullying is communicated through physical and relational bullying, and include isolation/exclusion, excessive monitoring, physical intimidation, and ignored opinions (Heeman, 2007). Physical bullying is the most visible, but less common form of bullying, representing approximately 30% of the time spent in bullying interactions (Liepe-Levinson & Levinson, 2005). This type of bullying includes punching, kicking, pinching, biting, choking, scratching, spitting, tickling, and destroying property of the victim (Heeman, 2007). In addition, nonverbal bullying can be communicated through hitting, pushing, shoving, and locking indoors (Wang, Iannotti, & Luk, 2012).

Relational or social bullying (also referred to as relational aggression) diminishes the target’s self-esteem and includes ignoring, isolating, excluding, taunting, gossiping, writing notes, and spreading rumors (Liepe-Levinson & Levinson, 2005). Relational bullying can also include stares, rolling eyes, sighs, frowns, and sneers (Heeman, 2007). Examples of this strategy used by bullies during the process of relational bullying includes, “Told my friends things about a student to get them into trouble,” or “Keep a student away from me by giving them mean looks” (Hamburger et al., 2011, p. 43).

Directions of Bullying Process

Although bullying is associated with the insulting process among peers, the bullying process could also be initiated from top-down and bottom-up at schools and in the workplace. Direction of the bullying act depends on the role of the bully (Cemaloglu, 2011). At schools, top-down processes occur when teachers play the role of bullies victimizing students (Hepburn, 2000), and bottom-up bulling occurs when teachers are victimized by students (Allen, 2010). In the workplace, bullying could be executed by supervisors towards subordinates, among subordinates, and by subordinates toward supervisors (Vandekerckhove & Commers, 2003). The mostly widespread form of workplace bullying is by a supervisor against a subordinate (i.e., downward bullying), which is the most prevalent in the workplace in the U.S. and Europe (Vandekerckhove & Commers, 2003).

Bullying in Various Contexts

Bullying in schools. Bullying is one of the most serious issues in primary and secondary schools (Allen, 2010; Annerbäck, Sahlqvist, & Wingren, 2014; Cemaloglu, 2011; Cowan, 2012). Educators, psychiatrists, and mental health professionals addressed this issue worldwide due to its negative consequences on social life and well-being of the victims. In the United States, approximately three million students were bullied each year resulting in as many as 160,000 students skipping school for fear of being victimized (American Public Health Association, n.d., as cited in Yu-Ying & Jiun-Hau, 2015). The occurrence of different types of bullying among 6^{th} to 12^{th} grade students in 2005-2006 was estimated as the following: 21% physical bullying, 53% verbal bullying, 51% social bullying, and 14% cyber bullying (Shetgiri, 2013).

In addition to widely spread victimization among peers at schools, bullying could be expressed as top-down and bottom-up processes. Twemlow and Fonagy (2005) defined a bullying teacher as "one who uses his or her power to punish, manipulate, or disparage a student beyond what would be a reasonable disciplinary procedure" (p. 2387). Previous researchers reported about half of the students were bullied by teachers in schools (Allen, 2010; Twemlow, Fonagy, Sacco, & Brethour, 2006). Although there are not many studies demonstrating the process of teachers being bullied by students, Terry (1998) reported that almost 56% of high school teachers were bullied at least once by students, 36% bullied sometimes, and almost 10% bullied several times a week.

Bullying in universities. Although there are many studies focusing on bullying in primary and secondary schools, this issue also occurs in universities at various levels of incivility: faculty-to-student, student-to-faculty, student-to-student, and faculty-to-faculty (Luparell, 2007; Marchiondo, Marchiondo, & Lasiter, 2010; Mott, 2014). Mott (2014) examined victimization of undergraduate nursing students in the United States, who often reported cases of bullying by faculty members in nursing education (e.g., belittling, targeting, and being unresponsive or unreceptive to students' needs and questions, and unprofessionalism). Bullying by faculty caused anger, frustration, depression, and decreased confidence in victims (Mott, 2014). Clarke, Kane, Rajacich, and Lafreniere (2012) studied bullying in clinical nursing education among Canadian undergraduate nursing students. Their findings indicated that nursing students experienced and witnessed different frequencies of bullying behaviors most notably by clinical instructors and staff nurses.

Crosslin and Crosslin (2014) examined undergraduate student perceptions and experiences with cyberbullying through text message, email, and social networking sites. It was found that approximately 32% of participants experienced at least two types of victimization. The most often cited reasons of cyberbullied included relationship break-ups or disagreements with roommates, resulting in distrust or avoidance of friends, and in some cases emotional reactions such as suicide intention (Crosslin & Crosslin, 2014). In addition, Çelik, Atak, and Erguzen (2012) stated that cyberbullying was regarded as an increasingly emergent problem in educational settings, putting learners' psychological health, safety, and well-being at risk. They concluded that cyberbullying among young people was associated with significant psychological issues, such as depression, emotional distress, low self-esteem, and poor academic achievement.

Bullying in the workplace. In the workplace, bullying could be executed by supervisors towards subordinates, among subordinates, and subordinates toward supervisors (Salin, 2003; Vandekerckhove & Commers, 2003). Ratings of the bullying in the workplace ranges from 30% to 50% depending on the type of organization and location (Lutgen-Sandvik, 2007; Lutgen-Sandvik & Tracy, 2012; Van Fleet & Van Fleet, 2012). The mostly widespread form of workplace bullying in the U.S. and Europe is bullying by a supervisor against a subordinate, or top-down bullying (Vandekerckhove & Commers, 2003). Bullying in the workplace is a process by which the victim, identified by one or several people, experienced aggression from peers or supervisors (Einarsen, 1999).

One of the characteristics of bullying is repeated exposure to negative acts for a long period (Cemaloglu, 2011). As a consequence of such actions, victims often

experience insomnia, nervous symptoms, melancholy, apathy, lack of concentration and sociophobia (Einarsen, 1999). Einarsen (1999) proposed a definition of workplace bullying as "repeated actions and practices that are directed to one or more workers, which are unwanted by the victim, done deliberately or unconsciously, but clearly causing humiliation, offense and distress, and that may interfere with job performance and/or cause an unpleasant working environment'' (p. 17). Lutgen-Sandvik and Tracy (2012) defined workplace bullying as "a toxic combination of unrelenting emotional abuse, social ostracism, interactional terrorizing, and other destructive communication that erodes organizational health and damages employee well-being" (p. 5). Workplace bullying is sometimes called "mobbing" (e.g. Ertureten, Cemalcilar, & Aycan, 2013; Ozturk, Sokmen, Yilmaz, & Cilingir, 2008) that builds upon a combination of behaviors by workers occurring in various forms, such as harassment, emotional abuse, and incivility (Einarsen, 1999). There are various types of workplace bullying, including work-related bullying (e.g., supervisor changes subordinates work tasks, or makes them difficult to perform); social isolation; personal attacks on employees' private and/or work life by insulting remarks or gossip; verbal threats where employee is criticized, yelled at or humiliated in public; and physical violence or threats (Einarsen, 1999). Bullying in the workplace includes different types of behavior, mostly verbal characteristics (i.e., indirect or direct, passive or active), and only under rare circumstances is it accompanied by physical violence (Pilch & Turska, 2015).

Workplace bullying can be a result of various social and individual factors, including strong interpersonal conflict (e.g., dispute-related bullying), authoritative abuse, and oppressive organizational practices (Pilch & Turska, 2015). Reasons for

uncivil behaviors in the workplace can include unclear and/or overly demanding work expectations, low or compressed salaries, stressful work environment, competition for scarce resources, and professional jealousy (Wright & Hill, 2015). As the consequences of these inappropriate actions, victims experienced high level of stress and decreased level of self-confidence, resulting in quitting their jobs, and in some cases committing suicide (Cemaloglu, 2011). In particular circumstances, a competitive atmosphere is created or encouraged in order to raise productivity and quality of the employees' work.

Negative acts of employee abuse were found in a variety of organizations, including hospitals, universities, manufacturing plants, research industries, and social service agencies (Lutgen-Sandvik, 2003). The level of bullying in a workplace depends on the kind of organization (Cox, 1991; Lutgen-Sandvik, 2003; Spratlen, 1995). Van Fleet and Van Fleet (2012) present results of *The Workplace Bullying Institute* survey indicating that "37% of workers in the United States report that they have experienced workplace bullying and an additional 12% have witnessed it" (p. 210). However, some studies demonstrated higher rates of bullying in the workplace. Among 451 individuals surveyed across the United States, it was indicated that "53.2% of their respondents have been bullied, 57.4% have witnessed bullying, and 6.56% have been bullies" (Van Fleet and Van Fleet, 2012, p. 210). According to the 2009 Doctor-Nurse Behavior Survey conducted among 13,000 participants, 85% reported experiencing degrading comments and insults in the workplace, while 73% experienced yelling and other typical misbehaviors including "cursing, inappropriate joking and refusing to work with one another" (Johnson, 2009, p.6). Fox and Stallworth's (2005) researched among 262 employees and found that "nearly all (97%) had experienced some form of general

bullying over the past five years at work. Several of the bullying items were reported as having been experienced "quite often" or "extremely often" by over 15% of the participants" (p. 452). The most common forms of bullying were demeaning employees in front of co-workers or clients, flaunting employees status in a condescending manner, giving excessively harsh criticism of employees' performance, spreading false rumors about employees' work performance, intentionally withholding necessary information from employees, blaming employees for errors, and insulting employees or putting them down (Fox & Stallworth, 2005). Workplace bullying presents significant costs for both employees and employers, which included: (a) employees refocusing energy from productivity to self-protection, (b) frequent staff turnover and high burnout rates, (c) increase in employees' use of sick leaves, and (d) increase in medical and worker's compensation claims as a result of increased job stress (Lutgen-Sandvik, 2003; Rogers & Kelloway, 1997). In addition, organizations lose positive credibility, and can suffer loss of good reputations (Lutgen-Sandvik, 2003).

Bullying as Communication of Power over Minority Groups

Contemporary society differentiates between minority and majority groups. A *majority group* is a dominating group in the society that usually hold more power, privileges, and higher social status than a minority group. The difference between majority and minority groups is defined by their roles and ranks, not by the number of its representatives. *Minority groups* are formed based on the following characteristics: ethnic and race, sexual orientation, gender, and disabilities. People of color are referred to as *racial* and *ethnic minorities* (Makopondo, 2006). There are four main racial/ethnic groups in the United States: Whites, Black/African-Americans, Hispanics/Latinos, and Asians

(Caetano, Clark, & Tam, 1998; Fox & Stallworth, 2005, Peguero & Jiang, 2014). White Americans represent the racial majority. *Sexual minority* group is presented by lesbian, gay, bisexual, transgender, and queer people (Heck, 2015), while heterosexual group represents the majority group. Women usually refer to *gender minority* group as they are often regarded as the "weaker" sex. This stereotype has portrayed women as vulnerable to abuse and victimization (Leigh, Robyn, Madelyn, & Jenni, 2014). Another minority group is represented by *people with disabilities*. Physical disabilities can be people with arthritis, back or spine problems, and heart troubles (Farley, 2000). In the United States, people with disabilities represent about 10% of the population (Arango-Lasprilla, Ketchum, Hurley, Getachew, & Gary, 2014).

