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Walden University

College of Social and Behavioral Sciences

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Helene M. Topping

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Walden University 2021

Abstract

The Implementation of David's Law to Address Cyberbullying in Texas Public School

Districts

by

Helene M. Topping

MS, Capitol College, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Criminal Justice

Walden University

May 2021

Abstract

Since the advent of the internet and the proliferation of social media in recent decades, a new form of bullying, cyberbullying, has emerged with serious repercussions for the physical and mental health of many persons, especially youth. In response, legislation was passed in all 50 states, including Texas, where the mandate to address all bullying, including cyberbullying, behaviors in schools was formalized by David's Law in 2017. This law requires that policy and procedures be put in place in Texas public school districts. The problem is that it has not been determined whether David's Law has been implemented in all schools. The purpose of this study was to determine the degree of compliance with David's Law in Texas public school districts. The theoretical framework of this study was the theory of authoritative school climate, the direct descendant of Baumrind's theory of authoritative parenting. The key research questions sought to determine, for each school district, how many of the requirements of David's Law were met, whether there was a relationship between compliance and factors such as school size, as well as lack of compliance and variables such as limited funding. The research design was nonexperimental and quantitative, using data obtained from a homogenous convenience sampling survey of Texas public school district teachers. The data were transformed into frequencies and simple linear regressions. The key finding was that David's Law was implemented in a significant number of Texas public school districts and had reduced bullying behaviors, including cyberbullying. Positive social change that may result is the enhanced safety of Texas students, which could result in improved wellbeing and academic performance.

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Dedication

I dedicate this dissertation to my loving husband of 53 years, George, who has always been my best friend and strongest supporter. I also want to thank my children, Michelle, Paul, Annette, and Nicole who have lovingly helped me with any and all challenges I have faced as I embarked on my doctoral journey. Lastly, all 9 of my wonderful grandchildren have been so inspiring. I love you all.

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Chapter 1: Introduction to the Study

Introduction

Parents and teachers in virtually all parts of the United States have been confronted with children and adolescents who engage in or have been victimized by bullying activities. The Centers for Disease Control and Prevention (CDC) stated that bullying is a form of violence practiced by some youth and that those who bully or are bullied experience the most serious outcomes with increased risk for mental health and behavior problems (CDC, 2019). The environment where much of the bullying, including cyberbullying, occurs is the school. Essentially, bullying is likely to have taken place as long as there have been schools (Fluck, 2018). Bullying in the school can be physical, including hitting and kicking, or psychological, such as insults, spreading rumors, harassing, gossiping, or threatening. Sometimes, it consists of merely not including some children or teens in activities shared by their peers. School climate can be a significant predictor of bullying/cyberbullying behavior and victimization. Muijs (2017) stated that school climate is a powerful contextual factor in addition to the influence of peers and peer status. Victims of bullying/cyberbullying activities can and often do, suffer physically and/or emotionally, even to the point of suicide ideation.

With the advent of the internet and the availability of devices to engage in online activity, for example, laptop computers and smartphones, many would-be bullies began to see the internet as the environment for their harassing activities. This became known as cyberbullying. It has many of the same characteristics as traditional bullying, such as harmful intent, a power imbalance, and repetition (Rao et al., 2018). There are many unfortunate outcomes for victims of all bullying including cyberbullying, including anxiety and depression, fear, reduced academic progress, and thoughts of suicide (Payne, & Hutzell, 2017). It is the latter that has generated the most concern and has been the subject of much discussion. Kim et al. (2019) indicated in an article that cyberbullying may be more egregious than other forms of hostility, because it is often repetitive, difficult to avoid, can affect several victims, and the bully may remain anonymous. These authors indicated that a student's perception of school connectedness may offer protection against the ill-effects of cyberbullying. In their study, they found that cyber victimization, rather than cyberbullying, had an association with suicide, but that a student's sense of school belongingness helped to buffer the effect of victimization on the potential for suicide (Kim et al., 2019). As the number of youthful suicides began to rise, public concern increased to the point that legislators were urged to pass laws to address the problem. As a result, all 50 states in the United States have passed bullying/cyberbullying legislation.

The present study was concerned with the Texas antibullying law known as David's Law that was passed in 2017, after the tragic death by suicide of a young man (David Molak) who had been victimized by cyberbullying. David's Law specified that all Texas public school districts must implement anticyberbullying policies and procedures (Texas Legislature, 2017). It prohibited bullying, including cyberbullying. and specified actions to be taken in response to this prohibited form of behavior. The determination of the status of Texas public school districts' compliance with David's Law is an important component of the fight against bullying/cyberbullying in Texas. If the law has actually been implemented as intended throughout the state of Texas, school climate will improve, enhancing the well-being of young people in the state. David's Law has the potential to make a significant contribution to positive social change because the youth of the state will be able to feel safe and focus on their education, which can ultimately result in their becoming solid citizens.

The major sections after the Introduction of this chapter are the Background which described how the internet and electronic devices enabled the practice of online bullying, in other words, cyberbullying. The next section is the Problem Statement which affirmed that as of yet, there is no definitive knowledge as to whether or not Texas' antibullying law, David's Law, was implemented in Texas public schools. Next, the Purpose of the Study affirms that the study was conducted to ascertain the status of implementation of David's Law and there is a brief description of the survey to solicit the information. In the next section, Research Questions and Hypotheses, the study's three research questions and accompanying hypotheses are provided. The next section, Framework, contains a discussion of school safety and the underlying framework: the theory of authoritative school climate. Next, is the Nature of the Study in which it was stated that the study is quantitative, using a statistical approach to the data derived from the survey. The Definitions of terms unique to this research effort, followed by Assumptions underlying the study are next. The Scope and Delimitations, followed by the Significance are in the next sections and lastly, a Summary is presented.

Background

The internet, called the "Information Superhighway" (Benson, 2019), enables people worldwide to communicate and gain access to information. In the wake of the Cold War (the late 1940s to 1990), the United States Department of Defense established the Advanced Research Projects Agency (ARPA) to serve as an instrument for scientific collaboration. Computers could communicate over a fast message-switching service. By 1973, it was determined that electronic messaging could be established over the internet, as it connected not only computers to each other, but also networks. This is how ARPANET became the internet. Progress continued unabated until in 1992, there were 1 million hosts (computers) on the internet (Cohen-Almagor, 2011). Since then, it has become the ubiquitous mode of communication for users of all ages, nationalities, and locations.

Toward the late 1990s, personal computers became more affordable, and households began to acquire these devices to navigate the internet and gain instant access to information. However, it was not long before internet aficionados decided to develop social media sites, such as Facebook and Instagram, and misuse of the internet started quickly thereafter. The social media sites were seen by some as a good way to harass, embarrass, and even threaten people. This is how cyberbullying started, facilitated by the fact it can be performed at any time and place, since the perpetrator and victim need not be in proximity (Låftman et al., 2017. This was exacerbated by the advent of mobile phones and smartphones, after introduction of the Apple iPhone by Steve Jobs in 2007 (Lachman et al., 2019). These devices captured the interest of young people around the globe since they are highly portable and convenient, providing a medium for youth to express attitudes and judgments about others, sometimes in harmful ways. Teenagers today use their cell phone less for conversation than for sending text messages. They have a close connection with their smartphones which have become a central element in their lives (Carrington, 2017).

Young people are profoundly affected by their peers, as they begin to migrate from their parents' influence to that of individuals the same age. Early adolescence is a time when young people are in transition mode and are eager to establish their social status, sometimes using aggression to guide their interactions. What is most important for some adolescents is to gain the approval of their peers, even at the expense of causing harm to others (Farrell et al., 2017). This can lead to inappropriate use of social media.

Bullying and cyberbullying are serious threats to the well-being of young people across the globe. While there is not yet a standard definition of cyberbullying, its characteristics render it easy to detect. Cyberbullying consists of intentional, repeated acts of sending aggressive or harmful messages online to a victim with the intent to harass, ridicule or mistreat the recipient (Truell et al., 2019). In July 2019, the National Center for Education (NCES) stated that 20% of students between the ages of 12 and 18 were bullied during the 2016-2017 school year (NCES Blog Editor, 2019). The Centers for Disease Control and Prevention (CDC) confirmed that bullying, including cyberbullying, can result in severe emotional distress and even suicide attempts, some of which succeed. In addition, the depression, anxiety, and constant fear of cyberbullied youth often lead to avoiding school and poor academic performance (CDC, 2014). The social media site that has been identified as the most commonly used for cyberbullying is Facebook. In fact, 54% of Facebook users reported that they have experienced cyberbullying (Chan et al., 2019). There may be a correlation between young persons' risky online activities and how much time is spent online. In addition, the frequency of risky internet use (for example, providing personal information) can be related to both the perpetrator and the victim of cyberbullying.

The most devastating result of cyberbullying is suicide. A study that was conducted over a 21-year period revealed that cyberbullied children and young people under the age of 25 are more than twice as likely to hurt themselves and even attempt suicide (NewsRx, 2018). What is particularly alarming is the fact that 'cyber-suicide pacts' among young people on the web (internet) have been identified in Southeast Asia. The anonymity of the internet makes it possible for total strangers to engage in these pacts (Lee, & Kwon, 2018). This practice has become prevalent worldwide.

In the state of Texas, there have been dire consequences of cyberbullying. In 2014, Viviana Aguirre, a student at an El Paso high school was harassed on Facebook by four other girls. She responded by hanging herself (Hammer, 2017). In November 2016, a Houston-area high school student named Brandy Vela shot herself to death after having been bullied about her weight in text messages created by an untraceable smartphone application and a phony Facebook page (CBS News, 2016). In January 2016, David, Molak, a 16-year-old Alamo Heights High School student committed suicide after months of enduring mocking and physical threats (Collins et al., 2017). His death led to the 2017 passage of Senate Bill 179, David's Law (Ward, 2017). Another young Texan,

Matthew Vasquez, who suffered from leukemia, survived the taunting of others who suggested he end his life, but fortunately, he is now in remission (Nichols, 2016). Clearly, bullying, including cyberbullying, is a serious problem that requires a committed effort to prevent its occurrence.

Problem Statement

The problem addressed in this study is whether Texas public-school districts have complied with David's Law (passed in 2017) which requires each school district to establish policy to prevent and mediate bullying incidents between students (SB 179 -Texas Legislature Online, 2017). While technology has generated improvements in communication, it is also responsible for creating an environment for cyberbullying which has had serious repercussions for young people worldwide, including the state of Texas. Efforts to combat bullying and cyberbullying have included state-passed legislation, such as David's Law in Texas. However, the implementation of David's Law has not been determined.

The need for antibullying, including anticyberbullying, legislation is clear. While Texas ultimately passed David's Law to address bullying/cyberbullying in 2017, it has not been verified whether school districts have complied. As recently as September 2020, the CDC indicated that the occurrence of bullying, including cyberbullying, is still increasing nationwide; however, bulling/cyberbullying has decreased in Texas by 2.5% -4.5% in the years since David's Law was passed. In addition, Texas suicide attempts have also decreased, but still exceed the national rate (Patterson, n.d.). The gravity of bullying/cyberbullying cannot be ignored and the need to verify compliance with David's Law is paramount.

While practiced by some adults, cyberbullying is usually performed by children and adolescents who employ social media to humiliate, threaten, and even terrorize. It has been described as aggressive and repetitive behavior that may involve a power imbalance (Milosevic, 2017). Email, texting, and social media sites have created an environment for young people to harm one another, aided by devices such as smartphones and tablets. Children seek acceptance and peer recognition, but the new virtual communities may exacerbate existing insecurities (Livazovic & Ham, 2019). Children can send each other hurtful texts, spread rumors, and create web pages and videos (Hinduja, & Patchin, 2018). Since cyberbullying is anonymous, it emboldens the offender to continue its practice. Some children have been cyberbullied to the extent that suggestions to end their "meaningless" lives have led to dire consequences like suicide.

In Texas, there have been reported incidents of suicide provoked by cyberbullying, for example, Vivianna Aguirre, Brandy Vela, and David Molak. The latter prompted a law, David's Law, which required Texas public school districts to create bullying/cyberbullying policies and to provide students, parents, and others with an anonymous reporting vehicle. The law even compelled school districts to investigate reports of bullying/cyberbullying that occur off-campus or during non-school hours (Chipp, 2017).

There is a gap in the literature about whether David's Law has been implemented in Texas public-schools. The National Center for Biotechnology Information (NCBI), in a book entitled Preventing Bullying Through Science, Policy, and Practice,

acknowledged that there has been limited research on the implementation of state antibullying and anticyberbullying policies and laws. This could be a consequence of the fact that the focus on law and policy relative to bullying/cyberbullying is fairly recent, as well as a lack of attention to the dynamics of how social policies are carried out (Rivara, 2016). This study was conducted because the post enactment results of David's Law, in particular, compliance, have not been ascertained. Thus, this study is focused on the implementation of David's Law in Texas. Since bullying and cyberbullying have a direct relationship with school climate and environment, children may no longer feel safe in school, reinforcing the need for those in positions of authority within the school districts, for example, principals and superintendents, to implement policy and procedures, and for teachers who observe and respond to instances of bullying, including cyberbullying, in their districts to act. Children cannot learn when they are in fear for their safety, so policies and programs must be implemented, consistent with David's Law and verification of compliance is needed.

Purpose of the Study

The purpose of this quantitative study was to determine whether the provisions of the Texas anticyberbullying law, David's Law, have been put into effect in the state's public-school districts. Because uncontrolled bullying/cyberbullying can have serious consequences, antibullying, including anticyberbullying, mandates have been passed in most states and Texas is no exception, although it was a relative latecomer. David's Law, passed in 2017 after three possibly avoidable tragedies, compelled all school districts to establish antibullying/cyberbullying processes and procedures, as well as anonymous reporting mechanisms. What is not known is the status of the application of David's Law in Texas public school districts. So far, no statistics have been compiled on this critical subject. A survey of a subset of Texas public-school teachers has been conducted to query them about the extent to which their school districts have complied with David's Law. In addition, the teachers are asked to indicate whether there were problems or impediments to the implementation of the law. The data was then subject to statistical analysis. In this way, a better understanding of the status of Texas public school districts' compliance with David's Law relative to the problem of bullying, including cyberbullying, was achieved.

Research Questions and Hypotheses

This study was concerned with the degree to which Texas public school districts have complied with David's Law which requires policies and procedures that deal with bullying, including cyberbullying. The answers to the research questions and hypotheses were derived from a survey of randomly chosen Texas public school district teachers. In general, research questions should be precise and focused, so the study becomes not only achievable, but also a valid test of the fundamental concept, like the implementation of David's Law in Texas public schools (Vandenbroucke & Pearce, 2018). The research questions and hypotheses were the following:

Research Question 1(RQ1): How many of the requirements of David's Law have been met?

 H_01 : None of the requirements of David's Law have been met.

 H_{a} 1: One to nine of the requirements of David's Law have been met.

Research Question 2(RQ2): Is there a relationship between a school district's number of students, accountability rating, and per student funding, and the number of requirements met from the teachers' survey which predicts compliance with David's Law?

 H_02 : there is no relationship between a school district's number of students, accountability rating, and per student funding, and the number of requirements met from the teachers' survey.

 H_a 2: there is a relationship between a school district's number of students, accountability rating, and per student funding, and number of requirements met from the teachers' survey.

Research Question 3 (RQ3): is there a relationship between insufficient time, limited funding, and lack of support, and noncompliance?

 H_03 : there is no relationship between insufficient time, limited funding, and lack of support, and non-compliance.

 H_a 3: there is a relationship between insufficient time, limited funding, and lack of support, and non-compliance.

Simplified, the nine requirements of David's Law were: (a) no bullying, (b) notify parents, (c) investigate and report, (c) no retaliation, (d) assistance and intervention, (e) counseling options, (f) anonymous reporting, (g) no discipline for self-defense, and (h) disabled victim. For each requirement, there was a variable which was incremented each time a respondent indicated that the variable was implemented. These variables are p_bully, p_retal, vict_act, proc_notif, counsel, anon_report, investigate, self_def, and ADA, such that if 75 respondents selected the first requirement (no bullying), p_bully is equal to 75. In this study, as can be seen from the research questions, Research Question 1 was answered by simply obtaining frequency counts of selected requirements. In Research Question 2, the dependent variable (met req) was a binary (dichotomous) variable which was either 0 or 1. If the total number of requirements chosen by a respondent was equal to or greater than 7, the value of met req was 1, whereas if the total number of requirements met was less than 7, the variable met req was set to 0. For Research Question 2, the teacher was asked to select one of the three choices that represent factors that facilitated compliance: the number of students, the accountability rating, and per student funding. These factors were the independent variables. For Research Question 3, the teacher was asked to identify the factor that most impeded compliance, among the following items: insufficient time, inadequate funding, and lack of support. These factors were the independent variables and again, met req was the dependent variable. The measure of association of the dependent and independent variables in Research Questions 2 and 3 was determined by performing a binary logistic regression to understand how changes in the independent variables were associated with changes in the probability of meeting sufficient requirements (7 or more).

Theoretical Framework for the Study

The primary focus of this study was whether Texas public school districts had implemented the requirements specified in David's Law, the 2017 Texas mandate to implement antibullying, including anticyberbullying, policies and procedures. This law is directly related to school safety, an issue of great importance to parents, school personnel, legislators, and the community. Underlying this study was the authoritative school climate theory which emphasizes structure and support. Expectations of student behavior and academic progress is high, while teachers and school staff interact with students in a respectful and caring manner (Cornell et al., 2017). All schools should be safe places for teachers to teach and students to learn. The presence of crime or violence should not be tolerated. This includes any form of bullying, including cyberbullying, because of its harmful effects to the physical, social, and emotional needs of young people. When these negative conditions exist, all persons affected are harmed, including the victim, the bully, and the bystander. Being a bystander or witness to bullying is thought to be the most frequent way any form of bullying is experienced (Wright et al., 2018). When bullying, including cyberbullying, occurs, it disrupts the education of those in the classroom, and has a negative impact on the entire community (Musu et al., 2018).

The theory of authoritative school climate is not new (Cornell et al., 2016). In fact, in 1908, Arthur Perry, a New York City school principal, wrote about the impact of school climate on the learning process. He spoke of school spirit, morale, and loyalty, as well as how school climate affected students and learning (Perry, 1908). In John Dewey's classic text, *Democracy and Education* (1916), he alluded to school climate when he stated that school environment should be characterized by efforts to prevent the undesirable aspects of the existing environment from influencing mental habits. He further stated that the school has a duty to remove what is undesirable to counter its impact (Dewey, 1916). Emile Durkheim, an eminent socialist, alluded to school climate in his work when he stated that the school is in itself a group or society whose principal function is intellectual activity and it is where a child can be trained and develop habits beyond the family, into a more collective social life (Durkheim, 1925/1961).