Representatives of minority groups are vulnerable to victimization from the representatives of majority group due to the power imbalance. Kuyper (2015) states that lesbian, gay and bisexual group (LGB) employees often receive negative reactions on their sexual orientation and frequently experience high level of victimization in the workplace in the United States, representing significantly more cases of workplace victimization than heterosexual co-workers. Other minority groups, such as women, are easier targets for bullying in the workplace (approximately 60%) mostly because of the male-dominated environment (Workplace Bullying Institute as cited in Cobb, 2012). Another high risk group for bullying victimization are people with disabilities (Blake, Lund, Zhou, Kwok, & Benz, 2012; Espelage, Rose, & Polanin, 2015). Espelage, Rose, and Polanin (2015) suggest that students with disabilities may be at higher risk of involvement in the process of bullying than their counterparts without disabilities.

Racial/Ethnic Bullying

One of the reasons for victimization of the minority group representatives is stereotyping. Stereotype is an exaggerated generalization about an entire category of people, such as a racial, ethnic, or religious group, "that is thought to apply to everyone in that category" (Ritzer, 2016, p. 198). People who tend to stereotype others assume that "they possess all the characteristics of the categories they belong to" (Farley, 2000, p.14). In other words, stereotypes communicate generalizations about a group, without consideration of individual uniqueness. Usually, media promotes some racial-ethnic stereotypes about minorities, most of which are negative and unfavorable (Zhang, 2010). For example, Blacks are frequently depicted as criminals who are aggressive and violent (Zhang, 2010). Black/African Americans are also portrayed as economically disadvantaged, with poor academic performances, and increased physical or athletic abilities (Peguero & Jiang, 2014). Latinos are typically portrayed as lacking intelligence and education, and holding low-status positions (e.g., service workers) (Zhang, 2010).

Power inequality between representatives of majority and minority groups might put representatives of ethnic/racial groups in higher risk of victimization that includes bullying. Fox and Stallworth (2005) claim, racial/ethnic bullying refers to the type of behavior when individuals attack the victim explicitly because of race or ethnicity. Wu, Lyons, and Leong (2015) state racial/ethnic bullying is a form of discrimination, and this process "involves repeated instances of negative racial/ethnic-based acts that lead to a widening power differential between the perpetrator and victim as the bullying continues over time" (p. 156).

Specifics of racial/ethnic bullying could be explored by focusing on relationships between in-group and out-group members. Groups are usually created based on similarity of individual characteristics, such as ethnicity, race, and sexual orientation. The desire of individuals who have an intention to identify themselves with their own group "supports the development of preferential and prejudiced behaviors and attitudes that favor in-group members and discriminate against out-group members" (Schumann, Craig, & Rosu, 2013, p. 960). Members of the majority group can discriminate against individuals of minority groups as out-group members to demonstrate power prevalence. Association in the majority group provides an in-group member advantage by putting them at less risk of discrimination (Schumann et al., 2013). Christensen and Kerper (2013) state people with higher levels of social identification usually demonstrate greater loyalty to this group and are "less able to recall instances of in-group violence" (p. 549). Racial/ethnic harassment and discrimination are often based on intergroup prejudice and racism, when "people tend to show favoritism toward their in-groups and to derogate, dislike, and exclude members of other groups, especially when those out-group members are ethnic minorities" (Bergman, Palmieri, Drasgow, & Ormerod, 2012, p. 65). Race/ethnicity-based prejudiced behaviors have been recognized as factors causing workplace harassment and discrimination. They result in negative consequences for job-related well-being, such as job attitudes and turnover intentions (Bergman et al., 2012).

Racial/ethnic bullying in-group and out-group approach could be demonstrated in intergroup conflict and power imbalance. In addition, bully-related power imbalance along racial/ethnic line could exist on macro (e.g., school building with white students as majority) and micro level (e.g., Black entrance door) (Jimerson, Swearer, & Espelace,

2010). A particular group may be in a power position in one setting (e.g., white students in the school building, where white students are majority), and in a more vulnerable position in another (e.g., white students in the Latino lunch area) (Jimerson et al., 2010). In some cases, a reversed power phenomenon can occur where individuals associated with minority groups consolidate their power to bully others typically seen as a part of a majority group. For example, a male nurse can be bullied in a predominantly female nursing environment (Harris & Smith, 2014).

Ethnic/racial bullying in schools. Bullying is a serious problem within school systems (Gómez, Munte, & Sorde, 2014; Peskin, Tortolero, & Markham, 2006). The likelihood of being victimized at school is often stratified by race and ethnicity (Peguero & Williams, 2013). American children of diverse racial and ethnic backgrounds are increasingly exposed to racial/ethnic bullying (Patton, Hong, Williams, & Allen-Meares, 2013). Black/African Americans and Latino Americans are more likely to become victims at school than White Americans. Asian Americans are less likely to be victimized compared with the other minorities groups (Peskin, Tortolero, & Markham, 2006).

Racial/ethnic bullying could be associated with stereotypes on the one hand, and failure to fit the certain stereotype about race or ethnicity group on the other hand. Cultural stereotypes propose some standard to which the victim is compared. Failure to fit the standard results in breaking a stereotype, which can cause bullying as a penalty by bullies (Williams & Peguero, 2013). Racial and ethnic minority students experience verbal harassment, derogatory treatment, and social isolation when they do not meet standards for racial and ethnic stereotypes (Peguero & Williams, 2013). For example, stereotypes about Black students suggest that they have poor academic performance.

Black students who do not conform to stereotypes by having high test scores are more likely to experience bullying at school. These high achieving Black students are more vulnerable to bullying when compared to their white counterparts. Williams and Peguero conducted research among 9,590 students in 580 schools, including ethnic/racial groups representing Asian, Black, Latino, and White students. Their findings indicated high-achieving Black students were more susceptible to bullying when compared to high-achieving white students.

In addressing negative acts, bullies focus on attacking stereotypes describing their victims' groups. For example, when Black students do well in school, bullies accuse them of acting "White" or like "girls," because bullies are aware that masculinity and homophobia are important for African American students (Gómez et al., 2014). Race-based violence in schools can range from name-calling to serious physical attacks. The most common types of bullying against Black and Hispanic youth are teasing, name calling and upsetting for fun; students also reported being picked on, hit and pushed (Peskin et al., 2006). Racial/ethnic bullying in school could result in decreased productivity of the victim; students are more likely to have lower grades due to the decreased effort towards school work; and they might fail to meet school requirements or dropout before graduation (Williams & Peguero, 2013).

Ethnic/racial bullying in the workplace. Ethnic inequality leans towards occurrence of the ethnic/racial bulling in the workplace. Scholars identified various forms of racial/ethnic bullying in the workplace related to racism, including neglect, incivility, humor, ostracism, and inequitable treatment (Fox & Stallworth, 2005). Other forms of racial/ethnic bullying include derogatory comments or jokes about racial or ethnic

groups, use of racial or ethnic slurs to describe representative of minority groups, and exclusion of employees from social interactions during or after work because of race or ethnicity. In addition, ethnic/racial bullying behaviors could be demonstrated in the failure to provide employees information needed to fulfill their job because of the employees' race or ethnicity, making racist comments of not being very smart or unable to do a particular job because of their ethnicity, and making employees feel they have to give up their racial or ethnic identity to get along at work (Fox & Stallworth, 2005). Fox and Stallworth (2005) conducted a study with the aim to identify level of bullying among four main ethnic/racial groups: Whites, African Americans, Asians, and Latinos. The findings indicated that almost all the employees reported being victims of general bullying in the workplace (Fox & Stallworth, 2005). However, Hispanics/Latinos experienced higher level of general bullying than Whites. All three racial/ethnic minority groups reported higher levels of race-related bullying at work than general bullying: 50% of African Americans, 57% of Asians, and 37% of Latinos (Fox & Stallworth, 2005). Moceri (2014) conducted research among Hispanic nurses and found 73.6% of participants experienced bias in the workplace putting them at higher risks of bullying victimization. Those bias against race, ethnicity, age, and other personal characteristic had a negative effect on Hispanic nurses' decisions about whether or not to remain in a job and for how long.

Ethnic/racial bulling in the workplace could be observed as a top-down and bottom-up communication process. Misawa (2015) discussed experiences of 19 gay African American male faculty members, and found that these professors experienced bullying from their supervisors (i.e., positional bullying) and students (i.e., counter-

positional bullying). As a result of a positional bullying, an African American gay male faculty member assumed that was the reason he was denied tenure. As a part of counter-positional bullying, students questioned a Black associate professor whether he was knowledgeable about the content he was teaching, and the professor received those comments from students repeatedly during his career. The participants assumed that negative behavior was based on ideas regarding stereotypes about race and/or sexual orientation (Misawa, 2015).

Bullying and LGBT Group

> When Seth Walsh "came out" as gay in sixth grade, his life changed dramatically. His classmates became openly hostile and bullied him relentlessly. They routinely called him derogatory names, such as "faggot," "pussy," "pansy," and "sissy," and sometimes told him to "burn in hell" or "kill himself." Walsh's peers pushed him into lockers, obstructed his path as he tried to walk by, hit food out of his hands, and threw food, water bottles, pencils, and erasers at him. . . Some of the most hostile incidents occurred in the boys' locker room, where classmates pulled down his pants and a male peer threatened to rape him. Walsh and his mother repeatedly reported the bullying to school officials, but to no avail. Walsh's peers were permitted to bully him with impunity. . . Shortly after being "threatened, taunted, followed, and physically assaulted" at a local park by four students, Walsh committed suicide. He was thirteen. (Kimmel, 2016, p. 2009)

According to the 2013 National School Climate Survey, 55.5% of LGBT students felt unsafe at school because of their sexual orientation, and 37.8% because of their gender expression (Kosciw, Greytak, Palmer, & Boesen, 2014). More than half of the

participants in this survey experienced negative remarks related to their sexual orientation. Thus, more than 70% of LGBT students were often addressed as “gay” in a negative way (e.g., “that’s so gay”) at school, and almost all the victims (90.8%) felt distressed because of these comments (Kosciw et al., 204). Bullying language also included homophobic remarks like “dyke” or “faggot”; negative remarks about gender expression (e.g., not acting “masculine enough” or “feminine enough”); and negative remarks towards transgender people (e.g., “tranny” or “he/she.”) Interestingly, almost half of the participants (55.5%) reported hearing negative comments about gender expression from teachers or other school staff (i.e., top-down bullying). The same survey documented that LGBT students were harassed because of their sexual orientation verbally (74.1%; e.g., called names or threatened) and physically (36.2%; e.g., pushed or shoved). Others were physically assaulted (16.5%; e.g., punched, kicked, injured with a weapon) and cyberbullied (49.0%; e.g., via text messages or postings on Facebook). Surprisingly, more than half of the participants (61.6%) who reported this misconduct claimed that no action was taken by the school staff. This silent behavior of the authorized personal probably resulted in the fact that “56.7% of LGBT students who were harassed or assaulted in school did not report the incident to school staff, most commonly because they doubted that effective intervention would occur or the situation could become worse if reported” (Kosciw et al., 2014, p. xvii).