The theory of authoritative school climate was based on the work of Baumrind, a psychologist, activist, and researcher in child development, who originated the model of authoritative parenting in the 1960s. She differentiated parenting styles as authoritarian, permissive, and authoritative (American Psychological Association, 2019). Authoritative parenting makes it possible for parents to sustain warm relationships with their children without the loss of control. This parenting style consists of firm and consistent discipline whereby parents feel that discussing misconduct is more important than punishment. Authoritative parents believe their children can be successful and they want to provide the encouragement and support their children need to achieve expectations (Purdy, & Popan, 2018). The theory of authoritative school climate is the direct descendant of the theory of authoritative parenting.

In 1996, the National School Climate Center (NSCC) was founded at Teachers College, Columbia University. At that time, it was called the Center for Social and Emotional Education and had the expressed mission to assist in the development of leaders in social and emotional education. In 2007, the NSCC was established to link school climate research with policy and practice, in particular school climate surveys and measurement. The NSCC developed the National School Climate Standards which stated that the school community should seek to develop and maintain a positive school climate where there are policies that advance knowledge and participation, reduce or eliminate barriers to learning, and create a welcoming environment that fosters feelings of safety.

There is a growing body of research about the theory of authoritative school climate to which the U.S. federal government has responded. Thus, the U.S. Department of Education in 2010 launched the Safe and Supportive School (S3) Grant Program, a 4year grant program that awarded over \$38 million to 11 states to measure school safety. This is one of many measures introduced on a federal level and the states, including Texas, have indicated a commitment to the prevention and mitigation of bullying, including cyberbullying, for example, by passing David's Law in 2017, which was no doubt based on the theory of authoritative school climate. This theoretical framework was discussed in greater detail in Chapter 2.

In 2017, a report was issued that addressed federally administered school safety policy and programs from 1990 to 2016. In this report, it was stated that most of the schools in the United States did not have all-inclusive, effective supports to deal with the problems confronting young people, including bullying (Brock et al., 2018). In an article about student perceptions of school safety, it was asserted that prior victimization, including bullying, explains why fear of crime in school persists as a problem (Connell, 2016). In another article, the author cited that state laws that require school districts to implement strong, all-inclusive antibullying policies have produced an 8 to 12% reduction in bullying (Sabia, & Bass, 2017). Bullying is one of many factors that should be considered when implementing safe school programs that focus on prevention, intervention, and enforcement (Trump, (n.d.)).

In 2018, Hinduja, one of the founders of the Cyberbullying Research Center, issued an article in which he stated that when the theory of authoritative school climate is applied, bullying and cyberbullying can be greatly reduced. He cited that disciplinary structure whereby the students view the rules as strict, but applied fairly, and student support, such that students feel that their teachers want them to succeed and treat them with respect were the fundamental elements of this theory. Joined by Patchin, the Cyberbullying Research Center co-founder, he conducted a study of 1,500 students between the ages of 12 and 17 from across the United States. The results indicated that an authoritative school climate was characterized by a solid disciplinary structure, as well as student support and warmth. This can lead to reduced bullying and cyberbullying, as well as improved attendance and a sense of school safety (Hinduja, 2018). It has been stated that the theory of authoritative school climate is the framework for conceptualizing fundamental features of school climate that are associated with student risk behavior, with benefits such as a reduction in alcohol and marijuana consumption, bringing weapons to school, gang affiliation, and suicidal ideation (Cornell, & Huang, 2016). The authoritative school climate theory provides a conceptual framework for school climate.

Lastly, the theory of authoritative school climate had a strong relationship with the study's research questions as the degree of compliance and factors associated with (RQ2), as well as the factors associated with noncompliance (RQ3) indicated whether or not the theory of authoritative school climate was being embraced via implementation of David's (antibullying/cyberbullying) Law throughout Texas public schools.

Nature of the Study

The nature of this study was quantitative research based on a homogenous (only Texas public school teachers) convenience sampling survey of Texas public-school teachers. The study sought to answer questions such as "How many?" whereby the number of districts (as derived from the sample) that have complied with David's Law could be determined. This design was chosen because the data is structured and lends itself to statistical analysis. In addition, the total time commitment of the teachers was limited, which increased the chances they would respond. The teachers were chosen as the survey respondents because they are with the students during the school day, and personally observe and (frequently) intervene when incidents occur. The sample was derived using homogenous convenience sampling. There are 20 Education Service Centers (ESCs) in the state of Texas which represent various regions of the state, including rural south Texas, southeast central Texas, southeast Texas, West Gulf Coast Plain, east Texas, northeast Texas, northwest Texas, north central Texas, rural west Texas, west central Texas, the Panhandle, west Texas, and south central Texas. The ESCs were established in 1967 by the Texas Legislature to provide services to all school districts. Each ESC includes several counties, and these counties each have one or more school districts. Because Texas public school teachers routinely communicate with each other using teacher group Facebook pages, such as Texas Teachers' Lounge, Texas History Teachers, Texas Math Teachers, and Texas Special Education Teachers, these teacher group Facebook pages were used to solicit their input about the status of their schools' bullying, including cyberbullying, incidents and their school districts' policies

and procedures. The survey was conducted using the very tool they utilize on a day-today basis, Google Forms. I believe this increased their responsiveness, as they were accustomed to the application and were likely to find responding a familiar and simple process. In addition, teachers were rarely afforded the opportunity to provide confidential information about the reality of bullying/cyberbullying in their schools. Because the teacher group Facebook pages are in use by teachers throughout the state of Texas, the geographic span and frequency of teachers responding to the survey was likely to be significant. This approach increased the probability that a good sample size could be obtained since Texas has a total of 1027 public school districts in 20 regions (Ramsey, 2015). In the final analysis, it was the teachers who actually observed incidents of bullying, including cyberbullying, and who ultimately applied the requirements of David's Law in their classrooms, consistent with the theory of authoritative school climate.

Because compliance with David's Law is required, the objective of this study was to determine how many of the surveyed school districts had complied with David's Law, as measured by the independent variables (prohibit bullying, procedure notification, investigate, prohibit retaliation, victim actions, counsel, anonymous report, self-defense, and ADA) and which were summed per respondent to assign a value to determine whether their school had met req (set to 0 if seven or fewer requirements are selected). In addition, this study sought to identify the facilitation factors and impediments to implementation. All respondents were asked to select one of the three facilitation factors (RQ2): size (numbers of students), funding (per student funding) and rating (the Texas Teacher Accountability rating produced by the Texas Education Agency). The respondents were also directed to select one of the following impediments (RQ3): insufficient time, lack funding, and lack support. These variables were subject to binary logistic regression, where for each respondent, the dependent variable was met req and the independent variables were the facilitation factors and the impediments. This process should identify the facilitation factor and the impediment most frequently selected.

David's Law is an example of an unfunded mandate. While it supported the concept of a safe learning environment, a core responsibility of school districts, it provided no indication of the financial impact of the requirements of the law on a school district's funding. There was no provision for financial support to assist with implementation, which should be covered by general education funding. This could have limited the implementation of the law (Rivara, 2016). By developing this study and performing statistical analysis of the derived data, I anticipated that the answers to the research questions would be forthcoming, such that the status of compliance with David's Law in Texas public school districts would be better known and understood.

Definitions

There are several variables that were used to derive answers to the study's three research questions. David's Law consisted of nine requirements: (a) prohibition of bullying; (b) prohibition of retaliation against those who report bullying; (c) development of a procedure for parental (or guardian) notification of bullying; (d) development of actions victimized students can take to obtain assistance and intervention; (e) identification of available counseling; (f) anonymous reporting; (g) procedures for

investigating and verifying reports; (h) prohibition of disciplinary measures on a bullying victim who used reasonable self-defense; (i) compliance with federal law, including the Individual with Disabilities Education Act, when disciplining a student with disabilities (Texas Legislature, 2017).

Research Question 1 contained the following variables, each of which corresponds to a requirement of David's Law: prohibit bullying, prohibit retaliation, procedure notification, victim actions, counsel, anonymous report, investigate, selfdefense, and ADA. Each of these variables was the total of the selection of the corresponding requirement. Research Question 2 included several variables. The first was the dependent variable, met req (which was either 0 or 1) and the independent variables included size, funding, and rating. Research Question 3 had a dependent variable, did not meet req, and the independent variables included insufficient time, lack funding, and lack of support. The definitions follow:

Size: the size of the student body of the school district. The respondents were asked whether they believed this was the significant factor for their district meeting the requirements of David's Law.

Funding: the amount allocated by the school district to educate each student. The respondent was asked whether they believed this was the significant factor for met req.

Rating: based on the Texas Education Agency (TEA) school rating system with values of A through F (or some years it is numeric, such that F indicates below 60 and A represents 90 and over). The accountability rating is a composite of ratings of student achievement, school progress (student performance over time), and closing the gaps

(factors such as race/ethnicity and socioeconomic status; Texas Education Agency, 2019). In this survey, it was the perception of the respondents as to whether rating was a significant factor (not the rating itself).

Did not meet req: a dichotomous variable assigned a value of 0, if fewer than seven requirements were met and a value of 1, if seven or more requirements were met.

Insufficient time: did the respondents believe that their district failed to meet the requirements of David's Law because of scheduling and other time-related issues.

Lack funding: the respondents did not think the school district had the financial resources to implement antibullying/cyberbullying policy and procedures per David's Law.

Lack support: the respondents did not feel that the school district, to include parents/community and/or school staff, had expressed sufficient interest in participating in implementation efforts and provided no assistance.

Assumptions

While I did not have to make many assumptions in developing this study, there were nonetheless a few worth mentioning. The first assumption was that the Texas public school districts were, for the most part, compliant with David's Law. It is certainly possible that the implementation efforts are still underway, such that perfect compliance has not yet been reached, but overall, my assumption was that most of the school districts did attempt to comply. My reasoning was that teachers, principals, and superintendents, as well as other school staff, parents, and community members recognized the severity of bullying, including cyberbullying, and understood the need to take a strong proactive
stand. My second assumption was that bullying/cyberbullying existed in all Texas regions and school districts, given the natural propensity of young people to engage in bullying /cyberbullying and the easy availability of electronic devices. Another assumption was that the teachers who participated in the teacher group Facebook pages responded positively to the request for participation in the survey, as it provided them an opportunity to provide information about what actually occurred in their classrooms and their schools as a whole. It was even possible that they welcomed an opportunity to provide their input on this important subject. My next assumption was that implementation difficulty was most likely explained by a lack of funds since school budgets are tight and no funding had been awarded by the state to proceed with compliance. Also, no deadline was set for compliance which may have lessened the determination to proceed with implementation of the requirements when faced with multiple conflicting priorities. Lastly, and perhaps most importantly, I assumed that social phenomena, such as compliance with legislative measures, can be methodically measured and scientifically assessed (Nardi, 2018).

Scope and Delimitations

This study was developed with the express intent to determine whether or not, and to what extent, Texas public school districts had complied with David's Law, which was passed in 2017 to counteract the problem of bullying, including cyberbullying. The most logical way to make the determination of compliance was to request that information from those most in a position to respond correctly, given their participation in the implementation process, the school district teachers. They were the persons who were most aware of how the implementation was (or was not) conducted, to what degree, and the factors that had the greatest positive impact on the implementation effort. Also, they were the most knowledgeable about impediments confronted to bring about the degree of compliance they asserted.

The boundaries of this study were defined by school districts that were either Independent School Districts (ISDs) or Consolidated Independent School Districts (CISDs). No charter schools or private schools were included and only the teachers were requested to participate.

According to the *Encyclopedia of Survey Research Methods*, validity enhances the clarity of a study and leads to reduced researcher bias. The relationship, or lack thereof, between variables can be ascertained (Lavrakas, 2008). For example, in the teachers' survey, the relationship between met req and the accountability rating assigned by the Texas Education Agency (TEA) was based on the participants' selected responses. Internal validity is the credibility of a study and reflects its authenticity such that study results are trustworthy, including how the samples were chosen, the data, and the analysis. This makes it possible to replicate the study. Unfortunately, threats to internal validity can happen throughout the research process. These include inadequate knowledge during data gathering, evaluation and/or explanation. When data is being collected, there is the possibility of instrumentation issues and researcher bias (Mohajan, 2017). Since this study was based on the results of a survey, it was important that the survey items were reliable and that the respondents (teachers) were motivated to answer the items truthfully or the internal validity might be compromised. According to Nardi

(2018), there is an underlying assumption that it is possible to measure social phenomenon in a manner that is both systematic and scientific. In a book by Vannette and Krosnick (2017), it was stated that too many response choices can lead to ambiguity. In addition, in an article by Jager et al., (2017), the authors assert that the most customary nonprobability sampling approach employed in developmental science is convenience sampling. Convenience sampling is characterized by a target population that meets certain criteria, such as availability and willingness to participate in the survey. In other words, the participants are readily available to the researcher (Etikan et al., 2016). Because of their number, not all Texas teachers can be surveyed, and a homogenous convenience sampling was employed. These teachers reflected each of the 20 regions specified by the TEA. Another issue that was considered relative to surveys is that they were not too long, nor have too many choices per question, nor require an unreasonable amount of time. It was stated in an article by Menon and Muraleedharan (2020) that keeping the duration of a survey to less than 13 minutes may be optimum. In keeping with these considerations, the teachers' survey consisted of only 14 questions with as few as reasonable choices.

There are measurement issues that can affect the internal validity of a study. For valid data, the measure itself should be valid: the variable measures what it is assumed to measure. Given that I personally developed the teachers' survey, it has not been validated in any formal way. According to Lavrakas (2008), validation is usually determined by comparison of the instrument with something considered the "gold standard", an instrument whose validity is without question considered to be valid. In the case of this

study, there was no existing survey designed to obtain the same type of information from similar respondents.

Given that the study sample was based on convenience sampling, and the research questions were worded to minimize any connotation of failure or judgment, the study was the simplest way to obtain the needed information. The teachers were the most knowledgeable about the response of their districts to David's Law and could anonymously (no details about the respondents or the specific districts would be shared) provide that information without concern for exposing any issues that impacted compliance.

This study was based on the theory of authoritative school climate. There were other theories that I could have used as the basis of this study, including social learning theory (SLT), which has a focus on how peers interact, and self-control theory. In an article about social learning theory and self-control, the authors stated that both theories are related to problematic cyber behaviors. They indicated that the relationships formed over the internet are virtual and that the peers thus developed may have a positive relationship with deviant behavior, as occurs with cyberbullying. The internet users are conducting their activities in a virtual environment whereby they can observe and imitate actions of their virtual acquaintances without oversight (Nodeland, & Morris, 2020).

SLT is thought to be the work of Albert Bandura, a social cognitive psychologist. It is a blend of behaviorism and cognitive learning theories. Bandura asserted that human learning took place at a faster pace than believed by behaviorists who argued that learning was gradual, based on trial and error. On the other hand, Bandura believed learning could be nearly immediate when it is based on observing others and does not require reinforcement (Kretchmar, 2019). In 2012, the researcher Nabavi asserted that after a person observes others, he or she is likely to imitate and model what was seen, that is, learning has occurred. However, this learning can take place without introducing a behavior change. When aggressive models are seen, the onlooker may become more aggressive, but when constructive and positive models are observed, the observer may decide to imitate and model that behavior (Nabavi, 2012).

In 1990, Gottfredson and Hirschi's general theory of crime was published. In this book, they introduced the self-control theory, which has been often been debated in the context of delinquency, including acts such as cyberbullying. They affirmed that the lack of self-control may be the strongest factor in the development of unlawful and deviant behaviors. The person who has low self-control cannot resist when given an opportunity for instant satisfaction. Persons with limited self-control are not inclined to look ahead and foresee consequences which renders them vulnerable to those who seek victims for their harmful behaviors (Ilievsk, 2016). Gottfredson and Hirschi considered the correlation between behaviors over time to an enduring core trait, low self-control (Gottfredson, & Hirschi, 1990). The latter is even thought to have an association with becoming a victim of various acts, including cyberbullying. In a study conducted to determine if there is a relationship between SLT and self-control, authors Nodeland and Morris, found a significant relationship between the attributes of SLT, for example, associations with deviant peers and ascribing to characterizations favorable to criminal activity, and participation in cyber offenses. While they found that there was no

indication of a relationship between self-control and cyber transgressions, they did ascertain that the introduction of self-control into the SLT model resulted in cyber offenses. Thus, it would seem that the dominant theory relative to cyber offending is the SLT (Nodeland, & Morris, 2020). More recently, researchers have proposed that low self-control may not be as strongly associated with deviant acts, as once believed. In fact, in a 2017 article, the authors affirmed that bullying is a form of victimization that may not have a strong association with low self-control and risky behavior. Persons who have low self-control may select certain actions, such as involvement with peers who participate in delinquent activities, carry a weapon, or use drugs and alcohol. They may be drawn to these peers because they perceive that in their company, they will enjoy the thrill of instant gratification. This exposure to individuals with criminal leanings increases the risk that those with low self-control will be harmed, especially since in all probability, protective measures were not taken (Kulig et al., 2017).

Having evaluated and rejected SLT and the theory of self-control, it was important to recognize that while increasing understanding of how and why young people engage in bullying, including cyberbullying, activities, it was not the primary purpose of this study. It has certainly improved understanding of the offense, the offenders, and the victims, which provided a good foundation for how and why David's Law was needed. However, in the end, it was only through direct contact with the public school teachers that compliance with David's Law could be determined. Thus, this study was targeted at increasing knowledge about a specific law passed in a specific state regarding bullying, including cyberbullying, that is, David's Law in Texas.

Generalizability, or external validity, is the characteristic of a study whereby a relationship determined by the study can be observed using different instruments, respondents, locations and intervals of time (Calder et al., 1982). According to the Encyclopedia of Survey Research Methods, external validity is the property of a study whereby the research findings based on a sample (e. g., Texas public school district teachers who respond to the survey) can be generalized to a similar population (other Texas public school district teachers; Lavrakas, 2008). Thus, external validity is concerned with the generalizability of research results and findings to the population that the sample has been taken from, like the teachers who were surveyed versus all Texas public school district teachers. Also, generalizability may be derived by conducting the survey in another state with an antibullying law, for example, Oklahoma or Louisiana, and obtaining similar results. The process of generalizing the experimental results from the sample of subjects to the population is known as statistical inference. Among the threats to external validity are a limited number of participants, non-random sampling, and selection bias (Devroe, 2016). Given that the present study was based on a survey of a large sample of teachers in Texas public school districts and the respondents were chosen randomly and could choose to participate or not, selection bias was unlikely, and external validity was better assured.

Limitations

The present study was designed to obtain information from Texas public school district teachers about the degree to which their districts complied with the Texas antibullying/cyberbullying law, David's Law. Identifying the limitations of a study

should be part of the study itself, such that future researchers can justifiably place their confidence in the study's findings. If a study has limitations, such as poor research design, the findings may become suspect. It is important that study limitations be provided since it is a component of the ethical aspects of the study, such that transparency, portability, and repeatability are assured (Ross, & Bibler Zaidi, 2019).

Probably the greatest limitation of this study is the fact that it relied on the perceptions of the respondents: the Texas public school district teachers. However, they had no intrinsic motivation to be dishonest in their responses, as they had not actually designed or conducted the implementation, and they dealt with bullying and cyberbullying as it occurred in their classrooms. Since responding to the survey in a context such as a teacher group Facebook page where teachers routinely corresponded with one another on matters of interest to them as educators, even airing their concerns in an atmosphere of confidentiality and anonymity, they were probably the most likely to be candid and truthful.

Since I have no personal bias regarding whether or not David's Law was implemented, the study size was adequate, and the sampling procedure was consistent with descriptive nonexperimental guidelines, I believe that this study had no other limitations.

Significance

Since the degree of implementation of David's Law in Texas public school districts had not yet been determined, this study fills a gap in the literature. To date, no scholarly research has been conducted to assess how well school districts have responded

to this law. This may be true of school antibullying and anticyberbullying mandates throughout the United States. While David's Law was admirable in many respects, it did not indicate penalties for non-compliance or any process to verify that the state's school districts were in fact proceeding with the law's requirements. Given that bullying, including cyberbullying, has been a legitimate source of concern for parents and educators, and in light of its adverse consequences and the importance of school safety, following up on the status of David's Law was paramount. Unfortunately, schools faced strong deterrents against enforcing state-mandated antibullying laws, including anticyberbullying laws. These disincentives included the risk of expensive lawsuits generated by bullies and their parents who claim that their First Amendment speech rights were violated. On the website, stopbullying.gov, it is stated that not only are lawsuits expensive, but also they are time-consuming and frequently do not produce positive outcomes for the victims (stopbullying.gov, 2018). It is ironic that school districts trying to protect victimized students may face costly lawsuits (Simon, & Olson, 2014). It is hoped that by approaching the school district teachers, their awareness of the law and the need to comply with existing antibullying and anticyberbullying policy and procedures was heightened. This may spur further action on their part to promote and practice the implementation of the requirements of David's Law within their districts. Moreover, since the law was passed over 2 years ago, the teachers survey served as a reminder of both the law and the need to maintain vigilance and compliance. While anonymity of the surveyed teachers and school districts was maintained, the results can bring the issue of bullying, including cyberbullying, and the need for a positive school

climate to the awareness of those who read this study. A desired result of this study would be increased attention to school districts' compliance with antibullying/cyberbullying mandates, such that a positive social change can be achieved. Further, those who have an interest in bullying, including cyberbullying, and safe schools, regardless of the state in which they reside, may find this study useful relative to how their state responded to the problem.

Summary

I developed this study in response to concern about the negative effects of bullying, including cyberbullying, on young people, not only in Texas, but also worldwide. This problem came to the attention of the public after the suicides of young people in response to cyberbullying by their peers and led to the development of legislation to prevent future incidents. Hinduja and Patchin, founders of the Cyberbullying Research Center, cited in a 2018 article that there are teenagers who commit suicide because of harassment and mistreatment over the internet, which they called "cyberbullicide" (Patchin, & Hinduja, 2018). In addition, the subject of school safety applied to the issue of bullying, including cyberbullying, must be kept in mind as analysis takes place.

Since Texas passed an antibullying law in 2017, David's Law, certain requirements were imposed on the state's public school districts to prevent and respond effectively to unacceptable bullying and cyberbullying behaviors. Unfortunately, whether or not this actually has taken place across the state of Texas has never been subjected to scrutiny. Hence, this study was conducted. The overarching theory related to this study was the theory of authoritative school climate which seemed to be uniquely aligned with David's Law. Hinduja indicated that an authoritative school climate serves to decrease bullying, including cyberbullying, and not feeling safe in school (Hinduja, 2018).

The need for young people to be deterred from harming one another and to have specific guidelines relative to unacceptable behaviors is met by David's Law. However, it is not enough to simply prohibit bullying and cyberbullying, unless it can be verified that the law was put into effect. Those who can provide the most authoritative information about compliance are the teachers in public school districts throughout the state. Thus, a survey of Texas public school teachers was conducted. This is appropriate because the teachers know about the specific issues facing their school districts and the degree to which the requirements of David's Law were met. The sample of teachers surveyed was obtained by using a random sampling of posted survey responses. Given there were 20 Education Service Centers in Texas, each of which had from one to 27 counties with varying numbers of school districts, the responses from teachers who participated in the Facebook forums across the state of Texas should suffice. Collecting the information with minimal disturbance to these education professionals was a goal of the survey to be conducted. Anonymity was ensured because no names, of either the districts or the teachers, will be revealed to anyone and will remain solely on my personal computer. This served as encouragement to participate and hopefully, provided honest answers to the survey questions. Using the knowledge gained from this study would facilitate positive social change based on the application of the theory of authoritative school

climate whereby the student is valued and supported, leading to improved lifelong decisions.

There is a substantial body of literature on the subjects of bullying, including cyberbullying, safe schools, and authoritative school climate. This is presented and discussed in the next chapter of this study, Chapter 2, the Literature Review.

Chapter 2: Literature Review

Introduction

Bullying and cyberbullying are serious threats to the well-being of young people across the globe. Englander (2017) defined bullying as intended, persistent abuse by someone who perceives himself or herself as more powerful than the victim. The abuse can be verbal or physical. She further stated that as children grow older, they begin to use electronic media to repeatedly harass their peers with anonymity and at any time. This description of bullying and cyberbullying was also found in an article by Rao et al. (2018) and another article by Piccoli et al. (2019) who conducted a study of students ages 13 to 22 who were asked to take an anonymous self-report Web survey. The results indicated a relationship between group-norms and bullying, including cyberbullying. The authors also stated that anonymity, a power imbalance, and repetition were significant factors of cyberbullying.

Both bullying and cyberbullying have led to negative consequences for highly vulnerable members of the worldwide community, including children and adolescents. In the worst-case scenario, bullying and cyberbullying have led to suicide attempts, which are unfortunately sometimes successful (Hinduja, & Patchin, 2018). In 2017, Dimitrios

Nikolaou stated that cyberbullied students are more likely to experience suicidal ideation, leading to possible suicide attempts (Nikolaou, 2017). The CDC reported that in 2016, suicide became the second leading cause of death of persons aged 10-34 (Hedegaard et al., 2018). In July 2019, the NCES stated that 20% of students between the ages of 12 and 18 were bullied during the 2016-2017 school year (NCES Blog Editor, 2019). In an article about receiving malicious texts and predicting self-harming behavior among adolescents, Jose and Fu (2018) stated that adolescents who receive many malicious texts were more likely to perform acts of self-harming. In addition, the depression, anxiety, and constant fear of cyberbullied youth often led to avoiding school and poor academic performance (CDC, 2018). The social media site that has been identified as the most commonly used for cyberbullying is Facebook. There may be a correlation between young persons' risky online activities and how much time is spent online. In addition, the frequency of risky internet use (for example, providing personal information) can be related to both the perpetration and the victimization of cyberbullying (Sasson, & Mesch, 2017; Chen et al., 2017).

In response, in the past few years, bullying/cyberbullying legislation has been passed in many countries, as well as throughout the United States. While there is currently no federal legislation that deals directly with all aspects of cyberbullying (Manzella, 2018), there are several laws that include references to bullying and cyberbullying behaviors, which will be discussed in a later section of this study. Also, legislation has been passed on the state level. Texas is no exception and passed David's Law in 2017, named after the suicide of a Texas youth named David. This is a good start, but simply implementing a piece of legislation is no guarantee of compliance. David's Law has been in effect for over 2 years, and it has not yet been determined the extent to which Texas public school districts have complied. This is a gap in the literature which is addressed in this study. Given the potentially devastating effects of bullying, including cyberbullying, it is time to verify that the requirements specified in David's Law have been put into effect. This study investigated whether or not David's Law had been implemented. The major sections of Chapter 2 are as follows: Introduction, Literature Search Strategy, Theoretical Foundation, Literature Review Related to Key Variables and/or Concepts, and lastly, Summary and Conclusions.

Literature Search Strategy

The search for relevant and meaningful information was conducted by using the Walden University Library which afforded access to several databases, including Thoreau: Multi-Database Search, EBSCO, SAGE journals, the Criminal Justice Database, and EPIC. In addition, Google Scholar was employed. Search terms included *bullying, cyberbullying, state law, legislation, policies and programs, school safety, Texas,* and *Daniel's Law.*

The literature search strategy was primarily to obtain research as current as possible in light of the publication of this document (for example 2016 through 2021). Where historic information was needed to provide background (for example, the history of authoritative school climate), older references were sought.

Definition of Cyberbullying

Over the years there has been increased research into the phenomenon of bullying and cyberbullying. This has yielded valuable insights. For example, bullying, including cyberbullying is generally associated with repetition, an imbalance of power, anonymity, and the desire to inflict harm (Lianos, & McGrath, 2017; Palaghia, 2019). Bullying and cyberbullying consist of intentional, repeated acts of sending aggressive or harmful messages online to a victim with the intent to harass, ridicule or mistreat the recipient (Truell et al., 2019). While many definitions of cyberbullying have been proposed, there is still no standard definition of this behavior (Šincek et al., 2017; Espelage, & Hong, 2016). The CDC developed what is probably the best working definition of cyberbullying, whereby it is considered a type of youth violence consisting of unwanted aggressive behavior by one or more unrelated youth and which includes a power imbalance and repetition (CDC, 2019). It has been stated that bullying, including cyberbullying, has multiple forms, such as harassment, exclusion (excluding a person from a group), impersonation (stealing someone's identification and controlling his or her profile, which is also called fraping), and outing and trickery (revealing someone's personal information without his or her approval; Keitemog, 2018). Cyberbullying is a serious behavior of youth that has nontrivial consequences. The use of techniques and strategies that can engender a positive school climate may go a long way in dealing with this problem. A positive school climate is the fundamental concept in preventing and responding to bullying, including cyberbullying.

Theoretical Foundation

The primary focus of this study is whether Texas public school districts have implemented the requirements specified in David's Law, the 2017 Texas mandate to implement antibullying policies and procedures. This law is directly related to school safety, an issue of great importance to parents, school personnel, legislators, and the community. Underlying this study is the authoritative school climate theory which emphasizes structure and support. Expectations of student behavior and academic progress is high, while teachers and school staff interact with students in a respectful and caring manner (Cornell et al., 2017). All schools should be safe places for teachers to teach and students to learn. The presence of crime or violence should not be tolerated. This includes bullying and cyber-bullying because of their harmful effects to the physical, social, and emotional needs of young people. When these negative conditions exist, all persons affected are harmed, including the victim, the bully and the bystander. Being a bystander or witness to bullying and cyberbullying is thought to be the most frequent way bullying is experienced (Wright et al., 2018). When bullying, including cyberbullying, occurs, it disrupts the education of those in the classroom, and has a negative impact on the entire community (Musu et al., 2018). The role played by school climate in the emergence of bullying, including cyber-bullying, is an essential element of this problem and the potential benefit of an authoritative school climate will be explored in more detail in this study.

Authoritative School Climate

The theory of authoritative school climate which emphasizes two core concepts, disciplinary structure and student support, is not new (Cornell et al., 2016). In fact, in 1908, Arthur Perry, a New York City school principal, wrote about the impact of school climate on the learning process. He spoke of school spirit, morale, and loyalty, as well as how school climate affects students and learning (Perry, 1908). In John Dewey's classic text (1916), he alluded to school climate when he stated that school environment should be characterized by efforts to prevent the undesirable aspects of the existing environment from influencing mental habits. He further stated that the school has a duty to remove what is undesirable to counter their impact (Dewey, 1916). Emile Durkheim, an eminent socialist, alluded to school climate in his work, when he stated that the school is in itself a group or society whose principal function is intellectual activity and it is where a child can be trained and develop habits beyond the family, into a more collective social life (Durkheim, 1925/1961).

In 1948, the United Nations Convention on the Rights of Children declared that governments have a responsibility to ensure equal access to quality education for all children. This requires respect for the innate dignity of each child such that there is an environment of tolerance and respect, without bullying or disciplinary activities that are harmful or humiliating (National School Climate Council, 2007). While educators have been interested in school climate throughout the 20th century, it was in the 1950s that research into this topic began in earnest. It was at this time that the perception emerged that context, that is, norms, belief systems, and relationships, have a pronounced effect on experience and learning. There was a growing awareness that school climate improvements are associated with violence prevention, including bullying. This resulted in heightened interest in school climate on the federal, state, and local levels, resulting in a rise in prosocial educational efforts, including instruction and intervention (Thapa, 2013). It is in this context that the theory of authoritative school climate began to emerge.

The theory of authoritative school climate has been subject to much analysis and discussion because safe schools are critical for student learning. The theory of authoritative school climate was based on the work of Baumrind, a psychologist, activist, and researcher in child development, who originated the model of authoritative parenting in the 1960s. She differentiated parenting styles as authoritarian, permissive, and authoritative (American Psychological Association, 2019). Authoritative parenting makes it possible for parents to sustain warm relationships with their children without the loss of control. This parenting style consists of firm and consistent discipline whereby parents feel that discussing misconduct is more important than punishment. Authoritative parents believe their children can be successful and they want to provide the encouragement and support their children need to achieve expectations (Purdy, & Popan, 2018).

As inquiry into effective approaches to discipline in the school progressed, the merits of the authoritative parenting approach was recognized and it was adapted to the school environment, such that it evolved into the authoritative school climate. Starting in the late 1960s, several tools to measure school climate were developed, including the Classroom Environment Scale, the Learning Environment Inventory, the My Class

Inventory, the Organizational Climate Description Questionnaire, the High School Characteristics Index, and the Elementary School Environment Survey. These tools were evaluated in an article by Anderson (1982) where he stated that school climate consists of the quality of the total environment in a school building, such that it includes the ecology or physical elements of the school, the characteristics of the individuals in the school, the social system or rules of operation and interaction in the school, and the school culture or norms and belief systems.

In 1996, the National School Climate Center (NSCC) was founded at Teachers College, Columbia University. At that time, it was called the Center for Social and Emotional Education and had the expressed mission to assist in the development of leaders in social and emotional education. In 2005, Adelman (a member of the National School Climate development team) and Taylor produced a book in which they affirmed that a nurturing and a supportive school climate promotes feelings of ability, autonomy, and engagement, such that students seek to further their personal development.

In 2007, the National School Climate Council was established to link school climate research with policy and practice, in particular school climate surveys and measurement. The National School Climate Council and the National School Climate Center worked closely together to the point where their names have become synonymous. The National School Climate Center developed the National School Climate Standards which stated that the school community should seek to develop and maintain a positive school climate where there are policies that advance knowledge and participation, reduce or eliminate barriers to learning, and create a welcoming environment that fosters feelings of safety. Such a school community develops meaningful practices and norms to advance a commitment to social justice (National School Climate Council, 2010).

As the concept of school safety gained momentum, the U.S. Department of Education in 2010 launched the Safe and Supportive School (S3) Grant Program, a fouryear grant program that awarded over \$38 million to 11 states to measure school safety. The states were Arizona, California, Iowa, Kansas, Louisiana, Maryland, Michigan, South Carolina, Tennessee, West Virginia, and Wisconsin. The education agencies in these states applied the funds to the development of measurement systems to assess learning conditions, including school safety, in individual schools and to inform the public of their findings. The grantee states then applied the information gained to improve conditions in the most challenged schools (National Center on Safe Supportive Learning Environments, n. d.).

In 2012, the National School Climate Center (NCSS) developed the Community Scale and the School Community Partnership Process, the latter of which is led by young people. The scale and process were based on a 2006 study by Cohen, the co-founder and president emeritus of the NSCC. In his study, Cohen affirmed that bullying is a matter of concern and called it "toxic". He further stated that school safety, like bullying, have drawn the attention of state legislators but that unfortunately, they too often focus on crime prevention and punishment.

Dewey Cornell, is a significant researcher and author on the subject of school climate. A member of the American Psychological Association, he is a clinical psychologist and Professor of Education at the University of Virginia, and the Director of the Virginia Youth Violence Project. He has conducted significant educational and psychological research regarding school climate and bullying, to facilitate improvement efforts. In 2007, Cornell and his fellow researchers engaged in research on school climate and bullying with a specific focus on authoritative school climate. They conducted studies with students and teachers in Virginia junior and senior high schools in 2007 and again, in 2013 and 2014. This became the basis of the authoritative school climate Survey (ASCS), which is also derived from a prior survey instrument, the School Climate Bullying Survey (SCBS) (Fisher et al., 2018). While the latter survey was renamed, it is clear that the authoritative school climate theory has a history of association with bullying, including cyberbullying, which substantiates its role as the theoretical framework of the current study.

In 2013, Thapa et al. (2013) described their school climate which reinforced the concept that school climate promotes positive youth development, including social and emotional components, as well as physical safety. They concluded that school climate plays a significant role in increased academic achievement and graduation rates and facilitates civic learning. In a 2016 study, Konold et al., sought to determine whether Black, Hispanic, and White high school students had different perceptions of school climate by administering the ASCS. The results indicated that Black and White students in the same school had different perceptions of school climate, where the White students indicated statistically greater levels of support and disciplinary structure than their Black classmates, whereas the Black students revealed greater academic expectations. There were no significant differences among the White and Hispanic

students. Thus, overall, it is not unreasonable to expect that a less than benign school environment may lead to instances of bullying, including cyberbullying.

In 2018, Hinduja, one of the founders of the Cyberbullying Research Center, issued an article in which he stated that when the theory of authoritative school climate is applied, bullying and cyberbullying can be greatly reduced. He cited that disciplinary structure whereby the students view the rules as strict, but applied fairly, and student support, such that students feel that their teachers want them to succeed and treat them with respect were the fundamental elements of this theory. Joined by Patchin, the Cyberbullying Research Center co-founder, he conducted a study of 1,500 students between the ages of 12 and 17 from across the United States. The results indicated that an authoritative school climate is characterized by a solid disciplinary structure, as well as student support and warmth. This can lead to reduced bullying and cyberbullying, as well as improved attendance and a sense of school safety (Hinduja, 2018).