Duong and Bradshaw (2014) conducted research among 951 young adults, who identified themselves as lesbian, gay, and bisexual (LGB) in 2009. The participants were students from 105 NYC public schools enrolled in grades 9 through 12. Approximately 10% of these students were the victims of cyberbullying, 8% were victims of school

bullying, and 10% were victims of both school and cyberbullying. The researchers found that experiencing various forms of bullying cause aggressive behaviors and suicidal intention among LGB students. However, certain social factors, such as connectedness at school (e.g., an opportunity to talk to a peer or a teacher about problems) might reduce the negative consequences of stressful experiences like bullying (Duong & Bradshaw, 2014). Erhard and Ben-Ami (2016) conducted a qualitative study with 20 LGB-identified secondary school students in Israel with the purpose to identify effective coping tools against school bullying. The semi-structured interviews revealed a stressful experience of the participants as victims of bullying. One of the male participants identified himself as a "closeted gay," who was hiding his sexual orientation because of the fear to be bullied, "I don't live my real life as a gay within school or in the north. . . . You must wonder why, because it is just different. For example, I remembered an eighth grade peer who was effeminate and was daily teased and humiliated by other guys, and no one wanted to be his friend" (Erhard & Ben-Ami, 2016, p. 205). A female participant confirmed those fears by sharing her terrifying experience as a lesbian:

> I have been suffering from lesbophobia at school for the last 3 years. I don't know how, but someone figured out that I was lesbian and revealed it in front of my classes. It was crazy! Like, suddenly, the girls totally ignored me, most of my best friends ran away, and the boys were teasing me, using offensive remarks such as dyke. I could not stand their daily negative overreactions for too long. So I skipped school for a while, stopped eating, slept the whole day and started drinking alcohol. (Erhard & Ben-Ami, 2016, p. 206)

Another male participant remembered that during a school trip his male peers were shouting at him and did not want him to take a shower in a shower room just because he was gay (Erhard & Ben-Ami, 2016). One female participant experienced rumors and negative remarks about her sexual orientation from her school peers for a long time after she wrote in her Internet blog about her bisexuality. The researchers found several factors and mechanisms that helped the participants to resist and/or cope with the negative consequences of bullying (e.g., social support groups, assertive communication, tactical ignoring) (Erhard & Ben-Ami, 2016).

In another study, D'Augelli (2006) examined experiences of 542 youths (62% male and 38% female participants) who self-identified as LGB where the average age was 19. The study revealed the following lifetime victimization experiences of the participants related to their sexual orientation: Most of the participants (81%) had been verbally abused; "38% had been threatened with physical attacks, 22% had objects thrown at them, 15% had been physically assaulted, 6% had been assaulted with a weapon, and 16% had been sexually assaulted" (D'Augelli, 2006, p. 45). The researcher also reported that past victimization was closely associated with current mental health issues, including ideation to commit suicide.

Bullying and People with Disabilities

Increasing evidence suggests that another minority group – people with disabilities – is at a high risk of being bullied. Blake et al. (2012) reported data of bullying victimization among students with disabilities: 24.5% in elementary school and 34.1% in middle school. Rose, Stormont, Simpson, Preast, and Green (2015) collected data of 14,508 students, including participants with and without disabilities, in grades 6

to12 from 25 schools in the southwestern United States. The participants with disabilities included students with learning disabilities, health impairments, intellectual disabilities, emotional or behavioral disorders, autism spectrum disorders, sensory and language related disorders, and other types of disabilities. The findings revealed that students with specific disabilities were at higher risk of being bullied than their peers without disabilities.

In another study, Weiner, Day, and Galvan (2013) examined the experiences of 812 deaf and hard of hearing students in 11 U.S. schools from 2007 to 2009. The researchers found deaf and hard of hearing students became victims of bullying at rates two to three times higher than hearing students. In addition, the results indicated that school personal took less preventive measures in cases of bullying of students with disabilities compared with similar cases experienced by hearing victims. These findings indicated that people with disabilities are not only at higher risk of victimization by bullies, but they are also less likely to be protected by the school authorities. In addition, like others being victimized, people with disabilities often experience depression and social anxiety (Espelage et al., 2015).

Bullying and Victim's Health

Impact of bullying on psychological and mental health. Many researchers agree that bullying can lead to significant psychological, physical, and emotional consequences in victims (Hase, Goldberg, Smith, Stuck, & Campain, 2015; Liu & Graves, 2011; Owusu et al., 2011; Rodwell & Demir, 2012; Trépanier et al., 2013; Zou, Andersen, & Blosnich, 2013). Several studies address the negative impact of bullying on psychological health of the victims in many countries. Owusu et al. (2011) examined the

impact of bullying on physiological health of senior high school students in Ghana, West Africa. The scholars analyzed data from the 2008 Ghana Global School-based Student Health Survey. The study revealed that about 40% of the total 7137 participants were victimized by bullying and were more likely to experience psychological health issues compared with those who has not been bullied. The reported health issues included signs of depression, suicide ideation, and-sleep disorder. Menesini, Modena, and Tani (2009) conducted research among 1,278 students enrolled in 13 secondary schools in Italy. Almost half of the participants reported to be involved in the bullying process, including 140 victims and 81 bully/victims. The results of this study indicated that victims and bully/victims experienced higher degrees of anxiety, depression, and withdrawal in comparison with the other groups. In the United States, Greenleaf, Petrie, and Martin (2014) examined the impact of weight-based teasing on adolescents' psychological well-being among middle school students from the six middle schools in a central southern state. Out of 1419 participants, approximately 17% reported being teased because of overweight. The findings demonstrated that victims experienced higher levels of depression and lower degrees of self-esteem, physical self-concept, and physical activity self-efficacy.

Bullying has a negative impact on psychological health among adults as well, and can cause depression and symptoms of anxiety. Trépanier et al. (2013) conducted research investigating how exposure to workplace bullying undermines psychological health among 1,179 nurses, and found that being a victim of bullying had a negative impact on psychological health (e.g., higher burnout and lower work engagement). Dehue, Bolman, Völlink, and Pouwelse (2012) examined the mental and physical health

consequences of bullying in the workplace among 361 employees, and confirmed victimization was negatively associated with participants' well-being and health, especially depressive symptoms. Similarly, Ekici and Beder (2014) examined workplace bullying and its effects on performance and depression status at a university hospital in Turkey. The researchers found that psychological violence at work was associated with depression status of physicians and nurses. In Norway, Einarsen and Nielsen (2015) analyzed the impact of bullying on a sample of 1,613 employees with a five-year time lag. The findings indicated that bullying can cause long-term symptoms of anxiety and depression.

Impact of bullying on physical health. Although several studies revealed that bullying has a negative impact on mental and psychological well-being of victims, some evidence indicated that bullying negatively correlates with physical health as well. This can be explained by the fact that stressful life experiences have a negative impact on psychological functioning resulting in a wide range of physical diseases and symptoms (Schat, Kelloway, & Desmarais, 2005). One reason is that stressful situations negatively influence psychological well-being of the victims and weaken their immune system, causing an increase of susceptibility to various diseases (Schat et al., 2005). For example, work-related stress is associated with increased risk of infectious disease, asthma, ulcers, and strokes as a result of the suppressed immune functioning (Schat et al., 2005).

Studies providing evidence about association of bullying with negative physical health outcomes mostly concentrate on the victims at school and in the workplace. Baldry (2004) conducted research among 661 adolescents from ten different middle schools in Rome. Findings indicated that bullying was associated with mental and physical health of

middle school Italian students and had a long-lasting negative effects. Dehue et al. (2012) examined influence of bullying on the mental and physical health among 361 employees in the workplace in the Netherlands. The researchers found that victims of frequent bullying reported more health issues (e.g., depressive symptoms, headaches, palpitations, and back pain), than non- or rarely victimized employees.

Little attention has been paid to the impact of bullying as one of the main reasons of stress on the physical health of victims among undergraduate students. Among rare examples, a study by Politis and colleagues (2014) provided a sample of 2,427 adolescents aged 16 to 18 years old in Greece to investigate the association between bullying and subjective health complaints. Researchers found that victims of bullying were more likely to report backache, dizziness, and fatigue. In the United States, Woodford, Kulick, and Atteberry (2015) conducted research among undergraduates and graduate students in a Midwest university. The results revealed that interpersonal heterosexist discrimination can cause negative health outcomes among sexual minority students that are associated with symptoms of depression and anxiety, and negative outcomes for physical health, such as headaches and sleeping problems (Woodford et al., 2015).

Conceptual and Methodological Issues

Many scholars agreed that bullying communication and behaviors can lead to significant psychological, physical, and emotional consequences for victims (Liu & Graves, 2011). However, there are several challenges regarding the accurate measurement of bullying and health conditions of victims, including issues with definitions of the concepts, variety of assessment instruments, and design of research

(Furlong, Sharkey, Felix, Tanigawa, & Green, 2010; Swearer, Espelage, Vaillancourt, & Hymel, 2010). One of the important factors contributing to the problem with assessment of bullying is defining the bullying concept. Four decades of research on bullying has resulted in numerous definitions (Hymel & Swearer, 2015; Liu & Graves, 2011; see discussion of definitions in Chapter II), which have led to conceptual and methodological issues (Furlong et al., 2010; Hymel & Swearer, 2015). Researchers experienced difficulties in defining and operationalizing bullying in order to accurately estimate the degree of bullying, which resulted in reporting considerable differences in prevalence rates across studies (Furlong et al., 2010; Hymel & Swearer, 2015). An accurate definition of bullying is one of the main elements for assessing a construct (Swearer et al., 2010), therefore, provisions of a standardized definition is essential: "Students who were provided with a definition reported being bullied less and bullying others more than students who were not given a definition" (Swearer et al., 2010, p. 41).

Many scholars agreed that bullying describes intentionally harmful and aggressively repetitive behavior demonstrating a power imbalance between the bully and victim. However, there is no consensus on a theoretical framework for this concept, or utilizable definition of bullying in research (Liu & Graves, 2011). The bullying definition is complex often being characterized by three factors: (a) intention to cause harm, (b) imbalance of power, and (c) the repetition of bullying behavior (Liu & Graves, 2011; for more details see discussion in Chapter I and II). Any variation in these three criteria can lead to different interpretations of bullying (Liu & Graves, 2011), causing additional problems. It is not always easy to distinguish bulling from other victimization or non-victimization experiences (e.g., playful behavior). Consequently, friends can be engaged

in teasing that may look like bullying to outsiders (Furlong et al., 2010). Moreover, asking participants to label themselves as a victim or bully may provoke emotional reactions influencing their decisions not to use these labels, resulting in inaccurate estimates. In addition to issues defining the concept of bullying, there are limited criteria that provides a clear categorization of bullying (Vie, Glasø, & Einarsen, 2011). Although researchers recognize three forms of traditional bullying (physical, verbal, and social), and cyberbullying, some scholars propose extending types of this phenomenon, such as extortion (e.g., asking for money) (Smokowski, Evans, & Cotter, 2014).

Another methodological concern are the many instruments available to measure bullying (Hamburger et al., 2011) and health conditions. A compendium of assessment tool by Hamburger et al., (2011) includes four bully-only scales, eight victim-only scales, thirteen bully and victim scales, and eight bystander, bully, and/or victim scales. Unfortunately, many of these measurements do not report adequate reliability and validity (Furlong et al., 2010). Health issues, as a result of bullying victimization, are assessed by various instruments in different studies, including scales, check lists, questionnaires, and interviews. These instruments measure different health conditions, such as addiction behavior (e.g., alcohol, tobacco, and illegal drugs), psychological symptoms (e.g., fatigue, concentration or memory problems, irritability, depressive mood, worry about physical health, and free-floating anxiety), somatic symptoms (e.g., backache, headache, abdominal pain, dizziness, and sleep problems), and mental and emotional health (Houbre et al., 2006; Shetgiri, Lin, & Flores, 2015; Vie et al., 2011). Variations regarding instruments assessing bullying and health conditions does not allow providing accurate comparison among the studies focusing on the impact of bullying and

victims' health issues. Another issue with measurements are variations in the time frame used in many studies. For example, some scales measure victimization during one year, while other scales measure victimization during a week or month (Hamburger et al., 2011).