In another 2018 study, Thornberg et al., were interested in determining whether authoritative school climate is related to being a bullying victim or bystander (a person who witnesses bullying) behaviors. They stated their belief that authoritative parenting and an authoritative school climate both served as protective factors in the prevention of school bullying. Thornberg and his colleagues hypothesized that an authoritative school climate is associated with increased defender behavior (by the bystander), and less bullying victimization. They developed a 15-item scale to measure the authoritative school climate, as well as an 11-item self-report scale to measure bullying victimization. The results indicated that an authoritative school climate had a positive correlation with defender behavior and a negative correlation with bullying. Again, the theory of authoritative school climate is directly associated with school bullying and cyberbullying.

Studies of Authoritative School Climate

Researchers Brand et al. (2003) developed a questionnaire, *Inventory of School Climate* for Students (*ISC-S*), to evaluate school-level opinion of climate, cultural diversity, and school safety, using four-point scales. Questionnaire items included teacher support, explicitness and consistency of rules, safety, harshness of discipline, and peer interactions.

In an article by Brand et al. (2008), they discussed school climate and stated that the *Inventory of School Climate for Students (ISC-S)* provided reliable scores, as well as robust construct and predictive validity. They affirmed that there are two specific factors of school climate: safety and inclusiveness. These authors stated that students' experiences of school climate are significant contributors to school improvement efforts. They indicated that there was a need for a teacher measure of climate. As such, they conducted a series of studies that sought to construct a reliable and durable measure of teachers' experiences of school climate, to determine the extent to which teachers' ratings were consistent with those of the students, and to ascertain whether teachers' school climate ratings were related to students' academic success and adjustment. To this end, they conducted three studies, the first of which was a pilot to support development of a new measurement instrument. The next study involved a larger school population and sought to identify the relationship between teachers' and students' climate ratings which were determined to have a consistent relationship. The third and last study attempted to determine whether teacher ratings of social climate were related to students' academic achievement, conduct problems, and adjustment. Evidence of systematic relationships between teacher ratings and student outcomes helped establish the validity of the ISC-T scales. This was true even when students' socioeconomic (SES) status was taken into consideration. Academic performance was greater when teachers conveyed positive peer relationships among students, as well as reduced disruptiveness and safety issues. The article was concluded by the authors' statement that teacher and student ratings of climate provide complementary information. One of the most significant outputs of this study was the development of the *Inventory of School Climate -Teacher Version (ISC-T)* which was designed to obtain the views of teachers in middle and secondary schools relative to school climate. This questionnaire included several items found in the student version, including cultural diversity, safety problems, peer sensitivity, and from a teacher's perspective, there were items that focused on interactions with pupils and disruptive behavior.

Acosta et al. (2018) conducted a cross-sectional assessment of over 2,800 middle school students to determine how perceptions of school climate impacts bullying behaviors. They also examined what they called "mediating factors", that is, school connectedness, decisiveness, peer connections, and empathy, and their role relative to bullying. To measure school climate, they employed four scales derived from the *Inventory of School Climate: Consistency and Clarity of Rules and Expectations, Teacher Support, Positive Peer Interactions, and Student Input Into Decision Making.* School connectedness was evaluated on a five-point scale and a four-item scale was used for peer attachment. They also evaluated social skills by using the *Social Skills Improvement System-Rating Scale* (a self-rated 4-point scale) to determine perceptions of prosocial behavior relative to assertiveness and empathy. To assess bullying and cyberbullying, Acosta et al. administered the *Communities That Care Survey* to evaluate occurrence and frequency of verbal and physical bullying, as well as cyberbullying. This study validated the researchers' initial hypothesis that students who indicated a good school climate were not as likely to report experiences of being bullied and that a positive school enhances school attachment, peer relations, and social skills, all of which are related to less bullying. Overall, studies of school climate have reinforced the value of an authoritative school climate in response to bullying, including cyberbullying.

In an article by Cornell and Huang (2019), they asserted that school safety is probably the single most important aspect of a positive school climate that is respectful and supportive. When schools are unsafe, learning is hampered. They alluded to the *Every Student Succeeds Act* (ESSA), signed by President Obama in 2015, which became effective during the 2017-2018 school year. It was an updated version of President G. W. Bush's *No Child Left Behind Act* of 2001. The ESSA specifically referred to school climate whereby accountability for student success would be based not only on performance on tests, but other important factors such as attendance and school climate (Adler-Greene, 2019). Cornell and Huang (2019) continued their article by stating their belief that the validity and reliability of previous tests of cyberbullying may be limited because they are based on self-reports. They suggested an alternative method for acquiring data on school bullying, including cyberbullying, that is, asking students how much bullying and teasing they have witnessed among their fellow students. They spoke of an article issued by the National Criminal Justice Reference Service (NCJRS) in 2017 which was federally funded and in which they participated. The purpose of the project cited in this article was to develop a standard model for assessing school climate and safety based on the authoritative school climate theory. This article indicated that previous studies were all cross-sectional and that a better way to determine causal effects would be to conduct randomized control trials with an intervention to improve school climate and student outcomes. In addition, the article stated that presently, the study of school climate is hampered by multiple measures that do not offer a clear definition of school climate and are lacking validity as school-level measures (National Criminal Justice Reference Service, 2017). Cornell and Huang (2019) stated that they agreed with the NCJRS article, specifically in terms of the fact that data derived from school climate surveys are based on individual perception, rather than the school as a whole. Perhaps as research into school climate continues, different approaches that enhance validity and reliability as suggested by the NCJRS and Cornell and Huang will be employed. At this point, it is worthwhile to look into the history of cyberbullying, that is, how it evolved over time.

History of Cyberbullying

Extensive research has been conducted on the topic of cyberbullying and has provided much useful information. Aggression, which long preceded the internet, has been a significant problem throughout history and was facilitated by the advent of technology (Dilmaç et al., 2016). A look at the environment that fostered the emergence of cyberbullying, the internet, is in order. The latter, called the "Information Superhighway" (Benson, 2019), enables people worldwide to communicate and gain access to information. When the Cold War began after World War II, the United States Department of Defense established the Advanced Research Projects Agency (ARPA) for scientific collaboration. Computers could communicate over a fast message-switching service and by 1973, it was determined that electronic messaging could be conducted over the internet, because it connected not only computers, but also networks. This is how ARPANET became the internet.

Progress continued unabated till in 1992, there were 1 million hosts (computers) on the internet (Cohen-Almagor, 2018). Since then, it has become the ubiquitous mode of communication for users of all ages, nationalities, and locations. Toward the late 1990s, personal computers became more affordable, and it was not long before households began to acquire these devices to navigate the internet for instant access to information. A study of the relative quality of personal computers, both desktop and laptops, indicated that prices of these devices dropped significantly in the 1990s (Berndt, & Rappaport, 2001). However, soon thereafter, internet *aficionados* decided to develop social media sites, such as Facebook, Instagram, and Twitter, and misuse of the internet began. The social media sites were seen by some as a good way to harass, embarrass, and even threaten people. This is how cyberbullying started, facilitated by the fact it can be performed at any time, since the perpetrator and victim need not be in proximity (Låftman et al., 2017).

It is difficult to ascertain the degree to which bullying, including cyberbullying, occurs within the United States. According to the National Center of Education Statistics (NCES) in 2018, reported student bullying decreased by more than half (from 29% to 12%) from 1999-2000 to 2005-2006 (NCES, 2018). At approximately the same time, Justin Patchin, one of the founders of the Cyberbullying Research Center, reported that students surveyed reported being cyberbullied in the past 30 days at a rate of 17.4% as opposed to 2016 where the rate was 16.5%. Additionally, Patchin asserted that respondents indicated that they had experienced cyberbullying during their lifetime at a rate of 36.5% as compared to 2015 where the rate was 33.6%. While there may be a downward trend in the incidence of bullying, including cyberbullying, it clearly remains a serious problem (Patchin, 2019) and has been met with opposition for some time.

Early Cyberbullying Opposition

It is against this backdrop of easily available electronic devices that cyberbullying began. In the 1970s, Dan Olweus, a research professor, called the "father" of bullying research, started a comprehensive project to develop an understanding of bullies and victims (European congress reports, 2009). This is probably the first initiative to understand and confront the problem of bullying. As early as 1983, after the suicides of three adolescents in Norway, cyberbullying was recognized for its harmful potential. The Norwegian government responded by developing a prevention program spearheaded by Olweus, that is, the Olweus Bullying Prevention program (OBPP) in 1983-1985. This may well have been the first of its kind worldwide. This all-inclusive system has been successful in addressing bullying prevention from multiple perspectives. It was the

suicides of young people due to bullying that prompted the development of antibullying efforts and as technology advanced, electronic media became a desirable environment for cyberbullying, sometimes characterized by strong animosity and hostility. This led to young people being bullied over social media and some succumbed to suicidal ideation brought about by cyberbullies. Awareness of the harmful potential of cyberbullying began to emerge at this time.

In 2004, the term "cyberbullying" was coined by Bill Belsey (Caffrey, 2019). A Canadian educator and politician, he was disturbed by cyberbullying which he considered a form of harassment conducted with hostility. He is credited with founding the Web site, www.bullying.org, to help people who are confronting bullying by providing advice and a forum to share their bullying (Belsey, 2019).

During this time, two eminent authorities on cyberbullying emerged, Sameer Hinduja and Justin W. Patchin, co-directors of the Cyberbullying Research Center, founded in 2005. They have been researching cyberbullying since 2002 and have published several articles and books on the subject. Furthermore, the Youth Risk Behavior Surveillance System (YRBSS) was developed by the Centers for Disease Control and Prevention to gain information about teenage social issues and health risk behaviors in the U.S. Since 1991, a survey of 9th through 12th grade students is conducted every two years. The data obtained from these surveys has provided timely and reliable data for further study (Hatzenbuehler et al., 2017). Once young people were becoming adept in the use of personal computers, a new electronic device emerged, the smartphone which served to exacerbate the problem of cyberbullying.

Smartphones

Because smartphones have become ubiquitous with young people and have been used extensively in cyberbullying, it is appropriate that they be discussed in this study. They were responsible for increasing the potential for cyberbullying, after the introduction of the Apple iPhone by Steve Jobs in 2007 (Lachman et al., 2019). These devices captured the interest of young people around the globe, since they are highly portable and convenient, providing a medium for youth to express attitudes and judgments about others, sometimes in harmful ways. The advent of the smartphone made the internet mobile, thus increasing opportunities for cyberbullying. The portability and always-on aspects of these devices made them very attractive to young people worldwide. Today, teenagers use their cell phone less for conversation than for sending text messages. Not only have smartphones replaced earlier cellphones, but they have also become personal computers that can navigate the internet (Samaha & Hawhi, 2016). An interesting finding of a 2015 study of smartphone users, was that those who used their smartphones the most had higher narcissism scores (Hussain et al., 2017). This is indeed troubling.

As smartphones began to be used more frequently to perpetuate cyberbullying, there began to be concern about whether excessive smartphone usage may be an addiction, like gaming addiction, as found in the Diagnostic and Statistical Manual of Mental Disorders (DSM). Since smartphones can be used for many purposes in addition to simply conversations, for example, text messaging, access to internet applications, email, etc., some young people may become so engrossed with use of the smartphone that they have problems with daily activities and become anxious when they can no longer use these devices (Peckel, 2017). In addition, a study that examined the relation between peer group norms and cyberbullying found that the more often a Smartphone is used, the greater the likelihood of engaging in cyberbullying behaviors (Piccoli et al., 2019).

Those who were born in the years between 1995 and 2012, are growing up with smartphones and have never experienced life before the internet (Twenge, 2017). They have a close connection with their smartphones which have become a central element in their lives (Carrington, 2017). Teens have virtually abandoned face-to-face or in-person communication in favor of spending more time on electronic interaction (Twenge et al., 2018). This may be at the expense of emotional closeness and engender loneliness.

Monitoring the Future (MtF) is a program that has been in use since 1991. It is an ongoing study of the behaviors and attitudes of U.S. high school and college students, as well as young adults (MtF, n.d.). It is basically a survey that poses questions about the level of happiness experienced by the teenage respondents and about how they spend their free time. The results were that teenagers who spend more time on screen activities are more likely to be unhappy, and those who spend more time than average on activities other than onscreen more often consider themselves to be happy. In addition, adolescents who spent more time on social media and smartphones were more likely to report mental health issues, versus those who engaged in non-electronic activities, such in-person social interaction, sports and exercise (Twenge et al., 2018). Thus, the smartphone and other electronic devices may the mechanisms for young people to engage in inappropriate activities, such as sexting.

Sexting

A problem that has emerged in recent years is sexting, that is, transmitting text, pictures, or videos that contain sexual material over digital media. A study of 937 ethnically diverse teenage boys and girls from several high schools was conducted in southeast Texas. The results indicated that sexting was significantly linked with indications of depression, impulsivity, and the use of substances (Temple et al., 2014). There are occasions where young people suffered from the unintended distribution of an image. This can lead to cyberbullying and in some cases, suicide (Walsh, 2019). In some situations, sexting is a form of revenge pornography, a type of cyber-harassment, motivated by a desire to humiliate (Patterson et al., 2019). When revenge pornography occurs, the perpetrator often posts the victim's name and other identifying information. The victims of revenge pornography are usually women (Holoyda et al., 2018).

In an article by Choi et al. 2019, the authors stated that sexting is prevalent among both adolescents and emerging adults. Sexting emerged at the same time that smartphones became ubiquitous. Choi et al. performed a longitudinal analysis that assessed sexting behavior over a 4-year period. They described latent growth curve models that identify a young person's first participation in sexting and how the involvement may change over 4 years. In addition, they considered both the initial and changing sexting activities, as they relate to age, gender, race, and socioeconomic status, as well as whether dating and sexual activity have an association with sexting over time. The hypothesis was that sexting would increase over time, and that this increase would be related to an adolescent's sexual activity and how many persons he or she dated. They conducted annual surveys from the spring of 2011 through the spring of 2015. If students left the school, they were asked to take the survey on the Web (internet). The statistical analysis was performed using Mplus 7.4, with the result that there was an increase in sexting, sexual activity, and sexual partners, but a decrease in dating partners. Thus, there was a steady linear increase in sexting over time. The study also showed that while white adolescents were more involved in sexting at first, over time, non-whites were sexting at a greater rate. There were no significant findings relative to SES. In addition to sexting, texting has become a commonplace practice, among young and older persons.

Texting

A phenomenon that began to emerge with the advent of mobile phones is texting. While texting can be quite innocent as persons send quick messages to one another for legitimate and practical reasons, it can also be misused. An unfortunate result of the new technology is that it enabled young people to send each other hurtful text messages. In an article by members of the Cyberbullying Research Center, the authors included Burgess-Proctor et al (n.d.) who stated that cyberbullying often involves sending text messages that make fun of, threaten, or in some other way harass the recipient.

Blocking text messages is one way to deal for the recipient of unwelcome texts by preventing his or her phone from receiving texts from a specific number. There are settings on mobile phones that can be used to block undesired calls.

In a 2017 article by Lister-Landam et al., they affirmed that texting by adolescents exceeds all other forms of communication, even face-to-face interactions. They stated that texting is a form of rapid text-based communication that has become popular with

youth, particularly after providers started to offer unlimited voice and texting plans. One of the appealing characteristics of texting is that it is relatively private. They conducted a study to examine the relationships among frequency of youth texting, compulsive texting, and academic performance (as determined by grades, school bonding, and student perception of academic proficiency). In addition, they discussed a measure of compulsive texting called the Compulsive Texting Scale. They indicated that addiction to texting cannot be determined solely by frequency or the amount of time spent texting, but rather by feelings and behaviors, including being unable to cut back on the frequency of texting, defensiveness, and the feeling of frustration when unable to text. They hypothesized a significant positive relation between frequency of texting and compulsive texting, a higher frequency of texting by females, and a correlation of compulsive texting with poorer grades, less school bonding, and lower perceptions of academic proficiency. The study included over 400 students in grades 8 and 11. The students were asked about the frequency of their texting and were administered the internet Addiction Test (IAT), a 20item scale modified for use in evaluating internet addiction. The students were also presented with a 5-point scale to determine their perceived academic competence. The results indicated that compulsive texting had a negative relationship with academic functioning for females, but not for males. There was no significant relationship between school bonding and compulsive texting. Sending hurtful text messages is a frequently employed method of cyberbullying that results in extensive damage to the recipient. Clearly, while texting can be an effective mode of communication, it can be misused with negative consequences. An examination of the characteristics of cyberbullying may enhance understanding of this undesirable behavior.

Characteristics of Cyberbullying

While it may be difficult to develop a precise definition of cyberbullying that is universally accepted, the characteristics of cyberbullying are easy to identify. Most definitions include attributes such as information and communication technology (ICT) competence, aggression, repetition, intent to harm, and a power imbalance. Other characteristics that have been identified include direct (one-on-one) communication, such as e-mail, text messages and phone calls, and indirect communication whereby the aggressor posts embarrassing and harassing material on a public site, such as a blog, and can do so anonymously (Peter, & Petermann, 2018). It has been suggested that the general aggression model can provide insight into cyberbullying because it includes intention and a desire to inflict harm via hurtful messages about others (Livazović, & Ham, 2019); Savage, & Tokunaga, 2017). Yet another theory of cyberbullying is the general strain theory that suggests strain, such as anger and tension, can incite aberrant behavior, including criminal activities (Paez, 2018; Lianos, & McGrath, 2018). It is believed that low *cognitive empathy*, narcissism and exploitativeness are risk factors and that lower academic achievement, younger males whose mothers are less educated, and lower satisfaction with family, peers, and schools are indicative of a cyberbully (Livazović, & Ham, 2019). A meta-analysis found that cyberbullies scored low on empathy, both affective empathy, that is, understanding the emotions of others, and

cognitive empathy, that is, feeling the same emotions (Zych et al., 2019). One of the most significant characteristics of cyberbullying is how it has become a problem worldwide.

Worldwide Phenomenon

Many nations have been affected by cyberbullying and this has resulted in considerable research on the topic worldwide. This is ample testimony to the fact that bullying, and cyberbullying are the result of basic human traits, such as the desire to intimidate and exert power over others.

Spain

Spain has seen the emergence of cybergossip in primary school-aged children and researchers such as López-Pradas et al. (2018), have identified a significant relation between cybergossip and cyberbullying. In their study, they sought to validate the *Cybergossip Questionnaire-Primary* scale (designed for children ages 10 – 12), to determine the frequency of cybergossip among adolescents, and to explore potential differences by country (participants were from Columbia and Spain) and gender. The questionnaire consisted of 22 Likert-type questions of which 11 were related to cybervictimization and 11 to cyberaggression. The results indicated that cybergossip took place more frequently among the Spanish participants than those from Columbia, perhaps due to a different culture and more limited use of information and communication technology (ICT). Overall, however, the study revealed that when young people gossip using ICT, gossip is cross-cultural. There were no differences were found between girls and boys.
Germany

In Germany, Brailovskaia et al., 2018 were engaged in a study to investigate the effect of positive mental health in reducing the impact of cyberbullying on suicide ideation/behavior. They collected data from 225 university students via an online survey. They measured emotional and psychological health with the *Positive Mental Health-Scale*, suicidal/ideation and behavior with the *Suicidal Behaviors Questionnaire*, and a single question about cyberbullying experiences. The results of this study revealed that cyberbullying had a positive correlation with suicide ideation/behavior, but that it was mediated by positive mental health.

Croatia

In Croatia, a study was conducted to determine the impact of social media on its youth. Researchers Šincek et al. (2017 were trying to determine the frequency of cyberviolence, the role of gender in cyber-violence, the number of devices used by victims, offenders, and those who were both perpetrators and victims. Also, they wanted to see if there were different psychological outcomes, for example, anxiety and depression, and whether there were differences in how the internet was used. Šincek et al. used several measurement tools, including the *Depression Anxiety Stress Scales*, the *Rosenberg Self-esteem Scale*, and the *Committing and Experiencing Cyberviolence Scale*. The results indicated that the youngest participants were the least involved in cyber-violence, also that more female than male participants were not involved in cyber-violence. In addition, there were slightly more female victims, and that those involved in cyber-violence had lower grades. Perpetrators/victims suffered the most from depression. anxiety, and lower self-esteem.

Romania

In Romania, researchers Timar and Vlaicu (2018) directed a random study of 140 high school students to identify whether there was a relationship between online aggression and victim empathy in cyberbullying. They developed an online questionnaire to collect descriptive data, perceptions about cyberbullying and school safety, motivation of bystanders, parental support, and self-efficacy. They found that the relationship between online aggressive tendencies and victim empathy is curvilinear, that is, as aggressive inclinations increase, empathy also increases, but only up to a certain point, after which as aggressive tendencies increase, empathy decreases. Thus, greater, or lesser empathy towards a cyberbullying victim is associated with online aggressive propensities, whereas empathy in the mid-range is associated with non-aggressive tendencies.

Southeast Asia

In Southeast Asia, a systematic literature review of cyberbullying in several countries was conducted. These countries included Thailand, the Philippines, Indonesia, and Malaysia. The results indicated that students were more likely to tell their friends about cyberbullying, rather than their parents or teachers. Also, the study revealed that cyberbullying was a more frequent occurrence in private, versus public, schools. The results from Thailand revealed that nearly 60% of participants had experienced cyberbullying on a monthly or more frequent basis, but it was also determined that in

Thailand, attitudes towards cyberbullying were not as negative as elsewhere. The information about Indonesia revealed that both genders are harmed by cyberbullying and that the youth who were victims and perpetrators of cyberbullying were at greater risk to engage in consuming alcohol, smoking and self-injury. In a Malaysian study of college students, it was found that while cyberbullying still exists, it begins to decline as students become older (Ruangnapakul et al., 2019).

Worldwide Research Efforts

Espelage and Hong (2016) conducted a study of cyberbullying in a meta-analysis of worldwide research efforts related to cyberbullying. This included research websites, such as http://www.stopbullying.gov, educators' knowledge and perceptions of cyberbullying, the effects of cyberbullying on victims, and school-based cyberbullying prevention and intervention programs. The latter was provided via a brief listing and description of programs such as the US-developed *i-SAFE* curriculum which was developed by a non-profit foundation founded in 1988 to help children comprehend internet safety. This program was evaluated in a report developed by Chibnall et al. (2006) with funding provided by the Department of Justice. Other programs they cited included *The Missing Program* (a Canadian computer game), and *Media Heroes*, a German school-based program designed to increase student knowledge of the risks presented by technology, produce increased empathy, and teach ways to protect oneself from cyberbullying. The authors also mentioned *ConRed*, a school-based program developed in Spain and the *KiVa* program, developed in Finland.

It is clear from the number of anticyberbullying programs throughout the world that cyberbullying is truly international. In addition to its global aspect, cyberbullying is usually the domain of the younger segment of the population.

Victims are Young and Vulnerable

While adults can engage in cyberbullying, it is predominately an activity of children and adolescents, and occasionally, young adults. What is surprising is just how young some children are when first introduced to electronic media. Traditionally, parents have tried to calm or distract very young children with a variety of items, such as toys and books, but now, they are also using mobile media for children under the age of two years. The mobile media is used as a coping mechanism to help parents care for more difficult infants (Levine et al., 2019). Thus, cyberbullying victims are being exposed to media and possibly cyberbullying activities at earlier ages.

The relative ease with which young people can use social media renders them especially vulnerable because they may not understand situations that involve deception and are thus are more likely to be victimized or exploited. Children have a need for relationships, and any slight from a peer or a teacher, or rejection by the opposite sex, can trigger profound emotional distress (Pilaghia, 2019). An important characteristic of adolescents' use of social media is that it takes place during the same period when they are developing a sense of identity, and they are maturing in a number of areas, including sexually, physically, and ethically (Eleuteri et al., 2017).

Persons with developmental disabilities or social-cognitive difficulties are even at greater risk. It is thought that social vulnerability declines as children grow older, perhaps

because children become better able to evaluate information and have gained social exposure as they progress through the years (Seward et al., 2018). Young people from lower socioeconomic backgrounds may have difficult home conditions and poor family relationships resulting in reduced ability to develop and sustain good peer relationships (Ronis, & Slaunwhite, 2019). It is also likely that young persons who have multiple identifying characteristics, for example, autism and ethnic minority, are even more likely to be victimized by cyberbullies. Perhaps those who experience the most severe bullying, including cyberbullying, are the lesbian, gay, bisexual, transgender, and queer (LGBTQ) youth. This has been called stigma-based or bias-based bullying (Earnshaw et al., 2017). LGBTQ teens are nearly twice as likely to be bullying victims compared with other students, three times as likely to experience online harassment, and twice as likely to be the recipients of messages that threaten or harass (Waldman, 2018).

In addition, it is generally thought that girls are more likely to be victimized by cyberbullying. This may be due to their inclination to conduct indirect bullying, such as gossip, rather than the more typical approach of males to hit one another. It is also possible that males do not report victimization for fear of appearing less masculine (Alhajji et al., 2019). Lastly, it has been determined that multiracial females and black and multiracial males are significantly more likely to become victims of cyberbullying (Patchin, 2019). In addition, young people are cyberbullied because of their appearance especially if they are overweight or obese (Waasdorp et al., 2018). Nevertheless, the reasons for children and adolescents to engage in cyberbullying need to be determined and understood.

Reasons for Cyberbullying

Reasons have been proposed for the practice of cyberbullying, including anonymity, revenge, power, peer pressure, and sadism (it is considered "fun"; Fluck, 2017). As research into cyberbullying continues, new explanations have been offered. One of these is exposure to media violence, such as violent online gaming. The general aggression model, a social-cognitive model of aggression, asserts that continued exposure to media violence can lead to the development of aggressive scripts, schemas, and attitudes, as well as desensitization to violence (Gentile at al., 2010). In the Encyclopedia of Children, Adolescents, and the Media, schemas and scripts have been cited as causal explanations of how contact with media violence is related to aggression (Krcmar, 2007). Young people are profoundly affected by their peers, as they begin to migrate from their parents' influence to that of individuals the same age. Early adolescence is a time when young people are in transition mode and are eager to establish their social status, sometimes using aggression to guide their interactions. What is most important is to gain the approval of their peers even at the expense of causing harm to others (Farrell et al., 2017). This can lead to inappropriate use of social media.

Bullying and cyberbullying are serious threats to the well-being of young people across the globe. While there is not yet a standard definition of cyberbullying, its characteristics render it easy to detect. Cyberbullying consists of intentional, repeated acts of sending aggressive or harmful messages online to a victim with the intent to harass, ridicule or mistreat the recipient (Truell et al., 2019). In July 2019, the National Center for Education Statistics (NCES) stated that 20% of students between the ages of 12 and 18 were bullied during the 2016-2017 school year (NCES Blog Editor, 2019). The Centers for Disease Control and Prevention (CDC) confirmed that all forms of bullying, including cyberbullying, can result in severe emotional distress and even suicide attempts, some of which succeed. In addition, the depression, anxiety, and constant fear of cyberbullied youth often lead to avoiding school and poor academic performance (Centers for Disease Control and Prevention, 2014).

Consequences of Cyberbullying

Cyberbullying is not without harmful consequences, some of which can be devastating for its victims. These consequences can impact the victim's mental health and in extreme cases, lead to suicide (Asam, & Samara, 2016). The CDC describe cyberbullying as a public health problem. In an article about teen cyberbullying the author stated that cyberbullying is responsible for reduced school attendance, the use of drugs and alcohol, and declining grades alcohol use, drug use, and grades (Holden, 2017).

There have been several teenage suicides triggered by victimization by cyberbullying that have captured national and international interest. These include the deaths of Megan Meier, Phoebe Connop, Ryan Halligan, Amanda Todd, and Katlin Loux (Briggs, 2018). Megan Meier suffered from Attention Deficit Hyperactivity Disorder (ADHD), depression, and weight issues (NOWCOMMENT, 2015). The result of her suicide was the passage of the Megan Meier Cyberbullying Prevention Act (Congress.Gov, 2009). Phoebe Connop took a photo of herself with darkened skin and a veil (to emulate the appearance she believed was desired by her Asian boyfriend's parents) and was afraid to be labelled as a racist. She took her life shortly thereafter. Ryan Halligan, a 12-year-old who had issues with language and motor skills, committed suicide after a girl pretended to like him, then shared their communications with her friends (NOWCOMMENT, 2015). Amanda Todd hanged herself after revealing photos were posted to a Facebook page which the cyberbully had created in her name (NOWCOMMENT, 2015). Loux killed herself after 2 years of unabated online teasing (KSLA News12, 2013).

Since cyberbullies can access the internet anytime and anyplace, some victims find themselves in a state of constant fear. The victims may experience long-term emotional scars from cyberbullying (Miller, 2017). In addition, they are more likely to experience psychological problems, such as depression and anxiety, as well as physical effects, including headaches, eating disorders, and even bed wetting (Rao et al., 2018). Victims may also have an increased risk of using substances and participating in unsafe sexual practices (Mishna et al., 2016). A study of youth in Croatia revealed that cyberbullying victims experience anxiety, stress, depression, a loss of self-esteem, fear, sadness, and lower academic achievement (Šincek et al., 2017). These consequences are not unique to Croatia. It has been reported that high school students who experience cyberbullying are very likely to report suicidal ideation and even more likely to report a suicide attempt. In a 2019 study of U.S. youth whose ages ranged from 12 to 17 (inclusive), it was stated that cyberbullying victimization produced increased anger, selfpity, eating disorders, and chronic illness. In the article that described this study, the authors asserted that cyberbullying victims were 1.9 times more likely, and offenders were 1.5 times more likely to have attempted suicide than those not involved in

cyberbullying (Hinduja, & Patchin, 2019). In another study, the author explored how cyberbullying affects a person's decision to commit suicide. He asserted that cyberbullied students are very likely to report suicidal ideation and suicide attempts. Unlike other researchers, he added a unique perspective to his analysis, that is, he considered the social and economic properties of suicidal behavior and employed the model of net present discounted value of living. This model suggests that the lower the expected income, the greater the likelihood of suicide (Nikolaou, 2017). In an article published in 2017, the author stated that victims of bullying were more likely to carry weapons to school (Pham et al., 2017). In yet another study, it was affirmed that pre-adolescents who confront cyberbullying are not emotionally prepared for this type of aggression and lack the ability to develop assertive communication techniques to manage their emotions, effectively advance their ideas, and conduct themselves appropriately. Thus, they experience stronger anxiety, depression, and suicidal ideation, as compared with other persons of the same age (Manzuoli, & Medina, 2017, Lianos, & McGrath, 2018). These symptoms are manifested in young people worldwide, including the state of Texas.

Researchers have suggested that two factors associated with suicide are the sense of being burdensome and frustrated belongingness (Chu et al., 2017; Twenge et al., 2018). Social Network Sites (SNS), such as Facebook, have been associated with increases in suicide risks and behaviors. On occasion, the association between social media and suicidal ideation may be powerful enough to result in suicide attempts. If a young person who is depressed and suffering from suicidal thoughts sees on a Web site that someone has committed suicide, he/she may become motivated to proceed with his/her own suicide. This phenomenon is called the "Werther effect" (Popoola et al., 2020).

The social media site that has been identified as the most commonly used for cyberbullying is Facebook. Ophir et al. (2019) discussed Facebook use and practices among Israeli adolescents. They conducted a study to investigate whether and how data in social network sites could be used as a device to gauge adolescent psychological distress. The authors discussed digital footprints (information unknowingly left behind by internet users, such as sites visited and personal information) which may include references to distressing experiences, perhaps to gain support from friends and acquaintances. They spoke of adolescent distress related to social rejection and bullying victimization. They conducted two studies. In the first study, adolescents were asked to download data from their Facebook activity log. This confirmed the hypothesis that adolescents who explicitly mention distress have higher levels of depression. In the second study, Ophir and his colleagues found less explicit Facebook activity that forecast social rejection and bullying victimization. Thus, Study 2 demonstrated how social rejection and victimization may be communicated in more subtle Facebook behaviors. The authors concluded that adolescents rarely post explicit indications of distress but when they do, they generally refer to symptoms of depression and experiences of social rejection and bullying. There may be a correlation between young persons' risky online activities and how much time is spent online. In addition, the frequency of risky internet use (for example, providing personal information) can be related to both the perpetrator and the victim of cyberbullying (Chen et al., 2017).

Easy access to technology and the amount of time spent online have a direct impact on the potential for cyberbullying (Barlett et al., 2019). Cyberbullies are thought to be morally disengaged (Meter, & Bauman, 2018) and lack emotional empathy which is exacerbated by the fact there is no face-to-face interaction with the victim. Studies on the motives for cyberbullying reveal that it is performed "for fun" even though others are humiliated and experience emotional pain (Kyriacou, & Zuin, 2016). Cyberbullying is considered a form of violence. Among potential risk factors are lack of empathy, the need for power and control, deficits in regulating emotions, substance use, belief that aggression is acceptable, and exposure to family violence (Manzuoli, & Medina, 2017). Those who have been cyberbullying victims are more likely to become cyberbullies. Victims of cyberbullying indicate they were teased by their peers about their physical appearance via social media and electronic messaging. This tends to aggravate any existing self-esteem issues (Salazar, 2017). It has also been stated that parents do not understand or have knowledge of the cyberbullying activities in which their children may be engaged, as perpetrators or as victims. In addition, they are uninformed about the potential outcomes of cyberbullying activities. Lastly, parents do not have enough control over their children's online activities and the potential for cyberbullying (Atatah et al., 2017).

Given that young people tend to be impulsive and engage in high-risk activities (Cohen-Almagor, 2018), there are two forms of parental control, restriction, and supervision, that have been seen as effective in preventing children from becoming cyber-victims. Parental control should be practiced in an environment of affection and

communication (Elsaessera et al., 2018; Alvarez-Garcia et al., 2019). In fact, weak bonds with parents, stronger discipline by parents, and infrequent parental monitoring of online activities have been associated with young people who cyberbully. In addition, cyberbullies may be introverted or underachievers (Livazović, & Ham, 2019). Regardless of why young people engage in cyberbullying, there are frequently serious consequences of this form of misbehavior.

Texas Incidents of Cyberbullying

In the state of Texas, there have been dire consequences of cyberbullying. In 2014, Viviana Aguirre, a student at an El Paso high school was harassed on Facebook by four other girls. She responded by hanging herself (Hammer, 2017). In November 2016, a Houston-area high school student named Brandy Vela shot herself to death after having been bullied about her weight in text messages created by an untraceable smartphone application and a phony Facebook page (CBS News, 2016). In January 2016, David, Molak, a 16-year-old Alamo Heights High School student committed suicide after months of enduring mocking and physical threats (Collins et al., 2017). His death led to the 2017 passage of Senate Bill 179, David's Law (Ward, 2017). Another young Texan, Matthew Vasquez, who suffered from leukemia, survived the taunting of others who suggested he end his life, but fortunately, he is now in remission (Nichols, 2016). In 2019, Nicole Pfister, a 14-year-old girl from Laredo, Texas, was subjected to considerable cyberbullying on the Facebook page established by her parents after a diagnosis of a severe form of leukemia. School officials have responded by speaking with the students and punishing those who participated in taunting the girl. Fortunately, many

students choose to support her (abcNEWS, 2019). Another 14-year-old girl, Ella Morrow, shared her passion for acting on Instagram and in response, she was subjected to bullying. This started when she was in the fourth grade and continued for years. In response, she changed schools in the sixth grade. She felt that the teachers and administrators of her former school could have done something to help, but did not (Autler, 2019). Perhaps relief from the problem of cyberbullying can be obtained via legislation enacted by the federal government or on a state-wide level.

Federal Government, Public Policy, and School Safety

The federal government has demonstrated concern over school safety, including cyberbullying. In the book *Preventing Bullying Through Science, Policy, and Practice,* there is an article in which the author asserts that both law and policy can be applied to the prevention of inappropriate behaviors, as well as providing support for appropriate conduct (Rivara & Le Menestrel (Eds.), 2016).

While there is no single federal law that addresses cyberbullying in all its forms, federal law and policy have furnished a framework for responding to bullying, including cyberbullying. Federal law has provided protections for certain individuals, for example, on the basis of sex, age, race, disability, and religion, while federal agency guidelines have offered recommendations to states and local jurisdictions on how to respond to bullying. The U.S. Department of Education Office of Civil Rights, 2010b declared that schools have a legal responsibility for providing for the safety of their students such that they can acquire an education and have access to services and opportunities available in the school environment. Further, schools are responsible for addressing harassment that is known by administrators and teachers and take immediate action to address the harassment.

During FY2014 (October 1, 2013 through September 30, 2014), Congress instituted the Comprehensive School Safety Initiative, a discretionary grant program administered by the National Institute of Justice, to find and comprehend the possible causes and outcomes of school violence, its effect on school safety, and to generate best practices for school safety. This information was contained in a report about school safety policies and programs produced by National Criminal Justice Reference Service. In this report, it was stated that most of the schools in the United States did not have allinclusive, effective supports to deal with the problems confronting young people, including bullying (Brock et al. Kriger, 2017). In an article about student perceptions of school safety, it was asserted that prior victimization, including bullying, explains why fear of crime in school persists as a problem (Connell, 2016).

In another article about whether antibullying laws work, the authors cited that state laws that require school districts to implement strong, all-inclusive antibullying policies have produced an 8 to 12% reduction in bullying (Sabia, & Bass, 2017).