Researchers also use different approaches to assess bullying, including direct observations, peer nominations and ratings, teacher and parent reports, and self-reports, which vary across and within methods resulting in different findings (Swearer et al., 2010). Many researchers who conducted studies about the influence of bullying on a target's health acknowledge other limitations of studies, including use of self-report instruments (Trépanier et al., 2013; Vie et al., 2011; Yu-Ying & Jiun-Hau, 2015); cross-sectional design of studies (Chang et al., 2013; Politis, Bellou, Belbasis, & Skapinakis, 2014; Trépanier et al., 2013; Vie et al., 2011; Yu-Ying & Jiun-Hau, 2015); and measures of particular types of bullying that vary from study to study (Chang et al., 2013). Self-report assessments are the most commonly used method to measure bullying victimization. This method is an easy tool to estimate bullying prevalence compared to other methods, such as observations of the participants (Hymel & Swearer, 2015). However, self-reports are based on the victims' perspective and may not provide valid information (Furlong et al., 2010). Another problem with self-report measures is that careless and disingenuous participants, as well as response referent time frame, can influence inaccurate prevalence estimates (Furlong et al., 2010).

In addition to issues defining the bullying concept, there is no consensus on the definition about psychological and/or physical health of a victim. Often when researchers address health issues they are typically examining psychological and mental problems

caused by bulling, and pay little attention to the influence of different types of bullying on the physical health of the victim/target. Despite the fact that verbal bullying is one of the most widely used forms of bullying, a communication lens is seldom used to analyze this phenomenon. Consequently, the aim of the present study was to examine the impact of traditional bullying forms (i.e., verbal, physical, and social) and types of cyberbullying (i.e., visual and text bullying) on the victim's health in academe settings. More specifically, the purpose of this research was to analyze the impact of verbal aggressiveness as a type of bullying on the victims' health (i.e., sleep disturbance, headaches, gastrointestinal problems, and respiratory infections).

Research Questions

The present literature review revealed that many studies indicated that bullying has a negative correlation with the physiological and mental health of the victims (Trépanier et al., 2013; Verkuil et al., 2015), and little research addressed the influence of bullying on physical health of the victims, specifically in an academic setting. In addition, when such studies were conducted, it was seldom clear what type of bullying had a negative impact on the victim's health. Finally, this serious and toxic issue was not widely addressed by communication scholars. Therefore, this research examined how different forms of bullying influenced the physical health of victims in academic settings from a communication lens. A communication perspective was utilized (i.e., verbal aggressiveness) to analyze relationships between different types of bullying (i.e., traditional and cyberbullying) on the victim's physical health (i.e., sleep disturbance, headaches, gastrointestinal problems, and respiratory infections) for students at the university.

Rather than advancing a scientific theory of bullying, this project should be reviewed as an initial exploration into an applied problem, namely the linkage between various types of bullying and victims' health outcomes. Except for physical, violent manifestation of bullying, types such as cyberbullying have relied on subjective reactions to socially inappropriate behavior. This study seeks to determine whether the non-physical forms of bullying have quantifiable physical effects on victims.

In sum, the present study focused on the impact of traditional bullying forms (i.e., verbal, physical, and social) and types of cyberbullying (i.e., visual and text bullying) on the victim's health in academe setting. In particular, the purpose of the study was to analyze the impact of verbal aggressiveness as a type of bullying on the victim's health. Based on the previous review of literature, the following research questions were proposed:

RQ1: What type of bullying occurs among undergraduates students?

RQ2: How does verbal aggressiveness relate to other types of bullying?

RQ3: Does bullying have a negative impact on physical health of the victims of bullying?

In the next chapter, methodology of this study will be discussed, including participants, procedures, measurements, and data analyses. Implementation of a confirmatory factor analysis (CFA) was presented to determine the measurement model for the current project.

CHAPTER III. METHODOLOGY

Overview of the Study

The purpose of this study was to measure the impact of traditional bullying, cyberbullying and verbal aggressiveness on a victim's health. Specific examination included various forms of traditional bullying (verbal, physical and social) and cyberbullying (visual and text bullying) to determine the influence of bullying on physical health of the victim. Based on these variables, the Model of Impact of Bullying on Victim's Physical Health was proposed.

Participants

The participants were 419 undergraduate students (female n = 285 or 68%) at a southeastern university in the United States. The students' age ranged from 17 to 29 (M =20.50, SD = 1.84). 51,8% of the participants were Caucasian and 23,4% were Hispanic, other participants identified themselves as Asian (9.3%), African American (8.4%), and other (7.2%). 29,1% of the participants were in their senior year; other participants declared themselves as 28,4% as junior, 22,4% as sophomore, and 18,1% as freshmen.

Procedures

Approval from the Institutional Review Board (IRB) was received prior to data collection. Participants were recruited following IRB guidelines for voluntary participation and anonymity. Extra credit was offered in some classes in exchange for participation. Participants responded to a questionnaire containing the demographic and self-report items during regular class time. Completion of the questionnaire by participants took approximately 10-15 minutes. The questionnaire contained four self-report instruments addressing the following areas: Traditional bullying victimization,

cyberbullying victimization, victimization by verbal aggressiveness, and physical health outcomes.

Measurement

The following instruments were utilized for this study: (1) Adolescent Peer Relations Instrument-Target measuring victimization by traditional bullying; (2) Revised Adolescent Peer Relations Instrument-Target measuring victimization by cyberbullying, (3) Verbal Aggressiveness Scale measuring victimization by verbal aggressiveness, and (4) Physical Health Questionnaire measuring physical health outcomes of bulling victims.

Adolescent Peer Relations Instrument-Target (APRI-T). Adolescent Peer Relations Instrument-Target (APRI-T) is a part of Adolescent Peer Relations Instrument Bully/Target developed by Parada (2000) and utilized by Hamburger et al. (2011). APRI-T consists of 18 items to measure victimization by traditional bullying (e.g., verbal, physical, and social; see Appendix A). Target factor items were preceded by the sentence "In the past year at this school ..." The second part of the sentence in the items reflects victimization by three types of bullying: Verbal, physical and social victimization. *Verbal victimization* is presented by six items: #1, #4, #7, #11, #13, and #18. Examples of items "I was teased by students saying things to me," and "A student made rude remarks at me." *Social victimization* is presented by six items, including items #3, #6, #9, #12, #14, and #17. Examples of items included: "A student wouldn't be friends with me because other people didn't like me" and "A student ignored me when they were with their friends." *Physical victimization* is presented by six items: #2, #5, #8, #10, #15, and #16. Examples of questions included: "I was pushed or shoved" and "I was hit or kicked hard." Students will be asked to indicate how often they experienced a series of bullying

behaviors on a 7-point bipolar scale anchored from "never" at one end and "every day" at the other. Scoring was achieved by adding the items up for each individual total score of victimization. Students who scored 18 for victimization (or below) did not indicate experiencing being bullied. Subscale scores were computed as follows: Verbal victimization was computed by total of items #1, #4, #7, #11, #13, and #18; social victimization by total of items #3, #6, # 9, #12, #14, and #17; physical victimization by total of items #2, #5, #8, #10, #15, and #16. For the subscales, a score of 6 means the respondent has never been bullied in that particular way. The scale was tested by Parada (2000) with reliabilities for the total victimization instrument .95; and subscale scores (verbal, physical, and social victimization) ranging from .83 to 92 (as cited in Hamburger et al., 2011). The reliability subscale scores in this study were as follows: verbal victimization was .86, social victimization was .82, physical victimization was .81.

Revised Adolescent Peer Relations Instrument–Target (RAPRI-T). Revised Adolescent Peer Relations Instrument–Target (RAPRI-T) is a part of the Revised Adolescent Peer Relations Instrument-Bully/Target developed by Griezel, Craven, Yeung, and Finger, (2009); scale items were available in an article by Griezel, Finger, Bodkin-Andrews, Craven, and Yeung, 2012, used to measure victimization by cyberbullying (see Appendix B). RAPRI-T consists of 13 items representing two types of cyberbullying – *visual* and *text cyberbullying*. Target factor items were preceded by the sentence "In the past year at this school ..." Examples of victimization by visual cyberbullying include: "A rude picture message was sent to my phone," and "My mobile phone account was used without my permission to send a picture message to other people to get me in trouble." Examples of cyberbullying victimization by text include: "A

student sent me a nasty e-mail," and "A student sent me an email threatening to harm me." Students were asked to indicate how often they experienced a series of cyberbullying victimization on a 7-point bipolar scale anchored from "never" at one end and "every day" at the other. Students who scored 13 for cyberbullying victimization (or below) did not indicate experiencing being bullied. Victimization by visual cyberbullying was computed with five items. For this subscale, a score of five (or below) means the respondent has never been bullied in that particular way. Victimization by text bullying was composed of eight items. For this subscale, a score of eight (or below) means the respondent has never been bullied in that particular way. The reliability of RAPRI-T total cyberbullying victimization scale was .87. Reliability of visual cyberbullying subscale was .80; and reliability for text victimization was .84 (Griezel et al., 2009). In this study, reliabilities of subscales were as follows: visual cyberbullying was .79, text cyberbullying was .81.

Verbal Aggressiveness Scale (VAS). Trait verbal aggressiveness is a dominant construct originating in the communication literature. It is unclear whether this construct is different from verbal bullying as described in the bullying literature. Therefore, the trait verbal aggressiveness' measure was included in this study to determine whether it contributes unique information for our understanding of bullying. The original 20–item Verbal Aggressiveness Scale (VAS) was developed by Infante and Wigley (1986; see Appendix C). In the present study, four items were used based on the recent confirmatory factor analysis (CFA) by Beatty, Pascual-Ferra, and Levine (2015). These items included: (1) "When individuals are very stubborn, I use insults to soften their stubbornness;" (2) "If individuals I am trying to influence really deserve it, I attack their character;" (3)

"When people do things that are mean or cruel, I attack their character in order to help correct their behavior;" and (4) "When nothing seems to work in trying to influence others, I yell and scream in order to get some movement from them." Reliability for the four items was .62; "However, these four items were free of latent factor influence, method error or otherwise, as indicated by the absence of significant correlations among error terms" (Beatty, Pascual-Ferra, & Levine, 2015, p.76). According to Beatty and colleagues, "researchers should remain cognizant of the fact that the alpha coefficient (Cronbach, 1951) misestimates internal consistency of measures with nonzero error co-variances among items" (p. 75). In order to use items of VAS to measure victims' well-being, it was important to examine whether the target was victimized by verbal aggression. Therefore, some modification of the VAS items wording was necessary in order to determine the victims' well-being. A lead-in sentence was included, "While interacting with me, a peer-student...," followed by each of the three scale items: "used insults," "yelled and screamed at me," and "attacked my character." Students were asked to indicate how often they experienced a series of verbal aggressiveness on a 7-point bipolar scale anchored from "never" at one end and "every day" at the other. In this study, reliability of verbal aggressiveness scale was .84.