The Office of Justice Programs issued a "Model Programs I-Guide" in which there was an article about school-based bullying prevention. The article identified four frameworks for understanding bullying: 1) an ethological perspective which includes benefits from bullying, for example, gaining social dominance, 2) an ecological and socioecological perspective that consider how people interact with their environment, 3) cognitive and social-cognitive theories, including emotional and antisocial disorders and impulse control, and 4) genetic and biologic theories that consider the role of genetics and biology, for example, hormonal levels associated with aggression (National Institute of Justice, n.d.). Bullying is one of many factors that should be considered when implementing safe school programs that focus on prevention, intervention, and enforcement (Trump, n.d.).

It is possible that legislation on the federal level may serve to reduce the incidence and severity of bullying, including cyberbullying.

Federal Cyberbullying Legislation

Given the serious repercussions of cyberbullying, it is unfortunate that the federal government has not enacted specific legislation to deal with this problem. Presently, there is no federal law that directly prohibits cyberbullying in all its forms. While a law was proposed in 2009, it did not survive the approval journey through Congress. However, there have been several pieces of legislation which are related to the problem of bullying. For example, 47 U.S.C. §223 of 1934 banned the use of telecommunications devices to harass another person (FCC, 934). In 1998, 18 U.S.C. §2425 criminalized the transmission of information about a person younger than 16 years of age for sexual purposes and 18 U.S.C. §875(c) in 2012 prohibited any threat to kidnap or injure another person (Miller, 2017). In 1999, the Children's Internet Protection Act (CIPA) was passed by Congress. It addressed children's access to indecent or dangerous internet content and placed requirements (withdrawal of funding) on schools or libraries to implement a safety policy addressing access by minors to unacceptable internet material, direct electronic communication such as e-mail, hacking (unauthorized access), sharing personal

information and in general, limiting the access by minors to damaging materials (Senate Committee on Commerce, Science, and Transportation, 1999). The Readiness and Emergency Management for Schools (REMS) Technical Assistance (TA) center published "Cyber safety for schools fact sheet" in which the implementation of policies and procedures to support student online safety was encouraged. Responsible use policies (RUP) can inform students of acceptable online behaviors, for example, filtering and blocking software in school to prevent students from viewing inappropriate content (Readiness and Emergency Management (REMS) for School Technical Assistance (TA) Center, n.d.).

In 2014, the United States Education Department's Office for Civil Rights (OCR) issued a "Dear Colleague" letter in which it stated that while some student misconduct may be in violation of school antibullying policy, it may also violate federal antidiscrimination law enforced by the OCR. Specifically, the letter indicates that bullying based on factors such as race, national origin, sex, or disability which are basic civil rights can be so severe as to create a hostile environment and must not be accepted by any school (United States Department Of Education Office for Civil Rights, 2010). In 2014, the OCR issued another "Dear Colleague" letter that addressed the bullying of students with disabilities. The letter indicated that the OCR enforces Section 504 and Title II, which both prohibit discrimination based on disability. In addition, in the U.S. Department of Education (DOE) (2014) issued the "Guiding principles: Directory of federal school climate and discipline resources" to assist with the development of positive school climates, and effective discipline policies and practices. In this guide, the DOE

established three fundamental principles: 1) climate and prevention, 2) unambiguous, correct, and consistent expectations and results, and 3) impartiality and ongoing improvement. In a National Criminal Justice Reference Service an article about school safety, it was stated that between 2001 and 2017, there was a decrease in the percentage of students ages 12-18 who reported victimization in the previous six months. Also, it was stated in the report that in 2017, about 20% of U.S. students in the age range of 12-18 reported having been being bullied at school and of these reported victims, there were more girls than boys (National Criminal Justice Reference Service, n. d.).

In 2018, U.S. Secretary of Education Betsy DeVos was chosen to lead the Federal Commission on School Safety, which was tasked to issue recommendations for school safety, including social emotional support consistent with the theory of authoritative school climate (U. S. Department of Education, 2018). In 2019, the U.S. Department of Education issued a notice entitled the "School Climate Transformation Grant Program -Local Educational Agency Grants", wherein it announced competitive grants to local education agencies to implement multi-tiered systems of support (MTSS) to improve school climate. In the notice, it was stated that students confronted with bullying usually give a lower rate to their schools' climate (U.S. Department of Education, 2019). It is clear that the federal government, in particular the Department of Education, has taken the problem of cyberbullying seriously. It remains to be seen whether the states followed suit.

State Cyberbullying Legislation

In 2010, the Department of Education identified 16 components that should be part of state antibullying laws. These include:

- clear statement of purpose and findings
- scope of schools' jurisdiction
- specific definition (of bullying)
- prohibition of bullying based on certain characteristics
- the requirement that local districts develop their own policies
- regular compliance reviews
- school definitions of bullying consistent with state law
- anonymous reporting procedures with protection against retaliation
- investigation protocols
- written record retention
- punishments for bullying
- mental health resources for victims
- procedures for communicating policies
- staff training
- transparent data reporting
- assurances that victims may seek legal remedies (Waldman, 2018).

All 16 of these guidelines were adhered to by only nine of the 50 states. It is interesting to note that while all states (except Alaska, Kentucky, and Wisconsin) prohibit cyberbullying or online harassment in their specification of prohibited conduct, explicit

reference to off-campus conduct that can be subject to punishment only appear in 19 of the state laws (Waldman, 2018). Overall, state laws fall short of protecting vulnerable groups, such as LGBTQ or overweight adolescents (Kahle, 2018). This question was identified as a key research gap in the 2016 National Academy of Sciences report on bullying (Hatzenbuehler et al., 2017).

There has been some progress in addressing bullying and cyberbullying on the state level. However, there is still much work to be done. While all 50 states and the District of Columbia have enacted legislation to address bullying and cyberbullying, it is difficult to say that these laws have succeeded. It was reported by J.W. Patchin, co-founder of the Cyberbullying Research Center, that in 2019, in a survey of 5,000 twelve to seventeen-year-olds, 17.4% of students reported being cyberbullying victims (an increase from 16.5% in 2016) and 6.3% said they were cyberbullying perpetrators (an increase from 5.6% in 2016 (Patchin, 2019). In a 2018 study of bullying performed by WalletHub, it was determined that the ten states with the most serious bullying and cyberbullying issues were: Louisiana, Arkansas, Missouri, Idaho, Alaska, North Dakota, Wisconsin, West Virginia, Michigan, and Wyoming, in that order. The scores were a composite of factors such as cost of truancy, prevalence of bullying, bullying impact and treatment, and antibullying laws (McCann, 2018).

As children are in school much of the time, it has been suggested by researchers, educators, legislators, and parents that the primary environment in which to combat cyberbullying is the school. While most, if not all, state bullying and cyberbullying laws focus on the school, they sometimes omit out of school cyberbullying which can adversely impacts students. Districts may fail to comply with state bullying and cyberbullying laws due to funding issues or the absence of state oversight (Sumrall, 2016). State laws generally mandate or urge schools to develop policy, institute programs, and report acts of bullying and cyberbullying to the appropriate authorities (Asam, & Samara, 2016). It is problematic that there is little conformity among state laws. Some state laws require school districts to develop a bullying policy and procedures to investigate reported incidents of bullying, including cyberbullying, and some states also mandate prevention programs.

State legislation must have a direct impact on the actions performed by school districts if they are to be effective at reducing bullying and cyberbullying. If the law does not require specific action, the consequence is likely to be unrestricted and unmanageable bullying, including cyberbullying. It is believed that adopting bullying and cyberbullying laws has a positive relationship to the probability of reporting incidents where students are victimized and that imposing penalties for the victimizer (cyberbully) will serve to encourage reporting (Dasgupta, 2019). In late 2018, Hinduja and Patchin of the Cyberbullying Research Center released information that consists of the characteristics of state bullying and cyberbullying laws, including Washington, D.C. They identified five elements that they considered important. For each state, they determined whether the law: 1) includes cyberbullying or electronic harassment, 2) imposes criminal sanction for these activities, 3) imposes school sanctions, 4) requires school policy, and 5) includes off campus behaviors. It was found that forty-eight of the fifty states include cyberbullying or electronic harassment in their laws; the exceptions were Alaska and Wisconsin. The

laws of six states and Washington D.C. do not have criminal sanctions for cyberbullying or harassment. These states are Alabama, Minnesota, Nebraska, New Mexico, and Wyoming. Five states, Alabama, Michigan, Nevada, Montana, and New Hampshire do not have school sanctions for cyberbullying. Montana is the only state that does not require school policy. Lastly, only 19 of the states include off-campus behavior: Arkansas, California, Connecticut, Florida, Illinois, Louisiana, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Southern Carolina, South Dakota, Tennessee, Texas, Vermont, and Washington, D.C. (Hinduja, & Patchen, 2018).

State responses to the problem of bullying, including cyberbullying, have been subject to criticism. One of the reasons for this is that they are viewed as not having done enough to address bullying and cyberbullying that takes place off school property and unfortunately, much of the bullying and cyberbullying occurs outside of school. Another criticism is that state laws do not aim at the content itself due to concerns of violating First Amendment rights of free speech (O'Shea, 2017). Lastly, since state laws vary from one another, there is no consistency, and what is permitted in one state may not be permitted in another. In Texas, various pieces of legislation were passed, culminating in the 2017 passage of David's Law.

Texas Cyberbullying Legislation

The Texas Education Code, section 37.0832, was established in 2011. It addresses bullying prevention policies and procedures. It provides a definition of bullying and specifies that it can take place on school property, at school-sponsored or school-related events, or in vehicles maintained by the school district. Such behavior includes actions that can physically harm a student, damage a student's property, or place a student in fear. The statute further states that such behavior interferes with a student's education or creates a substantial disruption to a school's operation (Spoede, & Spoede, 2018). The Texas Education Code, Sec. 37.0052 "Placement or Expulsion of Students Who Have Engaged in Certain Bullying Behavior", states that a student who engages in bullying that encourages another student to commit or attempt suicide, instigates violence against a student by group bullying, or circulates or threatens to circulate intimate images of a minor or a student who is 18-years-old or older, without the minor's or student's consent, can be subject to removal from class, assignment to a disciplinary alternative education program or expelled (Texas Education Code Sec. 37.0052, 2017).

In 2017, Texas took on a leadership role in addressing cybersecurity and data privacy issues. The Texas Cybersecurity Council was established, House Bill 2087---Student Data Privacy Act which provided strong privacy protections for student data within Texas public schools, by prohibiting the sale or rental of any student's data, targeted advertising to students, and the use of a student's data to build a profile for any reason other than an educational objective. Texas House Bill 3593, the Cybersecurity Education Act, passed in 2017, mandates the State Board of Education to allow public school districts to offer cybersecurity courses to gain credits towards high school graduation (Rogers, 2018).

Texas has made progress but there is still more work to be done. At least 28 states mandate that schools report the number of bullying incidents to their top education

agency, but Texas does not yet do this. In fact, there is no requirement that the Texas Education Agency (TEA) collect this data. A bill (SB 1178) specified that districts were required to render an annual report of the number of bullying and cyberbullying incidents through the Public Education Information Management System. Unfortunately, this bill did not make it through the legislature (Autler, 2019). However, another bill, David's Law, successfully made the journey through Congress.

David's Law

Senate Bill 179, known as David's Law, was passed in September 2017. After several reported instances of self-harm and suicides resulting from cyberbullying, including the suicide of David Molak, a Texas teenager, public sentiment was strongly in favor of antibullying legislation. The result was David's Law passed by Governor Abbott, as an amendment to Section 37.0832 of the Texas Education Code. It is focused on actions that harass, bully, and cyberbully students. In addition, in instances where injury or death occurs, it criminalizes the behavior. David's Law defines bullying and cyberbullying as one or more acts that exploit an imbalance of power. The act(s) is/are so serious, ongoing, and pervasive that the school's learning environment is characterized by intimidation, vulnerability and abuse. This causes substantial disruption of the educational process and maintenance of an orderly classroom and impacts student rights.

Cyberbullying is defined as bullying that is conducted via electronic media over the internet. The effect of cyberbullying can be physical harm, damage to mental health, or property damage, as well as fear of harm to the person or property. David's Law requires that school districts implement a procedure to notify parents or guardians of bullied students by the third business day after the event has been reported, as well as notification of parents or guardians of the alleged perpetrator within a reasonable period after the incident. This law also requires school districts to establish procedures for students to anonymously report incidents of bullying and cyberbullying. The bullying can take place on school property or at the location of a school-sponsored/related event off campus, as well as on a school bus or van used for transporting students to or from school, or school-sponsored/related activities. In addition, actions are considered cyberbullying when they take place outside of school or school-sponsored/related activity, when they interfere with a student's educational opportunities, or create a substantial disruption of the classroom, school, or activity. Before the passage of David's Law, Texas schools were virtually powerless to respond to cyberbullying created on social media platforms off-campus (Lee, 2016).)

Every Texas school district must adopt a policy, including procedures, relative to bullying as follows: bullying and cyberbullying are prohibited, as well as retaliation against someone who reports an incident in good faith. In addition to notification of the parent or guardian of both the victim and the bully, there should be defined actions that a student can take to seek assistance, including counseling. It also prohibits punishment of a bullied student who acted in self-defense and mandates that discipline of students with disabilities be consistent with federal law, such as the Individuals with Disabilities Education Act. The policy and procedures must be posted and included in handbooks and the district's improvement plan. Lastly, students may be removed from the school, assigned to a school with a disciplinary alternative program, or expelled, if they encourage a minor to commit/attempt to commit suicide, engage in group bulling that leads to violence, or make threats to distribute intimate images of a minor (Zaffirini, 2017).

In addition, David's Law states that a school may, but is not legally required to report behavior such as assault or harassment to the police. It also provides for punishment as follows: cyberbullying is classified as a Class B misdemeanor, but becomes a Class A misdemeanor, if the offender has a previous conviction for bullying or cyberbullying, or if victim was under 18 years-old and the offender intended that the victim commit suicide or self-inflict a serious injury. Also, the perpetrator can be subject to administrative sanctions, for example, expulsion (Texas Association of School Boards, 2018; Varghese, 2017).

The theory of authoritative school climate seems to be an underlying concept as applied to David's Law, since the latter promotes both disciplinary structure and student support. This theory is an approach to discipline that is characterized by strong structure and support, that is, the discipline is strict, but impartial and consistent, such that students are aware of what is expected of them, as well as the consequences of non-compliance (Fisher et al., 2018). A benefit of the authoritative school climate is a reduction in absenteeism because there is a relationship between school climate and missing school. Without the authoritative school climate, young people tend to skip more classes because the school has little inclination to react to their individual needs and there is little structure or opportunity to be academically challenged (Keppens & Spruyt, 2019). Consistent with this theory is the insight generated by research that structured rules in school and positive teacher-student interaction can mitigate the risks of bullying, including cyberbullying. However, practices for physical school security, such as metal detectors, surveillance, and security officers, have not been seen to affect bullying and cyberbullying victimization (Choi et al., 2019). Over the years, several programs have been developed that are designed to counteract bullying, including cyberbullying.

State Support for David's Law

While this study sought answers about school district compliance with David's Law, it is worth noting at this point that while state education departments have experienced an expansion of their roles to include monitoring compliance with state and federal laws and regulations (Roe et al., n.d.), the Texas Education Agency web site made no mention of implementing antibullying policies and procedures. While the Texas Government Code, §2001.039, publishes a review of state agency rules every four years, the most recent of which is the 2017-2021 Rule Review Plan for State Board of *Education Rules*, there was no mention of David's Law or bullying/cyberbullying (Texas Education Agency, n.d.). The Texas Education Agency had authorization from the Texas Education Code to monitor compliance with requirements of a process or program when funding was involved and the related use of funds (Texas Education Agency, n.d.). The closest that can be considered enforcement of behavioral rules in Texas public schools is that the Education Code specified that the board of trustees of independent school districts must establish a student code of conduct and post it prominently on campus or make it available for review at the principal's office. It further specified that a biennial report be issued by the governor, legislature, and the State Board of Education, with any

findings relative to school safety and security (Education Code, n.d.). However, once again, bullying, including cyberbullying, and David's Law were not explicitly mentioned. Essentially, the law was passed and now, it has been up to the school districts to comply as well as possible, with no further action on the part of the state, not even to assure compliance.

The issue of compliance was further affected by the fact that Texas, like most states, has laws to address bullying and cyberbullying, but the mandate was unfunded. Thus, while David's Law was an attempt to provide safe schools, it was not covered by general education funding. Texas public school districts had been charged with additional tasks, but no additional funds had been allocated for these tasks (Rivara, & Le Menestrel, 2016).

It is possible that the lack of state support undermined implementation by the school districts. This may have made implementation and the positive social changes that could have resulted more difficult to achieve.

Cyberbullying Programs

Several programs to reduce bullying and cyberbullying have been reviewed by researchers. Identifying effective interventions is a serious pressing public health concern (Gaffney et al., 2019). Smith et al. (2019) asserted that while interventions used in schools may vary, they usually include raising awareness, the role of the bystander, and how to cope with bullying. It is generally the teachers who play a leading role in this context as they are most often the persons conducting the programs. In what Gaffney et al. (2019) described as a systematic and meta-analytical review of the effectiveness of anticyberbullying programs for school-aged children between the ages of four and eighteen, they determined that participants who received an anticyberbullying program were less likely to report participating in cyberbullying activities as compared to control participants who were not engaged in the program. They determined that school-based anticyberbullying programs reduced both cyberbullying perpetration (reduction of 9 - 15%) and victimization (reduction of 14 -15%).

The Olweus Bullying Prevention Program (OBPP) has possibly the greatest longevity, given that it was started by Dan Olweus, a Norwegian/Swedish researcher and psychologist in the years 1983 to 1985. The underlying philosophy of this program is that bullying is not just a health problem but also a serious violation of human rights, in this case, the right of children to feel safe at school. The principles of the OBPP specify that adults should demonstrate warm and positive interest in students, set firm behavioral limits, exercise consistency in consequences for appropriate behavior and non-hostile consequences for rule-breaking, and serve as both authorities and role models (Limber et al., 2018).

Another program is called "Not On My Watch" (NOMW) Bullying Prevention Program which consists of workshops to teach students social skills and provide examples of appropriate behaviors that can enable them to minimize peer-harassment and self-harm. The Program is based on materials from the National Education Association and includes videos, discussions, and role-playing. If there is repeated bullying, there is an email address that be used to request a reconciliation meeting, followed by notification of the parents. Since teachers are often charged with program implementation, it is interesting to note that they often cite a lack of support from their principals and even their colleagues, as well as from parents (Cunningham et al., 2016).

In 2003, a nonprofit organization developed the No Bully System to provide effective and long-term solutions for school bullying while maintaining cost. The program has qualities consistent with the authoritative school climate theory whereby it is non-punitive and consists of evidence-based interventions to generate youth and adult support systems. The goal is to end bullying and build a positive school climate. It consists of leadership and teacher instruction, as well as parent workshops (No Bully, n.d.).

A program that has been adopted in Texas in the Carrollton-Farmers Branch Independent School District (ISD) is the Anonymous Alerts' antibullying app to comply with David's Law. This app enables students and parents to submit alerts to school administrators or counselors anonymously via a suicide button added to the district's website (Blackburn, 2019).

Another program is STOMP Out Bullying which was established in 2005. This program is focused on the prevention and reduction of bullying and cyberbullying. It seeks to increase awareness of racism and discrimination against the LGBTQ community, as well as to decrease violence. STOMP Out Bullying provides peer mentoring programs, has a Help Chat Line, and is responsible for establishing World Day of Bullying Prevention which takes place the first Monday of every October (STOMP Out Bullying, n.d.). STOPit is another program that can help schools with cyberbullying issues. It provides an easy-to-use interface where at the press of a button, anonymous reports can be forwarded to school administrators who receive immediate notification. Items such photographs, videos, or screenshots can be attached to the report. If the administrator so desires, there is an escalation process embedded in the STOPit application that can engage law enforcement. There is also a call center and a 24-hour monitoring service for immediate dispatching of a report to law enforcement. According to the STOPit representatives, there are more than Texas 500 schools using the program, including the Comal Independent School District in Comal, Texas (PRNewswire, 2018).

Be Strong, a national nonprofit organization, employs a student-led method to counteract bullying and the risk of suicide. The philosophy is to encourage young people to take a stand against bullying by fostering change in peer behavior. Students are encouraged to share their problems and receive training to become more able to resist bullying. There is a real-time Be Strong App to facilitate locating helpful resources (Be Strong, n.d.).

There is also the website StopBullying.gov, managed by the U.S. Department of Health and Human Services, which was rejuvenated and introduced by Education Secretary Arne Duncan and Health and Human Services Secretary Kathleen Sebelius in 2012 (HOMEROOM, 2012). This website is maintained with the goal of providing up-todate information about bullying and cyberbullying and places emphasis on a safe school environment (Spoede, & Spoede, 2018). An insightful book, *End Peer Cruelty, Build Empathy*, identified six Rs of bullying prevention: Rules (antibullying policy and emphasis on respect), Recognize (incidents of bullying), Report (procedures to report incidents), Response (teach and empower students to stop incidents), and Replace (bullying behaviors with acceptable conduct; Borba, 2018). What is interesting about this approach to bullying is that it includes elements of what is required by David's Law.

Texas Regions to Be Surveyed

This study will acquire data from an online survey of public school administrators in Texas. There are 20 Education Service Centers (ESCs) which represent various regions of the state, including rural south Texas, southeast central Texas, southeast Texas, West Gulf Coast Plain, east Texas, northeast Texas, northwest Texas, north central Texas, rural west Texas, west central Texas, the Panhandle, west Texas, and south central Texas. A brief description of each of the regions follows, accompanied by accounts of bullying that have occurred in that region.

Central Texas

Central Texas is composed of seven of the 20 ESC regions, Southeast Central Texas (ESC Region 3 with 13 counties), Northcentral Texas (ESC Regions 10 and 11, with nine counties and ten counties, respectively), West-Central Texas (ESC Region 15 with 18 counties), and Southcentral Texas (ESC Region 20 with 20 counties). In total, Central Texas has 70 counties and each of these counties has one or more Independent School Districts (ISDs) or Consolidated School Districts (CISDs). Well-known cities in Central Texas include Austin (home of the University of Texas), and San Antonio. Household income in Central Texas is lower than the state average which may be due to the relatively younger population. The high school graduation rate is lower than the overall Texas rate. The U.S. Army at Fort Hood is in Central Texas, and there are several universities, including 2 branches of Texas A&M, Baylor University, and the University of Mary Hardin-Baylor (Comptroller, n.d.).

There have been several reported incidents of children and adolescents committing suicide because of bullying in Central Texas. In 2014, Peyton James, a 13year-old took his life after years of being bullied at school because of the appearance of his teeth. He had been born nine weeks premature and his permanent teeth became discolored because of treatment with oxygen and liquid nutrition. This and the fact that he wore glasses and was small for his age caused others to taunt him. Before David's Law was passed in 2017, an autistic teenager from this region suffered from bullying so severe, he had to change schools (Maciborski, 2016). In 2018, a 15-year-old girl, Ariella Costella, stated that she had been subjected to bullying for the past two 2 school years and admitted to suicidal ideation. In April 2019, a 13-year-old girl, Lainey Smith, shot herself after being unable to cope with in-school and social media bullying (Editorial Board, 2019).

North Texas

North Texas consists of Northeastern Texas (ESC Region 8 with 11 counties), Northwest Texas (ESC Region 9 with 12 counties), Northwestern Texas (ESC Region 16 with 26 counties), Northwest Texas/Panhandle (ESC Region 17 with 20 counties) for a total of 69 counties in all.

North Texas is known as a high-quality business environment, with many corporate headquarters and is the home of companies such as Facebook and Amazon. It is a very diversified area that is experiencing tremendous growth. There is, however, an increasing income gap between the advantaged and disadvantaged neighborhoods. This region a large professional workforce, including Information Technology, transportation, and logistics (Maguire, 2016). Notwithstanding unparalleled growth, more than half of the public school students in North Texas live in economically disadvantaged conditions.

North Texas has experienced its share of bullying, including cyberbullying. In 2015, Raymond Howell Jr., a 14-year-old, who had been relentlessly bullied, killed himself with a gun he borrowed from a friend. He had been beaten twice, once near his home and once at school. Both attacks were videoed and posted to the internet (dallasnews Administrator, 2015). Later in 2015, a 12-year-old girl, Jennifer Smith, from the same school district was taunted with cellphone messages that suggested that she was ugly and should kill herself. The culprits also posted messages to the child's mother's Instagram account. Because the cyberbullying was not on-campus behavior and First Amendment concerns, the school district took no action (dallasnews Administrator, 2015). In 2016, a 15-year-old girl, Natalie Natividad, responded to months of online and in-school bullying, by taking a lethal dose of pills (Ballor, 2016). In 2017, an 11-year-old, Julio Ortiz, who was a sixth grader, took his life by hanging himself in a closet. He told

his family that he had been bullied by others who wanted him to sell drugs (Skinner, 2017).

South Texas

This area of Texas consists of Rural South Texas (ESC Region 1 with eight counties), Southern Texas (ESC Region 2 with nine counties), Southeast Texas (ESC Region 4 with seven counties and ESC Region 5 with 27 counties), and Southeastern Texas/West Gulf Coastal Plain (ESC Region 6 with 15 counties), for a total of 66 counties. The Gulf Coast Region of Texas consists of 624 miles of coastline along the Gulf of Mexico (The Gulf Coast Region, 2013). With 580 people per square mile, it the most densely populated region in Texas, compared with the state average of 108 people per square mile. There is one metropolitan statistical area (MSA), the Houston-The Woodlands-Sugar Land MSA. This MSA includes nine of the region's counties. The center of economic activity is the city of Houston, the fourth-largest city in the nation. Houston accounts for approximately one-third of the region's population. The main industries are producing chemical and petroleum products, and pipeline transportation. The rate of graduation from high school is approximately 88.5 which is slightly lower than the overall Texas rate. There are ten universities, including the University of Houston and Rice University, as well as medical training facilities such as Baylor College of Medicine (Comptroller.Texas.Gov, n.d.). In the rest of the South Texas, household income is considerably lower than that of the state. The population is primarily Hispanic at 84% of the total population. The leading occupations are in the fields of public health, safety and education, and the processing of natural resources. The rate of high school

graduation matches that of the state. There are several institutions of higher learning in the South Texas Region, including Sul Ross State University, Rio Grande College, Texas A&M International University, three branches of Texas A&M University, and the University of Texas Rio Grande Valley. Well-known cities in South Texas are Houston, Galveston, Laredo, and Corpus Christi (Alvarado, 2018).

Schools in South Texas are ranked below the overall Texas level based on accountability ratings, which are annual academic ratings of school districts based on performance on standardized tests and graduation rates. School districts in South Texas include schools with a high number of economically disadvantaged students whose families have incomes below the poverty line. Students in South Texas score far lower than other Texas students on the Texas Assessment of Knowledge and Skills (TAKS), a Texas standardized test to determine student's knowledge and achievement at each grade level (Yang et al., 2015). Given the high percentage of Hispanic students with no or limited English-language proficiency, the costs to provide language education have placed a greater burden on South Texas than other regions of Texas (Perry, & Hawthorne, 2018). In a study of young Hispanic males who dropped out of school in a South Texas community, it was determined that these young men felt no connection to the curriculum and a lack of engagement in the classroom (Kent et al., 2017).

In 2015, a 12-year-old boy, Jesus Franco, had been bullied since the second grade. Classmates would engage in name calling on Facebook, mocking his appearance. In response, he stopped attending school for several months (Mato, 2015). In 2018, Maritza Tunchez stated that her sixth-grade granddaughter had been bullied repeatedly. She complained to school officials without success and eventually reported the bullying to the Corpus Christi ISD Police Department. In 2019, a father stated that his 14-year-old daughter, who had been subject to bullying the previous year, was attacked by three girls on the sidewalk outside her school. The incident was videotaped by the aggressors and subsequently posted on social media which led to considerable teasing. The father reported the attack to the school district and the police, but nothing was done (Dominguez, 2019). In December 2015, a 13-year-old Galveston girl, My'Kayla Hurst-Thomas, had been bullied by an older girl to the point that she opened the back door of the school bus she was riding on and fell out, leading to her death two days later. She suffered from Attention Deficit Hyperactivity Disorder (ADHD) and was bipolar. She had been subjected to harassment from multiple school mates (Wells, 2017). In 2019, Garret Bear, a sixth-grader, was provided a motorcycle escort to his school. He had been subject to bullying in school for some time and while his parents talked with school administrators, the bullying continued. A group called "Bikers Against Bullying" provided the volunteers for the escort to increase the boy's confidence and impress his schoolmates (Staff, 2019).

West Texas

West Texas is comprised of Rural West Texas (ESC Region 14 with 13 counties), West Texas (ESC Region 18 with 19 counties) and Western Texas (ESC Region 19 with 2 counties). With a population density of only 16 persons per square mile, West Texas is the least densely populated part of Texas. The population of West Texas is about 47% Hispanic. The median age of this region is slightly lower than the state average. There are
three metropolitan statistical areas (MSAs) in West Texas: Midland, Odessa and San Angelo. The best-known city in this region is El Paso. Employment is on the rise and is generally involved in the extraction and transportation of natural resources, as well as activities to support mining. The high school graduation rate is less than the rest of the state (Comptroller.Texas.Gov, n.d.). There have been no reported incidents of cyberbullying in this area of Texas.

East Texas

There is one ESC region in East Texas and its name is simply East Texas (ESC Region 7 with 17 counties). Population growth has been stagnant since 2010. The average income of the East Texas region is below the average wage of Texas and the United States as a whole; individual wage growth was less as well. The primary occupations in this area are the extraction and transportation of natural resources, logging, wood products, and the manufacture of petroleum and coal products. The high school graduation rate is greater than Texas as a whole (Comptroller.Texas.Gov, n. d.).

In 2011, women in East Texas (on the Arkansas-Louisiana border) used Facebook to post pictures of other women and called them promiscuous. The site was named "Logansport Hoes" and suggested that the women in the photos were women of illrepute. One of the victims, Christina Barbee, was able to cope with the harassment, but one of the other women became suicidal after she was taunted with messages suggesting she did not deserve to live. In this instance, cyberbullying was perpetuated by adults on adult victims. It is not difficult to imagine that this created a bad example for the young people residing in this community.

Summary

Bullying, including cyberbullying, is a serious problem worldwide and Texas is no exception. Much has been written on this topic and it is likely to remain the center of discussion for some time to come. There is considerable work to be done if bullying, including cyberbullying, is to be prevented and responded to appropriately. Texas has made a good start in addressing the problem of bullying and cyberbullying by passing David's Law in 2017. Now, the challenge is to verify whether Texas public school districts have complied with the requirements of this long overdue legislation. A survey of teachers across the state of Texas may generate results to fill the gap in the literature and answer the research questions: (a) RQ1: Is there a relationship between a school district's number of students, accountability rating, and per student funding and the compliance score from the teachers' survey?, (b) RQ2: Is there a relationship between insufficient time, limited funding, and lack of support and noncompliance?, and (c) RQ3: is there a relationship between insufficient time, limited funding, and lack of support, and noncompliance?

Known and Unknown

While bullying, including cyberbullying, is well known due to its prevalence and many efforts have been made to both understand and describe it, there have virtually no research studies about this phenomenon.

Major Themes

As seen in this chapter, the major themes were the following:

- Bullying, including cyberbullying, is prevalent and has caused severe consequences for its victims
- There has been little research on bullying, including cyberbullying
- Application of the theory of authoritative school climate was most appropriate to respond to bullying, including cyberbullying

The present study has begun the process of filling the gap in the literature about the status of implementation of David's Law. This will extend knowledge in the discipline, but it is only the beginning. More studies must be conducted.

In Chapter 3, the research that underlies this study will be discussed, including the Design and Rationale, the Methodology, Constructs or Factors, Validity and Reliability, the Data Analysis Plan, Threats to Validity, and Ethical Procedures. This will move the study forward towards conducting a survey, analyzing the results, answering the research questions, and further promoting positive social change.

Chapter 3: Research Method

The purpose of this study was to determine whether the provisions of the Texas antibullying and anticyberbullying law, David's Law, have been put into effect in the state's public school districts. The major sections of this chapter are as follows: this Introduction; Research Design and Rationale which explains the Purpose of the Study which is to determine the degree of compliance with the nine requirements of David's Law, information about the study variables, the design and the research questions; the Methodology which addresses the sampling procedures, recruitment, instrumentation and operationalization of constructs, validity and reliability, and a power analysis; Threats to Validity; Ethical Procedures, and a Summary.

Research Design and Rationale

Study Variables

To answer the research questions for this study, it was necessary to examine the variables generated by each question. The requirements of David's Law were the foundation on which the variables were developed, as well as the research questions.

Research Question 1

Research Question 1 was answered by a survey response of 0 or 1 for each of the nine requirements of David's Law. For each requirement, there was a corresponding variable with a value of either 0 or 1 (dichotomous) that indicated whether the respondent did not choose (0) or did choose (1) that requirement. These variables were treated as nominal and categorical for the purpose of the binary linear regression. They are:

- 1. prohibit bullying the first requirement
- procedure notification the second requirement, that is, procedures to notify parents
- 3. investigate the third requirement, that is, investigate and report
- 4. prohibit retaliation the fourth requirement
- 5. victim actions the fifth requirement, that is, actions victim can take to obtain assistance and intervention
- 6. counseling the sixth requirement, counseling options
- 7. anonymous reporting the seventh requirement, that is, anonymous reporting

- 8. self-defense the eighth requirement, that is, no discipline for self-defense
- 9. ADA the ninth requirement, that is, treat disabled victims per ADA

For each respondent, the sum of the chosen requirements (each of which is either 0 or 1) was calculated. If the sum was seven or greater, the dependent variable, met req, also dichotomous, was assigned the value of 1. Research Question 1 was answered by summing all the responses where met req was equal to one.

Research Question 2

Research Question 2 included several variables. The dependent variable was met req (value was determined in Research Question 1) and the independent variables were:

- size (the number of students)
- funding (per student funding)
- rating (accountability rating)

These were also the covariates and factors. A determination was made of the relationship between met req and the selected independent variables to identify the factor most associated with compliance.

Research Question 3

Research Question 3 had several variables. The dependent variable was termed *did not meet req*. It was the difference between the total number of responses (162) and the value of met req as determined in Research Question 1. The teachers were asked to identify the factor that most impeded compliance, among the following items:

- insufficient time
- lack funding

• lack support

These were covariates and factors. The dependent variable, did not meet req, and its relationship with the selected factor was determined. The logic behind Research Question 2 and Research Question 3 is that regardless of how many requirements were met, the facilitating factors and the impeding factors were still relevant

Whether Texas public school districts have responded positively to David's Law remains unknown, that is, had the legislation actually been implemented? Thus, the research problem was that it was not known whether Texas public school districts had complied with David's Law which required them to institute policy and procedures that include the prohibition of bullying, including cyberbullying, a mandate to report bullying, and to notify parents/guardians of those involved in bullying, including cyberbullying, includin

Research design and connection to research questions

The design of this study was directly related to the research questions because it was an exploratory nonexperimental descriptive and quantitative design, consisted of a survey, and derived all variables from the research questions and David's Law itself to determine how many Texas public school districts have actually complied with David's Law, as well as factors that facilitated or impeded implementation.

Exploratory

The design was exploratory because it addressed a problem that had not yet been studied or rigorously investigated. To date, there have been no studies of the implementation of David's Law.

Nonexperimental

This study was nonexperimental because it did not involve manipulation, but instead, it was concerned with identifying relationships between variables (Reio, 2016). This study sought to describe a phenomenon correctly and methodically: implementation of David's Law. As a descriptive study, it entailed the analysis of data that generated informative descriptions and summaries that can identify patterns (Laerd, 2018). For example, was there a common thread among school districts that have implemented David's Law? or among these that did not? In a descriptive study, information is amassed, but the environment remains the same, resulting in no manipulation. It provides information about a particular group and reveals associations among the variables under consideration (U.S. Department of Health & Human Services, n.d.). This study answered the questions "how many?", "which requirements?", and "what factors (facilitated or impeded implementation)?".

Quantitative

In addition, this study was quantitative since it addressed frequencies and logistic regression (McCombes, 2020). With binary regression, it is important to determine the goodness of fit of the model. Goodness of fit is how well the values in the model match the observed values (NIST, n.d.).

Model and Model Fit. A model is a formal description of how two or more variables are related presented in a mathematical equation. It is statistical because the variables are related in a random fashion rather than a pre-determined one (Henley, 2019). Many statistical tests involve comparing a particular model with observed data (American Psychological Association, 2020). This made it important to build a good model, one that is "fitted". To develop a good model, the researcher uses theory or knowledge of the subject.

In this study, the evaluation of model fit was done using a likelihood-ratio chisquare test which compared the full model (with all predictors) with the null model (intercept-only). Overall model fit was assessed with pseudo r-squared indices, such that the pseudo r-squared values, as provided by Cox and Snell R-square and Nagelkerke R-Square, represented the proportion of variation in the dependent variable accounted for by the predictor. When a Binary Regression Analysis is performed in SPSS, if the chisquare is significant, it can be affirmed that the full model is better than the null model. Another chi-square test that determines the model fit is the Hosmer-Lemeshow test which uses non-significance as the measure of fit, that is, p>.05.