Physical Health Questionnaire (PHQ). In order to assess student's physical health, the Spence, Helmreich, and Fred's (1987) scale revised by Schat, Kelloway, and Desmarais (2005), Physical Health Questionnaire (PHQ), was used in this study (see Appendix D). The modified PHQ consists of 14 items and four subscales measuring: (1) *sleep disturbance*, (2) *headaches*, (3) *gastrointestinal problems*, and (4) *respiratory infections*. Examples of sleep disturbance subscale items are "How often have you had

difficulty getting to sleep at night?" and "How often have you had nightmares or disturbing dreams?" Examples of items on headaches subscale included: "How often have you experienced headaches?" and "How often did you get a headache when there was a lot of pressure on you to get things done?" Examples of gastrointestinal problems subscale items were "How often have you suffered from an upset stomach?" and "How often did you have to watch that you ate carefully to avoid stomach upsets?" Example of respiratory infections subscale items included: "How many times have you had respiratory infections more severe than minor colds that "laid you low (e.g., bronchitis, sinusitis, etc.)" and "When you had a bad cold or flu, how long did it typically last?" Reliabilities of the PHQ subscale items were above .70 (Schat et al., 2005). In the present study, students were asked to indicate how often they experienced health issues on a 7-point bipolar scale anchored from "never" at one end and "every day" at the other. The reliability subscale scores in this study were as follows: sleep disturbance was .67, headaches was .88, gastrointestinal problems was .85, respiratory infections was .70.

Measurement Model

The data analyses were conducted in a two-step sequence using Mplus Version 6.12. A confirmatory factor analysis (CFA) was conducted on the data to examine factor structure of the 18-item Adolescent Peer Relations Instrument-Target, 13-item Revised Adolescent Peer Relations Instrument-Target, four items of VAS scale, and 14-item Physical Health Questionnaire (Preliminary Measurement Model; see Appendix E). The preliminary measurement model specified the items from each measure as indicators of a latent factor supposedly assessed by each measure. The initial results, however, showed poor fit for the overall model.

Confirmatory Factor Analysis (CFA) was conducted in a three-step sequence, using Mplus Version 6.12 (modified indices 4). First, the CFA was run on all forty eight items to identify the model fit. The results indicated a poor fit to the data in terms of overall $\chi 2(1035, N=410) = 3254.925$, $p<.001$, RMSEA=0.000 (90% CI [0.070, 0.075]), SRMR=0.083, CFI=0.650, TLI=0.618. A model could be considered acceptable if the Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) are close to .95, root mean square error of approximation (RMSEA) is close to .06, and the standard root mean square residual (SRMR) is close to .08 (Hu & Bentler, 1999). The results also indicated a poor fit in terms of standardized factor loadings for the items (over half were below .50 and .40). According to Brown (2006), standardized factor loadings lower than .40, therefore, indicate that considerable item variance is error. For that reason, it is not uncommon to set the threshold values for minimally acceptable factor loadings in the .50 or even the .60 region for construct validation studies of composite measures.

Following Brown's recommendation, the modification indices were inspected for possible reasons for poor model fit. Specifically, possible covariance at the $p<.01$ ($MI \geq 6.30$) were examined. Modification indices equal to or greater than 6.30 indicate that the assumption of independent item errors is false. In such cases, this means the model is misspecified, and offending items should be deleted. In other words, correlated item errors indicate that a variable or variables that researchers do not intend to measure influence participants' responses to these items. As such, items scores lack validity. Although covariation criteria applied to analysis of a single index for two error term is 4.00, the criteria were adjusted to the total number of indices analyzed, given the size of the matrix. The remaining 24 items were re-analyzed. However, each Physical and Text

factors had only one item remaining, and the model could not be computed. After two more items were eliminated, the new model is acceptable with indices: $\chi 2$ (181, N=410) =256.20, p<.001, RMSEA=0.022 (90% CI [0.022, 0.040]), SRMR=0.042, CFI=0.961, TLI=0.950. In short, several items were bad items and deleting them resulted in a revised model with excellent fit (Revised Measurement Model; see Appendix F). The final model consisted of the following 22 items from the four initial scales: (1) Adolescent Peer Relations Instrument-Target, (2) Revised Adolescent Peer Relations Instrument-Target, (3) Verbal Aggressiveness Scale, and (4) Physical Health Questionnaire:

Adolescent Peer Relations Instrument-Target

Verbal victimization

Item 4. A student made rude remarks at me.

Item 7. Jokes were made up about me.

Item 11. Things were said about my looks I didn't like.

Social victimization

Item 3. A student wouldn't be friends with me because other people didn't like me.

Item 6. A student ignored me when they were with their friends.

Item 12. I wasn't invited to a student's place because other people didn't like me.

Item 17. I was left out of activities, games on purpose.

Revised Adolescent Peer Relations Instrument-Target

Visual victimization

Item 19. A rude picture message was sent to my mobile phone.

Item 20. My mobile phone account was used without my permission to send a picture message to other people to get me in trouble.

Verbal Aggressiveness Scale

Verbal aggressiveness

Item 32. While interacting with me, a peer-student used insults.

Item 33. While interacting with me, my peer- student yelled and screamed at me.

Item 34. While interacting with me, my peer- student attacks my character.

Physical Health Questionnaire

Sleep disturbance

Item 35.How often have you had difficulty getting to sleep at night?

Item 36.How often have you woken up during the night?

Item 37. How often have you had nightmares or disturbing dreams?

Item 38. How often has your sleep been peaceful and undisturbed?

Headaches

Item 40. How often did you get a headache when there was a lot of pressure on you to get things done?

Item 41. How often did you get a headache when you were frustrated because things were not going the way they should have or when you were annoyed at someone?

Gastrointestinal problems

Item 42. How often have you suffered from an upset stomach (indigestion)?

Item 45. How often were you constipated or did you suffer from diarrhea?

Respiratory infections

Item 47. How many times have you had respiratory infections more severe than minor colds that "laid you low" (such as bronchitis, sinusitis, etc.)?

Item 48. When you had a bad cold or flu, how long did it typically last?

In the final model, reliability of the total Adolescent Peer Relations Instrument-Target Scale was .85; including subscale scores for verbal victimization .78 and social victimization .75. Revised Adolescent Peer Relations Instrument-Target includes visual victimization scale with a reliability of .46. Reliability of Verbal Aggressiveness Scale was .84. Physical Health Questionnaire Scale demonstrated reliability for the total instrument .78, and the following reliability scores for the subscales: sleep disturbance was .68, headaches was .87, gastrointestinal problems was .71, and respiratory infections was .55. When interpreting the reliabilities, the reader should note that Cronbach's alpha coefficient underestimates the reliability of a scale when the items with correlated errors are removed (in the current study items with large modification index values were removed). Therefore, the internal consistency of the measures is better than Cronbach's alpha indicates (see Raykov, 2001).

The next chapter details the results addressing the three research questions generated in this study. Tables illustrating victimization by various types of bullying (i.e., verbal, physical, social, visual, text, and verbal aggressiveness) were presented. A second-order confirmatory factor analysis was discussed to explain the issue of multicollinearity.

CHAPTER IV. RESULTS

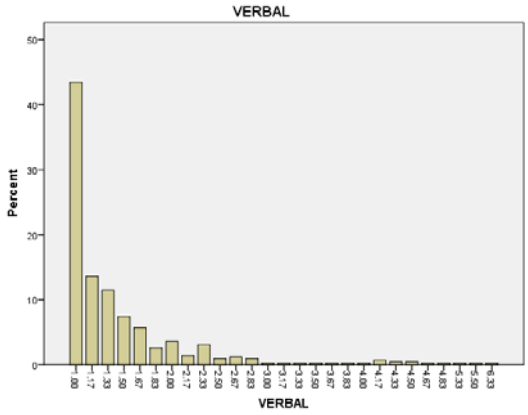
This research examined the effect of traditional bullying, cyberbullying, and verbal aggressiveness on the physical health of university students. A quantitative approach utilized a questionnaire designed for this project. Chapter IV discusses the findings by addressing the research questions generated in the current study.

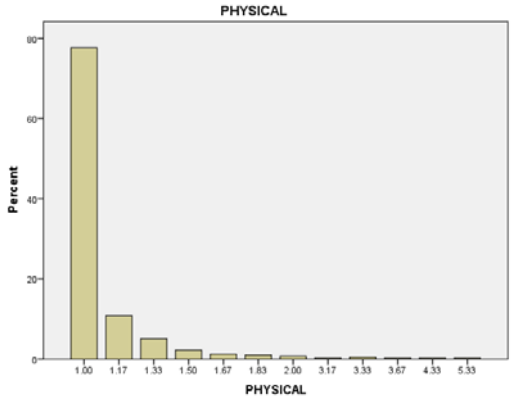
RQ1: What type of bullying occurs among undergraduates students?

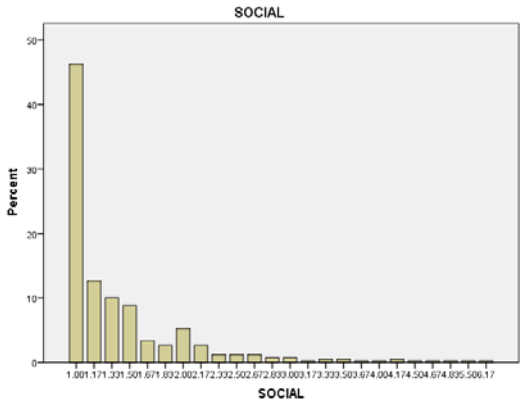
Descriptive statistics demonstrate all types of examined bullying existing among the participants (see Table 4.1). To the question "Please indicate how often a student (students) at this school has done the following things [types of bullying] to you since you have been at this school this year," the answers were measured on the scale from 1 ("Never") to 7 ("Every day"). The maximum scores (Max) indicate that at least some students experience all types of bullying, with some reporting verbal victimization, physical victimization, social victimization, cyberbullying (text and visual) victimization, and verbal aggressiveness almost every day. Verbal victimization (*Max* = 6.33, *M*=1.45, *SD* = .77), physical victimization (*Max* = 5.33, *M*=1.11, *SD* =.38), social victimization (*Max*=6.17, *M*=1.41, *SD* = .69), visual victimization (*Max* =4.8, *M*=1.08, *SD* =.35), text victimization (*Max* = 4.25, *M* =1.12, *SD* =.37), and verbal aggressiveness (*Max* = 6.00, *M* =1.27, *SD* =.70).

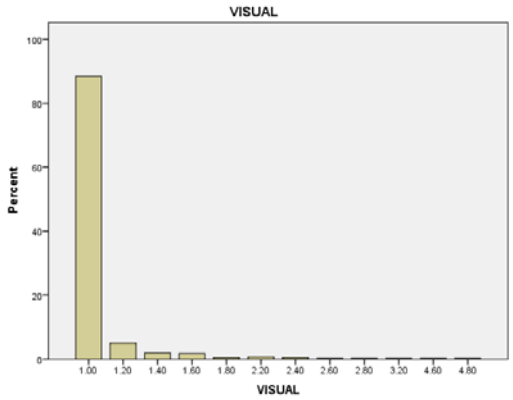
Table 4.1.

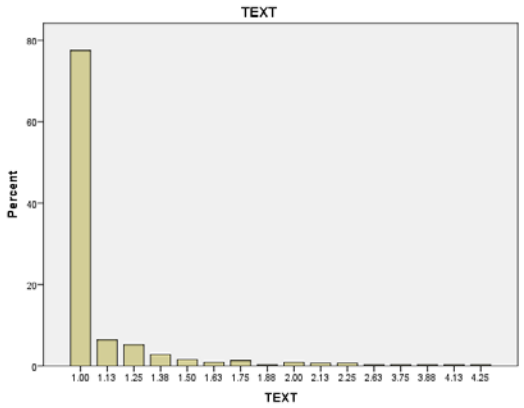
Types of Bullying

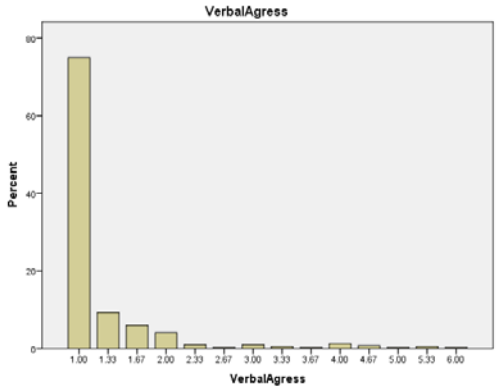












RQ2: How does verbal aggressiveness relate to other types of bullying?

Verbal aggressiveness relates to all the examined types of bullying. Correlation between verbal aggressiveness and other types of bullying demonstrates the following results: verbal aggressiveness and verbal victimization is statistically significant (r = .68, p<.001), verbal aggressiveness and physical victimization is statistically significant (r =.48, p<.001), verbal aggressiveness and social victimization is statistically significant (r =.59p<.001), verbal aggressiveness and visual victimization is statistically significant (r = .44, p<.001), verbal aggressiveness and text victimization is statistically significant (r = .73, p<.001).

RQ3: Does bullying have a negative impact on physical health of the victims of bullying?

In order to evaluate impact of bullying types as independent variables on the victims' health as dependent variables, linear regression analysis was run. According to the finalized model, the new independent variables were: (1) verbal victimization, (2) social victimization, (3) visual victimization, and (4) verbal aggressiveness. The new dependent variables are: (1) sleep disturbance, (2) headaches, (3) gastrointestinal problems, and (4) respiratory infections. Both independent and dependent variables were computed as new variables based on the remained items. First, the regression analysis was run to evaluate impact of independent variables on sleep disturbance. The regression model was statistically significant, F = 8.849, p < .001. The adjusted R square was 0.07, which indicates that approximately 7% of the variance in sleep disturbance can be explained by the regression model. However, none of the independent variables were significant predictors likely because of the extreme multicollinearity (which will be

discussed later). Relationship of sleep disturbance with independent variables was not statistically significant. Second, the regression analysis was run to evaluate impact of independent variables on headaches. The regression model was statistically significant, $F = 3.908$, $p < .05$. The adjusted R square was 0.03, which indicates that approximately 3% of the variance in headaches can be explained by the regression model. As in the previous model, individual predictors were not significant. Relationship of headaches with independent variables was not statistically significant. Next, the regression analysis was run to evaluate impact of independent variables on gastrointestinal problems. The regression model was statistically significant, $F = 4.268$, $p < .05$. The adjusted R square was 0.03, which indicates that approximately 3% of the variance in gastrointestinal problems can be explained by the regression model. Relationship of gastrointestinal problems with independent variables was not statistically significant. Finally, the regression analysis was run to evaluate impact of independent variables on respiratory infections. The regression model was statistically significant, $F = 4.803$, $p < .05$. The adjusted R square was .04, which indicates that approximately 4% of the variance in Respiratory Infections can be explained by the regression model. Results also demonstrated that verbal aggressiveness was the only predictor that significantly correlates with respiratory infections in the model ($p < .05$).

Regression models were statistically significant in all the cases. However, independent variables were not statistically significant in all the models, except the last model where verbal aggressiveness was the only predictor that significantly correlated with respiratory infections. Regression analyses were run with each independent variable separately, and all of them were significant predictors of the health problems if taken

separately. These results indicated that the variables are highly correlated, that is a problem of multicollinearity exists.

To probe the nature of multicollinearity, a second-order CFA was conducted using average scores on each measure as indicators. There are two possible reasons for the high levels of multicollinearity. One reason is that bullies employ all types of bullying once they target a potential victim. Thus, when victims are bullied, they are subjected to all types of bullying. A competing explanation is that some unmeasured variable, such as hypochondria, influences victims' perceptions of whether they are bullied and whether they are healthy. As such, participants' responses to questions regarding bullying and health might be distorted in the same direction. If this is the case, the errors for individual measures of bullying and health outcomes would be correlated significantly, indicating by the modification indices ≥4.00. Overall, the model showed acceptable fit: $\chi 2(28, N=417) =542.64$, $p<.001$, RMSEA=0.015 (90% CI [0.000, 0.046]), SRMR=0.039, CFI=0.997, TLI=0.995. Moreover, examination of the modification indices indicated no significant associations among measurement errors. Therefore, the multicolleniarity is most likely due to the bullies using all available means of coercion. CFA indicates that bullying has negative outcomes to the health of victims, and influences sleep disturbance, headaches, gastrointestinal problems, and respiratory infections.

In the next chapter, the results of the research questions were discussed. Implications of findings, limitations of the study, and recommendations for further research were also addressed. Overall misconceptions and conclusions regarding bullying were presented for this study.

CHAPTER V. DISCUSSION

Bulling is an intentional act of harm expressed in various ways and often repeated over a certain period of time. It occurs in various contexts, including K-12 schools, universities, and professional organizations. This is a serious problem that has attracted public attention for over a century because of its negative affect on people (e.g., victims, bystanders), as well as its impact on profit and non-profit organizations, and workplace environment (Craig & Pepler, 2007; Koo, 2007; Misawa, 2015; Roscigno et al., 2009). In organizations, bulling can occur on different hierarchical levels between employers/employees, supervisors/subordinates, administrators/teachers, and teachers/students. Bullying also takes place on the same horizontal level where the bully and victim could both be peers, students, teachers, co-workers, or managers. Victims of bullying were also represented by diverse social groups, including different genders, ethnic minorities, LGBT groups, and people with disabilities.

The previous literature identified various types of bullying, including traditional and cyberbullying. Traditional forms of bullying include physical, social and verbal. Due to rapidly developed technological progress, bullies were now targeting victims using various advanced devises, such as cell phones and social media (e.g., Facebook, Twitter). This new area of bullying was recognized in the literature as cyberbullying, and included text bullying (e.g., text messages, e-mails) and visual bullying (e.g., sending offensive videos or images). Previous researchers also identified the main players of the bullying process: Bullies or offenders who cause harm to their victims; victims of the bullying process, victim-bullies or those who can be bullies and victims at the same time; and bystanders or observers of the bulling process. Bullying continues to attract attention by

society and researchers since bullies demonstrate anti-social and inappropriate behaviors, and victims of bullying were exposed to experiencing physical ~~and~~ psychological harm. In schools and colleges, bullying runs the risk of causing poor academic performance among high school and college students. In the workplace, bulling results in job-dissatisfaction, unhealthy workplace environment, and high levels of employee turn-over. Aggression by victims as a result of being bullied could possibly lead to acts of public violence as a sign of self-protection and/or being "burned out." Multiple studies indicated that in many cases shooting in schools were caused by victims of bullying (e.g., Duplechain & Morris, 2014; Klein, 2006). As demonstrated by previous research, bullying creates a wide range of negative consequences. Subsequently, an increasing number of researchers have studied this destructive phenomenon in order to understand the mechanism of bullying and increase awareness of this issue to develop preventative strategies. While previous research indicates numerous negative effects of bullying, little attention has been given to the relationship of bullying and physical health of the victims. Since poor health of victims could result in poor performances at schools or in professional organizations, it is important to analyze this effect of bullying. Sick leaves by employees in organizations could cause a financial loss for companies, and have a negative impact on the organization's reputation. In addition, few studies on this topic addressed the communication aspect of bulling (i.e., verbal aggressiveness), which was often reported in the studies as inappropriate and offensive relationships in academia and in workplaces. Therefore, the purpose of this study was to evaluate how bullying and verbal aggressiveness related to the physical health of the victims.

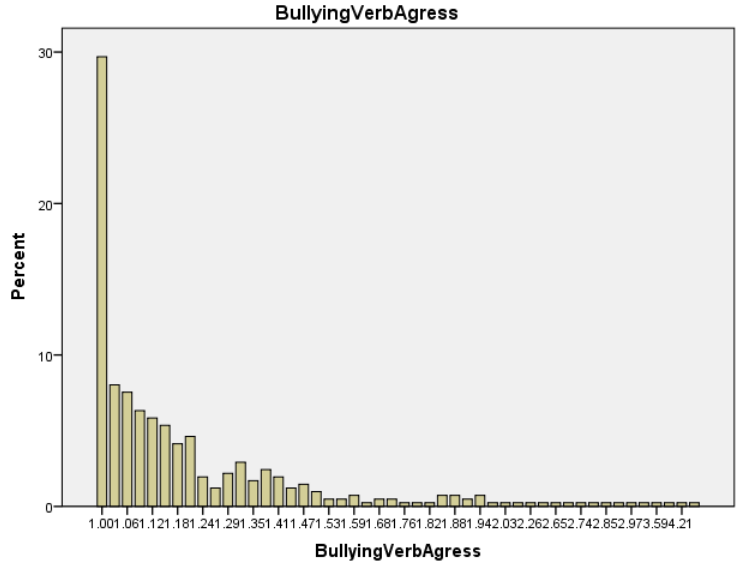
The present study examined what type of bullying occurred among undergraduate students, and its influence on physical health of the victims. Various types of bullying (traditional and cyberbullying) were found to exist among these participants, including verbal bullying, social bullying, physical bullying, visual bullying, and text bullying. In addition, this study evaluated whether verbal aggressiveness presented a separate type of bullying, and if it also had a negative impact on the victim's health. The results of this study addressing multiple research questions are discussed below.

Discussion of Results

Research question 1. Research question 1 examined what types of bullying the victims experienced in the university. According to the results, approximately 70% of the students experience various types of bullying at different levels (see Figure 5.1). The findings also indicated that victims experienced all types of traditional and cyberbullying, as well as verbal aggressiveness.

Figure 5.1

Bullying and Verbal Aggressiveness



The widely used types of bullying were verbal bullying (45%) and social bullying (43%). The other types of bullying included visual bullying (25%), text bullying (23%), and physical bullying (20%). In addition, approximately 23% of participants were victimized by verbal aggressiveness. One of the interesting findings was physical bullying, which was widely present in primary and secondary schools, was the least preferred strategy in the universities. Another finding indicated that traditional and cyberbullying were almost equally presented in the university setting: Approximately 65% of the victims experienced traditional bullying (see Figure 5.2) and approximately 65% of all victims reported cyberbullying (see Figure 5.3).

Figure 5.2

Traditional Bullying

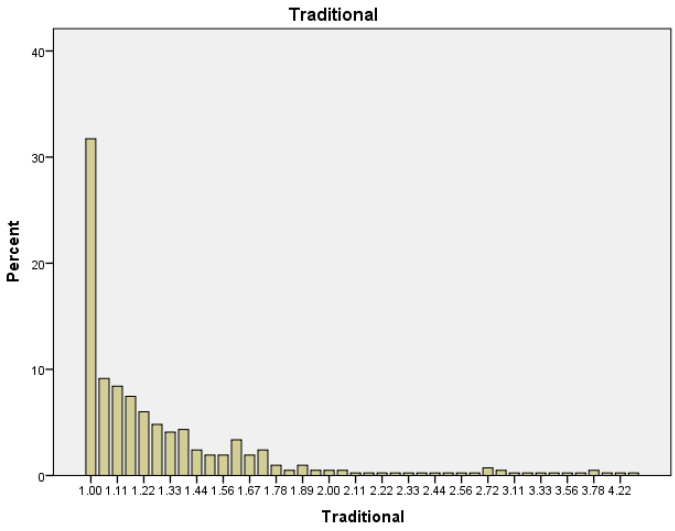
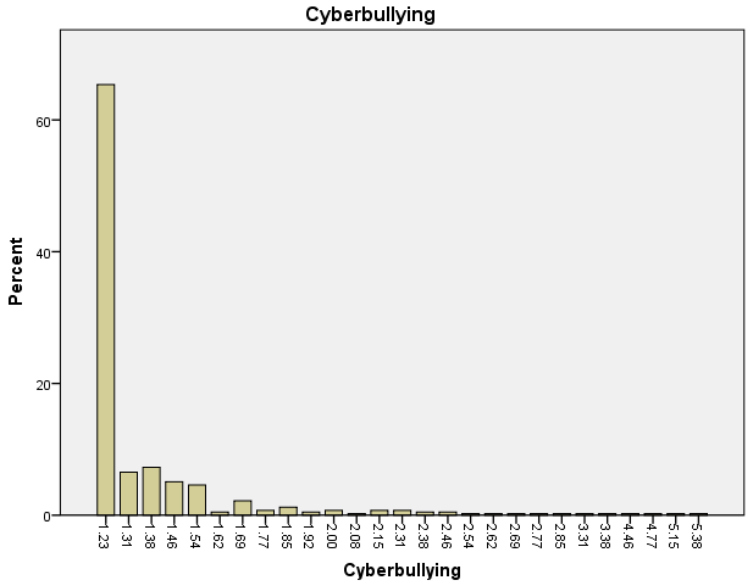


Figure 5.3

Cyberbullying



The findings were consistent with previous research, indicating that college students experience various types of bullying in academia (e.g., Doane, Kelley, & Pearson, 2016; Holt et al., 2014; Myers & Cowie, 2016). However, not many studies identified what type of victimization was experienced with the college students.

Research question 2. Research question 2 examined communication aspect of the bullying process. In particular, one purpose of the current study was to analyze whether verbal aggressiveness presented a separate type of bullying. The results indicated that verbal aggressiveness was highly correlated with other types of bullying. These findings were consistent with the few previous studies that examined the negative impact of verbal aggressiveness in various settings. Among them, the study of Lazarus et al. (2016) addressed the negative impact of verbal aggressiveness as a type of bullying in the work environment between physicians and trainees. Madlock and Kennedy-Lightsey (2010) found negative relationships between supervisors' verbal aggression and their

subordinates' communication satisfaction, organizational commitment, and job satisfaction. Recently, Savage and Tokunaga (2017) analyzed relationships between verbal aggressiveness and cyberbullying, and reported that verbal aggression was consistently positively associated with cyberbullying perpetration. Although previous researchers evaluated relationships between bullying and verbal aggressiveness, not many studies provided scientific support of verbal aggressiveness as a type of bullying. The present study fills this gap, indicating that verbal aggressiveness was a communication aspect of bullying, and could be considered as a separate type of bullying. Another important funding was that verbal aggressiveness as a type of bullying has a negative impact on the victims' physical health. Although previous researchers addressed the association between verbal aggressiveness and psychological health in personal relationships (e.g. Aloia & Solomon, 2015; Anderson, Lin, Raptis, & Clark, 2000), there was little attention paid to the relationships between verbal aggressiveness and physical health. The findings of the present study indicated that verbal aggressiveness had a negative impact on all of the health issues analyzed, including sleep disturbance, headaches, gastrointestinal problems, and respiratory infections.

Research question 3. Research question 3 examined whether bullying had a negative relationships with physical health of the victims of bullying. The results demonstrated that the following types of bullying have a negative impact on the victims' physical health: (1) verbal victimization, (2) social victimization, (3) visual victimization, and (4) verbal aggressiveness. They had a negative influence on all of the examined health aspects: (1) sleep disturbance, (2) headaches, (3) gastrointestinal problems, and (4) respiratory infections. The findings also indicated that physical bullying (as a form of

traditional bullying), and text bullying (as a form of cyberbullying), did not influence the examined health outcomes. One of the explanations could be that physical bullying was not widely used as a bullying strategy at the university. Lack of association between text bullying and physical health could be explained by the fact that text messages lacked an emotional aspect, and therefore bullying messages do not produce as strong an effect as verbal bullying, or other types of bullying.

Findings indicated that the impact of bullying on physical health were the main contributors to the overall research of this study. Previous researchers indicated negative association of bullying and mental and/or physiological health (Hase et al., 2015; Laschinger & Nosko, 2015; Shetgiri et al., 2015). However, few studies addressed the impact of bullying on the physical health of the victims. The results of the present study indicated that traditional bullying (i.e., verbal bullying and social bullying), as well as cyberbullying (i.e., visual bullying), had a negative impact on physical health of the victims. In addition, verbal aggressiveness, as a separate type of bullying, also had a negative impact on the victim's physical health similar to other types of bullying.

The findings of the present study in the U.S. were consistent with previous research in other countries reporting negative impacts of bullying on various aspects of the victim's life, including mental health and risky behaviors. Hertz, Jones, Barrios, David-Ferdon, and Holt (2015) found that bullying caused risk behaviors or conditions among high school students in the United States, such as asthma, inadequate sleep, substance use, sexually risky behaviors, unhealthy weight control, and physical inactivity, as well as dating and sexual violence, and suicide. Romo and Kelvin (2016) conducted research in Latin American (i.e., Bolivia, Costa Rica, Honduras, Peru, and Uruguay) and

documented that bullying victimization was associated with risky health behaviors, including suicide intention and attempt, tobacco use, truancy, physical fighting and unprotected sexual intercourse. Chang et al. (2013) reported association between cyberbullying and school bullying with increased depression among Taiwanese adolescents.

Few studies addressed the relationship between bullying and physical health of the victims. However, the findings of these studies demonstrated that traditional (i.e., verbal and social victimization) and cyberbullying (i.e., visual bullying), as well as verbal aggressiveness, had a negative impact on physical health of the victims, and was associated with the victims' sleep disturbance, headaches, gastrointestinal problems, and respiratory infections. In addition, the results demonstrated a high level of multicolleniarity between the examined variables. This phenomenon indicated that bullies intend to utilize all types of victimization against the chosen target. It means that once chosen, the victim could experience all types of bullying. The high correlation of the examined variables could also address the victims' perception of being bullied and/or being healthy.

Implications of Study

The results of this study have significant implications for practices at universities. Providing informing about negative health consequences is a very important tool to spread awareness of this destructive phenomenon. Traditional and cyberbullying might cause not only interpersonal problems, but also have a negative influence on the victim's health. These problems could lead to multiple absences at school, and have a negative association with student's academic performance. University authorities might consider

development of bullying prevention programs (Hertz et al., 2015; Squires, Sprangler, Deconde, Johnson, & English, 2013). These programs would be beneficial to include information about various types of bullying, and its negative consequences on the victims' well-being. Students should be informed about support systems to communicate this problem in order to find an effective solution to this issue. Students need to be aware of resources on campus, such as counseling centers and health treatments to prevent the negative outcomes of victimization. In addition, reasons for bullying should be thoroughly evaluated in order to establish a healthier school environment, as well as find effective solutions to address this issue.

Prevention programs could also be replicated in various organizations. Previous research indicated that bullying was a serious problem in organizations, and have numerous negative consequences in the workplace. Verkuil, Atasayi, and Molendijk (2015) found that workplace bullying was positively associated with symptoms of depression, anxiety and stress-related psychological complaints. In addition, they reported that workplace bullying was related to mental health issues over time. Negative health outcomes were associated with increased absenteeism, burnout, lower job satisfaction and lower morale, as well as cause organization-related effects damaging productivity and reputation. Workplace bullying also contributed to organizational and financial damages, including the cost of replacing absent victims, recruitment associated with high staff turnover, formal complaints processing costs, and lost business due to the damage of a company's image (Bartlett & Bartlett, 2011; Moayed, Daraiseh, Shell, & Salem, 2006; Namie, 2007). For example, it was reported that workplace bullying in Australia cost between $6 billion and $36 billion every year (Productivity Commission,

2010, as cited in Skinner et al., 2015). Spreading awareness of workplace bullying and development of prevention programs are important for maintaining a healthy environment in organizations.

Bullying prevention programs could be developed based on experiences of the earlier implemented campaigns. The first Norwegian intervention campaign against bullying was developed using the Olweus self-report questionnaire in 1983 and resulted in a decrease of an estimated 50% of bullying (Smith & Brain, 2000). Another substantial monitored intervention was conducted in Sheffield, England, from 1991 to 1994. The participating schools observed a decrease in bullying, especially those schools that developed anti-bullying policies, and programs working with individuals and groups. Other intervention campaigns included anti-bullying programs in Toronto, Canada; in the Flanders region of Belgium; and in Schleswig-Holstein in Germany. All of these campaigns utilized the anti-bullying program developed in 1983 by Olweus (as cited in Smith & Brain, 2000). Recently, additional researchers addressed anti-bullying programs in schools and the workplace. According to Jones and Augustine (2015), effectiveness of anti-bullying programs in schools depends on involvement of the community in solving this problem (i.e., faculty, staff, students, parents, and administrators). The programs should focus on teaching children and adults to be empathetic to others. Another way to increase effectiveness of anti-bullying programs is "to prepare and promote the professional skills of teachers and school counselors to deal effectively with behavioral problems of students" (Vahedi, Fathi Azar, & Golparvar, 2016, p. 68). It is important that anti-bullying policies and procedures are adopted in organizations (Francis, 2015). In order to prevent bullying and harassment, employers, managers and employees should be

trained on recognizing assertiveness and aggression, as well as implementing conflict resolution strategies (Etienne, 2014).

Limitations and Directions for Further Research

One limitation of the present study was the impact of bullying on victims' physical health being evaluated based on self-report surveys. Self-report tools reflect victims' perception and may not provide an accurate assessment of their situation. Students may report being bullied because of their low self-esteem, therefore, assuming that any negative communication or situation is bullying. Some individuals who perceive themselves as victims or become targets of bullying might be predisposed to psychological or emotional orientations towards bullying. Other students may not accept the fact that they were targets of bullying and may not report victimization because of embarrassment. Some students may not trust that their identity was protected, and choose not reveal to information about being victimized for fear of being punished or bullied by offenders. Although the purpose of this study was to examine the impact of bullying on victims' health in academia, bullying could also have a negative effect on the heath of student bullies resulting in their poor well-being and academic performance. This information could also be addressed in anti-bullying programs.

Another limitation of this study was data being collected at only one university. Replication of this study is required by other universities in order to obtain more comprehensive results. Qualitative methods, such as interviews or focus groups, could also provide greater depth regarding our understanding of bullying issues at universities. In addition, analyzing the bullying and victimization process from a cross-cultural lens could provide highlighted issues in diverse communities and organizations.

While previous research and the present study concentrated on evaluating negative aspects of bullying, little attention has been focused on bullying that contributes to expanding communication and developing effective social skills among victims. Although a search of academic articles did not provide results in this area, the topic of bullying has been addressed and illustrated in popular movies. For example, “Whiplash” (written and directed by Damien Chazelle) is a 2014, American drama film depicting the relationship between an ambitious jazz student and an aggressive instructor. The instructor demonstrates strategies of physical bullying, verbal bullying, and verbal aggressiveness to discover the “greatness” of his student. These technics resulted in a great solo performance of the young musician. Another movie is “Full Metal Jacket,” a 1987 British-American war film directed and produced by Stanley Kubrick. The story is about U.S. Marines through their training and the experiences during the Vietnam War. The film's title refers to the full metal jacket bullet used by soldiers. The tough environment of training presents organizational bullying, but these tough strategies help soldiers to survive in the war. While bullying is not being promoted here, it is a strategy that has been utilized during specific circumstances, and one that should be more fully explored.

Conclusion

Various forms of bullying have been part of our society since the 1860s, initially focusing on children repeatedly engaging in negative behaviors towards victims to make them feel inferior. This type of harassment has expanded over the years to include similar behaviors generated amongst individuals at universities, the workplace, and socially in both face-to-face encounters and via technology. The conditions of bullying criteria that

includes aggressive behaviors repeated over time and the imbalance of power contributes to negative and destructive interpersonal and social experiences. The results of this study confirmed that traditional bullying (i.e., verbal and social), cyberbullying (i.e., visual and text), and verbal aggressiveness were all associated with physical health issues of victims that included sleep disturbance, headaches, gastrointestinal problems, and respiratory infections. The harmful physical effects of bullying could potentially result in a long lasting impact on the victim's ability to function effectively, or develop positive social and work relationships. In addition, other participants involved in bullying situations, such as the bullies or perpetrators and bystanders, could all be adversely impacted by involvement in a frequently continuous cycle of bullying behaviors. It would be beneficial for future studies to examine the negative process of bullying from multiple perspectives to develop a greater understanding of this type of threatening confrontation.

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APPENDIX A

ADOLESCENT PEER RELATIONS INSTRUMENT-TARGET (APRI-T)*

Please indicate how often a student (or students) at this school has done the following things TO YOU since you have been at this school this year.

In the past year at this school …

1. I was teased by students saying things to me
2. I was pushed or shoved
3. A student wouldn't be friends with me because other people didn't like me
4. A student made rude remarks at me
5. I was hit or kicked hard
6. A student ignored me when they were with their friends
7. Jokes were made up about me
8. Students crashed into me on purpose as they walked by
9. A student got their friends to turn against me
10. My property was damaged on purpose
11. Things were said about my looks I didn't like
12. I wasn't invited to a student's place because other people didn't like me
13. I was ridiculed by students saying things to me
14. A student got students to start a rumor about me
15. Something was thrown at me to hit me
16. I was threatened to be physically hurt or harmed
17. I was left out of activities, games on purpose
18. I was called names I didn't like

* Traditional bullying victimization instrument

APPENDIX B

REVISED ADOLESCENT PEER RELATIONS INSTRUMENT-TARGET (RAPRI-T)*

Please indicate how often a student (or students) at this school has done the following things TO YOU since you have been at this school this year.

Target Visual

In the past year at this school …

1. A rude picture message was sent to my mobile phone.

2. My mobile phone account was used without my permission to send a picture message to other people to get me in trouble.

3. A student got other students to send a rude video message to my mobile phone.

4. A student forwarded a video message to my mobile phone they knew I wouldn't like.

5. My mobile phone account was used without my permission to send a video message to other people to get me in trouble.

Target Text

In the past year at this school …

1. A student sent me a nasty email.

2. A student sent me an email threatening to harm me.

3. A student sent me an instant chat message to hurt my feelings.

4. My instant chat account was used without my permission to send an instant chat message to other students to get me into trouble.

5. A student created a nasty profile page (like MySpace or YouTube) about me.

6. A student put something on a profile page (like MySpace or YouTube) about me to hurt my feelings.

7. I was called names I didn't like through a mobile phone text message.

8. A student sent me a text message to hurt my feelings

*Cyberbullying victimization instrument

APPENDIX C

VERBAL AGGRESSIVENESS SCALE (VAS)

Below are the items of VAS (A=indicates verbal aggressiveness, B=indicates verbal benevolence). Items indicating verbal benevolence are reverse coded before scoring the unidimensional VAS.

1. I am extremely careful to avoid attacking individuals' intelligence when I attack their ideas. (B)
2. When individuals are very stubborn, I use insults to soften the stubbornness. (A)*
3. I try very hard to avoid having other people feel bad about themselves when I try to influence them. (B)
4. When people refuse to do a task I know is important, without good reason, I tell them they are unreasonable. (A)
5. When others do things I regard as stupid, I try to be extremely gentle with them. (B)
6. If individuals I am trying to influence really deserve it, I attack their character. (A)*
7. When people behave in ways that are in very poor taste, I insult them in order to shock them into proper behavior. (A)
8. I try to make people feel good about themselves even when their ideas are stupid. (B)
9. When people simply will not budge on a matter of importance I lose my temper and say rather strong things to them. (A)
10. When people criticize my shortcomings, I take it in good humor and do not try to get back at them. (B)
11. When individuals insult me, I get a lot of pleasure out of really telling them off. (A)
12. When I dislike individuals greatly, I try not to show it in what I say or how I say it. (B)
13. I like poking fun at people who do things which are very stupid in order to stimulate their intelligence. (A)
14. When I attack persons' ideas, I try not to damage their self-concepts. (B)
15. When I try to influence people, I make a great effort not to offend them. (B)
16. When people do things which are mean or cruel, I attack their character in order to help correct their behavior. (A)*
17. I refuse to participate in arguments when they involve personal attacks. (B)
18. When nothing seems to work in trying to influence others, I yell and scream in order to get some movement from them. (A)*
19. When I am not able to refute others' positions, I try to make them feel defensive in order to weaken their positions. (A)
20. When an argument shifts to personal attacks, I try very hard to change the subject. (B)

* Items #2, #6, #16 and #18 are included in the current study

APPENDIX D

PHYSICAL HEALTH QUESTIONNAIRE (PHQ)*

Thefollowingitemsfocusonhowyouhavebeenfeeling*physically*duringthe*past year*.

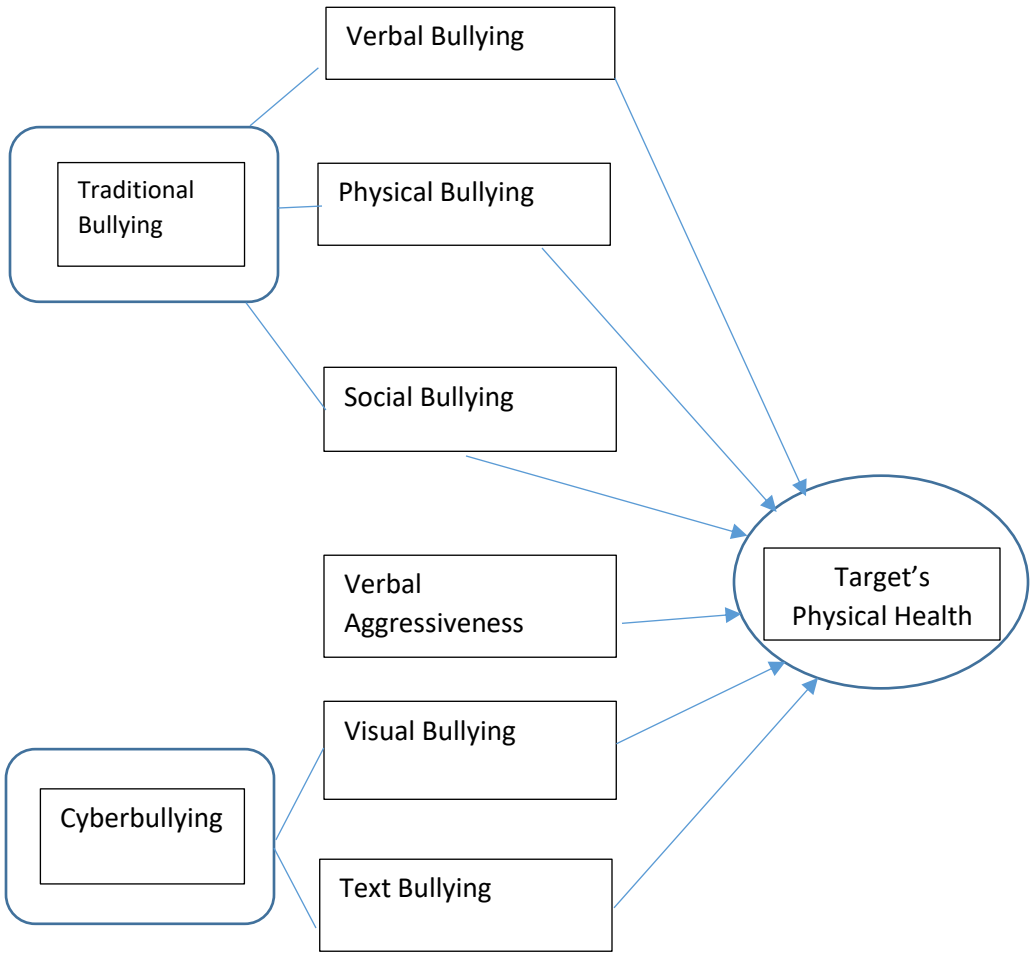
1. How often have you had difficulty getting to sleep at night?
2. How often have you woken up during the night?
3. How often have you had nightmares or disturbing dreams?
4. How often has your sleep been peaceful and undisturbed?
5. How often have you experienced headaches?
6. How often did you get a headache when there was a lot of pressure on you to get things done?
7. How often did you get a headache when you were frustrated because things were not going the way they should have or when you were annoyed at someone?
8. How often have you suffered from an upset stomach (indigestion)?
9. How often did you have to watch that you ate carefully to avoid stomach upsets?
10. How often did you feel nauseated ("sick to your stomach")?
11. How often were you constipated or did you suffer from diarrhea?
12. How many times have you had minor colds (that made you feel uncomfortable but didn't keep you sick in bed or make you miss work)?
    0 times 1–2 time 3 times 4 times 5 times 6 times 7+ times
13. How many times have you had respiratory infections more severe than minor colds that "laid you low" (such as bronchitis, sinusitis, etc.)?
    0 times 1–2 time 3 times 4 times 5 times 6 times 7+ times
14. When you had a bad cold or flu, how long did it typically last?
    1 day 2 days 3 days 4 days 5 days 6 days 7+ days

Note. Item 4 should be reverse scored.

* PHQ = physical health outcomes instrument

APPENDIX E

PRELIMINARY MEASUREMENT MODEL



APPENDIX F

REVISED MEASUREMENT MODEL