Observed versus Predicted Values. What is of interest here is whether there was a correspondence between observed values and predicted values in terms of group membership. In other words, how many of the predicted cases were observed, or how well did the model predict the observed values? This produces an accuracy rate (percentage correct) for each value of met req or did not meet req and group membership. In SPSS, the option to obtain predicted probabilities provides a value that can be correlated with actual group membership. If this value is squared, it becomes an r^2 value, which is also called the coefficient of determination. Since this study is employing binary logistic regression, wherein the dependent variable is binary and categorical, the use of ordinary least squares (OLS) is not appropriate. While in OLS regression, the coefficient

of determination r^2 is generally used to determine model fit, in binary logistic regression, it is necessary to obtain pseudo r^2 values which is appropriate for logit models (Hemmert et al., 2018). It is equivalent to R^2 in multiple regression; Laerd Statistics, 2018). In SPSS, the Nagelkerke *R Square* indicates how changes in the value of the independent variables are associated with changes in the probability of the dependent variable. For example, if the *R square* is equal to 1, it means that the independent variable explains 100% of the dependent variable's variation, that is, it completely determines its values. On the other hand, an *R square* of 0 means that the independent variable explains none of the variation in the dependent variable, that is, it is not explanatory.

Odds or Log Odds. Odds represent the likelihood of an event. Odds ratio is the ratio of the probability of an event taking place to the probability that the event does not occur (Szumilas, 2010; Norton et al., 2018). It is basically a ratio of two odds. An odds ratio of 1.0 represents equal odds, while an odds ratio greater than 1.0 indicates an increase in the likelihood the event will occur, and an odds ratio of less than one is an indication that the outcome is less likely to occur (Frey, 2018). Modeling the relationship between the predictors and the dependent variable, that is, target group membership, was performed using log odds. Thus, we could predict change in log odds for every one unit increase of the predictor variables. This was represented by the coefficients, that is, β , which is the strength of the relationship between the target and outcome variables from -1 (strong negative relationship) to 1 (strong positive relationship). Coefficients are the values for predicting the dependent variable from the independent variable in log-odds units. In this study, in Research Question 2, the target group, or dependent variable, was

met req and the Confidence Interval chosen for the odds ratios was .95. Met req, by virtue of being dichotomous, defined membership in one of two groups, where met req is 0, when fewer than seven requirements were implemented (one group), and met req is 1, when seven or more requirements were met (another group). In the case of Research Question 3, the target group or dependent variable was did not meet req and the Confidence Interval chosen for the odds ratios was .95. The dependent variable defined membership in one of two groups, that is, did not meet req = 0 when met req was = 1 and did not meet req was = 1 when met req = 0.

Log odds is the natural log of the odds and helps to determine relationships between predictors and the target group. For example, if a study predictor, such as funding and the probability of the target outcome, met req = 1, and if the coefficient is positive and significant ($p \le .05$), we can say that this predictor has a strong association with the target, met req. Exp(*B*) are the odds ratios for the predictors, as well as the exponentiation of the coefficients.

Cross-tabulation. Reliability is often assessed by determination of the correlation or the reliability coefficient. Since this study dealt with dichotomous independent variables (nominal and categorical), a Correlation Matrix such as generated by Pearson Correlation was not appropriate. Instead, the best measure of correlation is obtained by a cross-tabulation to obtain *phi*. The data addressed in this study is nonparametric. This is unlike parametric data which has a normal distribution and the same parameters (that is, means and standard deviations) as the general population from which a sample is drawn, that is, it is centered and symmetrical. Nonparametric data cannot be assumed to have a

normal distribution and requires nonparametric tests that use the median versus the mean to determine central tendency (Hopkins et al., 2018). The use of *phi* is appropriate because the phi coefficient (φ) tests the relationship between two dichotomous variables, that is, variables that have only two mutually exclusive values (0 or 1; Allen, 2017). This is important in a determination of multicollinearity because multicollinearity means there are strong linear dependencies among the explanatory variables. This can result in unstable and biased standard errors generating unreliable *p*-values (Vatcheva et al., 2016). This was further substantiated in an article by Senaviratna and Cooray (2019) who stated that multicollinearity produces unreliable estimates and variances that impact confidence intervals and hypothesis testing.

A cross-tabulation is a two-(or more) dimensional table in which the frequency and percentages of specific responses are located in the table's cells (Qualtrics, 2021). The phi correlation coefficient (phi) is used to determine the strength of relationship between two variables. It is a nonparametric statistic used in cross-tabulated table data when variables are dichotomous (Frey, 2018).

Statistical Procedures. Consistent with a quantitative design, the answer to Research Question 1 was derived from frequencies, for example, how times was "prohibit bullying" chosen? To answer Research Question 2 and Research Question 3, binary regression analysis was conducted. This was because the dependent variables, met req and did not meet req were binary or dichotomous. There was a relationship between the dependent variable and the independent variables, which are considered predictor variables. A binary regression analysis was useful because a prediction model was sought, that is, an estimate of the probability of an event occurring or not occurring is needed (Van Smeden, 2018

For Research Question 2, the dependent variable, was met req. It was regressed on the covariates, size, funding, and rating which were nominal and designated as categorical. The relationship between one or more predictors (for example, funding) and the probability of the target outcome, met req, is non-linear, which is why the specific use of binary logistic regression was required. In this study, the independent variables (predictors) were covariates. This is consistent with Chapter 11, "Logistic Regression", in the text *Advanced and Multivariate Statistical Methods*, in which it states that in SPSS, the independent variables are entered in the covariates box (Mertler & Rinehart, 2017).

The Omnibus Test is a likelihood ratio chi-square test of whether all the independent variables collectively improve the model over the null model which has no predictors, just the intercept and all other independent variables = 0. According to IBM, the Omnibus Test is a likelihood-ratio chi-square test of the current model versus the null model. A significance value of less than 0.05 indicates that the model is an improvement over the null model (IBM Knowledge Center, n.d.).

The Classification Table is described by IBM as a method to derive and display predicted versus observed values. The classification of a case is based on the predicted probability that the case will be produce a higher value on the dependent variable, using the current model equation (IBM, 2020). In other words, classification is the process of comparing the predicted number of positive outcomes to the number of actually observed positive outcomes, as well as comparing the predicted number of negative outcomes with the number of observed negative outcomes. The observed or actual value is acquired by observation or measurement of the available data. The predicted value is the product that has been predicted by means of a regression analysis. The difference between the observed value and the predicted value is called the residual.

Survey-based

Since surveys are conducted to provide answers to research questions with the aim to collect information relevant to a particular study, it made sense to conduct a survey (Stoica, 2019; Wienclaw, 2019). While the needed information could have been obtained by interviews with representatives of Texas public school districts, the likely duration and cost of this approach were prohibitive. The best way to obtain information about the status of compliance in Texas public school districts was to ask those most knowledgeable about the subject, that is, the district teachers. Collecting this data could have been performed using an instrument I designed myself, or an instrument that I could have modified that had been used in another study, or an intact instrument that had been used by another researcher (Smith, 2019). In the absence of an available tool, I decided to develop my own survey.

A survey is an appropriate tool to obtain responses from persons who are literate and to communicate with a large body of respondents that would require too much time if interviews were conducted (Nardi, 2018). In an article about surveys, the author stated that the methodology of survey research is used the most frequently in the social sciences and is employed in 70% of studies (Stoica, 2019). In addition to the consideration of time, conducting interviews in person would have required extensive travel, as Texas is a very large state, and this travel would have imposed a significant financial expenditure and additional time. It was also likely that the teachers would have preferred to respond to the survey at their convenience, without the additional pressure of the researcher's presence. The advancement of knowledge in the fields of social science, education, and public policy is often accomplished by conducting surveys and interpreting their results. It is important that a survey be well-designed to increase the potential for obtaining valid and reliable data. The use of simple and concrete phrasing that is easily understood and the avoidance of biased or offensive language can increase the ability of the survey to elicit appropriate responses (Pew Research Center, n.d.). It is the task of the researcher to frequently refer to the research question(s) to develop a quality survey instrument (Leggett, 2017).

After the survey decision, the question was who would be the survey respondents? Instead of using a random sample, I sought individuals who were knowledgeable about the topic of implementation and how it was conducted (Sage Publications, n.d.). The school principals and the district administrators should have been able to provide the needed information, but their responses could be biased due to the potential negative impact of inadequate implementation on their professional reputations. However, teachers by virtue of being with the school children every day could provide complete and accurate information about what is happening in their schools. The next question was what type of survey to employ. In addition to the rejected interview approach, there are paper surveys that are transferred via postal mail, telephonic surveys, and online surveys. Paper surveys were eliminated because of the unpredictability of receiving responses in a timely manner, if at all, as well as the expense. If response were slow or inadequate, reminders could have been sent with further impact on time and expense. Telephonic surveys were also eliminated as obtaining telephone numbers could have been difficult, as well as the possible perception of intrusiveness. Thus, an online survey seemed the best choice, especially given the ease with which reminders can be issued when more responses are needed. Next, the survey tool was chosen. While there are survey software packages, such as Survey Monkey and Qualtrics, upon learning that Texas teachers are well-versed in the Google environment, including Google Forms (to generate surveys), Google Forms was selected. This tool made survey design straightforward, was very flexible, and ensured confidentiality and anonymity. The survey was designed with 14 easy-to-answer mostly multiple choice questions, but also included open-ended questions to make it as comprehensive as possible. First and foremost, it is what the respondents experienced and observe in their schools relative to bullying, including cyberbullying, and David's Law that should be the outcome of the survey.

Time and resource constraints

There were no serious time and resource constraints associated with this study, as the only time constraint was the interval between the time the survey was posted to the teacher group Facebook pages and the time when the teachers' responses were received. Since I was the only researcher involved in this study, there were no resource constraints.

Design Choice

The design choice was made after careful consideration of David's Law and Texas public school districts. This was based on my desire to produce a study that was comprehensive, easy to use and understand, generate information that would advance knowledge in the discipline.

Methodology

Population

The target population of this study consisted of Texas public school district teachers from the statewide county school systems that were part of the 20 ESC Regions. The number of teachers exceeded 1,000.

Sampling and Sampling Procedures

Sampling Strategy

The teachers who participated in the survey were chosen by homogenous convenience sampling from the teacher group Facebook pages. It has been stated that in the field of developmental science, nonprobability convenience sampling has become the standard (Jager et al., 2017). This was appropriate as the issue of bullying has been the subject of much research relative to determining effective strategies to avoid and reduce bullying and bring about improvement in the home, school, and community (Divecha, 2020). In addition, while the sample is a convenience sample, it shares characteristics of homogenous sampling because it is focused on respondents who had similar attributes, that is, they were all public school teachers in the state of Texas whose experience with bullying/cyberbullying was the main focus of the study (Etikan, 2016).

In quantitative research, a sample is derived from the population, in this case, a portion of the teachers who worked in the Texas public school districts, because it was representative of the target population. In other words, the sample possessed attributes characteristic of the population. This served to make the sample generalizable (El-Masri, 2017).

Sampling procedures

Since Texas is a very large state (second largest in the United States with an area of approximately 268,581 square miles), it spans multiple geographic regions (Worldatlas, 2019). Deriving a good sample was based on homogenous convenience sampling of teachers from school districts from the defined regions. This was facilitated by the fact that the Texas Education Agency (TEA) identified 20 regions. that is, Education Service Centers (ESCs) wherein counties have one or more public school districts (Texas Education Agency, n. d.). Posting the survey to the various teacher group Facebook pages increased the likelihood that all regions with their specific demographics were included, producing a representative sample. The study did not include private schools or charter schools.

Table 1, Education Service Center Regions, provided detail, as did Figure 1, Texas ESC Regions. They were presented to provide a better understanding of the composition of the Education Service Centers' regions (ESCs). As can be seen, the 20 ESCs are dispersed throughout the state of Texas.

Table 1

Region	Geographic_Location	Number Of Counties	Major City
1.	Rural South Texas	8	Edinburg
2.	Southern Texas	9	Corpus Christi
3.	Southeast Central Texas	13	Victoria
4.	Southeast Texas	7	Houston
5.	Southeast Texas	27	Beaumont
6.	Southeastern Texas (West Gulf Coastal Plain)	15	Huntsville
7.	East Texas	17	Kilgore
8.	Northeastern Texas	11	Pittsburg
9.	Northwest Texas (Rolling Plains region)	12	Wichita Falls
10.	Northcentral Texas	9	Dallas
11.	Northcentral Texas	10	Fort Worth
12.	Central Texas	12	Waco
13	Central Texas	4	Austin
14.	Rural West Texas	13	Abilene
15.	West-Central Texas	18	San Angelo
16.	Northwestern Texas	26	Amarillo
17.	Northwest Texas (Panhandle)	20	Lubbock
18.	West Texas (southern rim of High Plains)	19	Midland
19.	Western Texas	2	El Paso
20.	Southcentral Texas	21	San Antonio

Education Service Center Regions

Note: Data obtained from the Texas Education Agency

Figure 1



Figure 2, Region 4, provides more detail about the composition of the Texas ESC Region 4 to facilitate understanding the scope and breadth of a study of Texas public school districts.

Figure 1

Region 4



Note. Region 4, with counties; Liberty Co., with ISCs

Power Analysis

A power analysis enabled me to determine whether a statistically significant result could be derived from this study. It helped establish the smallest sample size to identify the effect of my study with the chosen level of significance. As seen in *Table 1*, *Education Service Center Regions*, there are many counties, many of which have numerous school districts, thus illustrating the size and diversity of the Texas ESC Regions.

Type I Error. The level of significance of a test or the Type I error rate, that is, the rejection of the null hypothesis when it is true, is denoted by the Greek letter α , and for any value of α , statistical power increases in synch with increasing sample sizes and effect sizes (Perugini et al., 2018). Thus, power of a research study can be compromised by underestimating sample size; in order to obtain statistical significance power is based on the sample size, effect size, and the α -level. It is important that the survey results are significant and not due to chance. Power enhances the survey and data collection (Bausell & Li, 2002). Statistical power is the probability that statistical significance will be achieved based on the size of the effect. This study solicited survey responses from Texas public school teachers who participated in the various teacher group Facebook pages, including "Texas Teachers", "Texas History Teachers", "Texas Teachers Safety Initiative", "Texas Health Science Teachers", "Texas Math Teachers" and "Texas Teachers' Lounge", among others. Virtually every Texas teacher Facebook page was included in the survey, thus increasing its generalizability. It was anticipated that reminders would be posted to the survey to bring about increased participation, and it was considered likely that teachers would communicate among themselves, bringing about greater responsiveness consistent with snowball sampling. The effect size is the most significant finding of a quantitative study (Sullivan, & Feinn, 2012). It is an indication of the extent of the quantitative relationship between two variables (Schober et al., 2018). Computed indicators of effect size are useful when the measurements have no inherent meaning, such as numbers on a Likert scale in a survey. While a p value is useful for ascertaining that there is an effect, but it does not establish the size of the effect (Statistics Solutions, 2017). The effect size is the level of significance established before a study is begun, for example, prior to this study I have established that a p < 0.05 is significant. This means that the probability that the result is due to chance is 5%, or that I am willing to accept the rejection of a true null hypothesis in 5 out of 100 times, that is, a false positive. This is a Type I error (Alterman, 2020).

Confidence Level and Confidence Interval

The alpha level is the baseline against which the *p*-value is measured. It indicates the confidence level of the study. The alpha level is an indication of probability and can range from 0 to 1. However, the alpha level for most studies is set at 0.01, or 0.05, or 0.1 (Lakens, Scheel, & Isager, 2018). In addition, it is important to set a value for the Confidence Interval (CI) prior to data collection. A CI is a range of values likely to include a population parameter that is unknown, while a confidence level is a percentage that indicates the probability that the CI contains the true population parameter, as would occur of the sample is taken from the same population multiple times (Schober, Bossers,

& Schwarte, 2018). This study will have a 95% confidence level, which means that alpha is equal to 1 minus 0.95 or 0.05 and the Confidence Interval is 5.2.

Type II Error

A Type II error occurs when a number of positive instances are incorrectly reported as negative and is denoted by the letter β . Power is the probability of not making a Type II error. Thus, the power of a study is equal to $(1 - \beta)$, or the probability of failing to reject a false null hypothesis. The result is that the power of the study increases as the probability of making a Type II error decreases (Shreffler, & Huecker, 2020). The power level I have chosen for this study was .80 which means the teachers' survey, if repeated multiple times, would produce a statistically significant result 8 times out 10.

The sample size of my study was based on a Sample Size Calculator provided by Creative Research Systems as found at https://www.surveysystem.com/sscalc.htm. This tool indicated that for my study, the sample should consist of 262 responses.

Procedures for Recruitment, Participation, and Data Collection

Recruiting Procedures

Participants in this study were teachers in the Texas public school districts, who were chosen by convenience sampling from teacher group Facebook pages in which they routinely participated. The survey was posted to each of the teacher group Facebook pages with a brief description of the purpose of the survey and assurances that participation is voluntary and anonymous. Instead, the school districts included in the survey represented varying demographics, as found across the state of Texas.

Informed Consent

Informed consent was a portion of the survey seen prior to any questions and if a teacher wished not to complete the survey, they could quit at any time and no data was saved. No demographic information about the respondents was collected.

If teacher chose to exit and submit the study, they were instructed to hit the SUBMIT button and the survey was no longer available, except to the researcher.

Data Collection

When the surveys were returned, the respondent selections were copied to a spreadsheet using Microsoft Excel and the data was then be imported into the Statistical Package for the Social Sciences (SPSS), where the values assigned to the variables were processed. Descriptive statistics were used to obtain frequencies and binary logistic regression to determine the relationships between the independent variables and the dependent variables. In the text posted to the teacher group Facebook pages requesting participation in the study, the teachers were informed that once the study had been completed, the results would be posted to the same teacher group Facebook pages. No specification of districts or teachers' names would be provided (the teachers' names were nowhere on the survey) and no follow-up procedures were planned.

Instrumentation and Operationalization of Constructs

Basis for Development

During the Literature Review, it was ascertained that there were no previous studies about the implementation of David's Law. Thus, it was decided to conduct this study and to create a survey to elicit answers to the research questions. The present study was conducted using non-experimental quantitative survey methods. This made it possible to ascertain the relationship between variables. In addition, this survey was cross-sectional since it collected data at one point in time (Allen, 2017). The goal of any quantitative research is explanation, and the application of numerical analysis helped to explain or predict relationships between two variables (Goertzen, 2017). The results of quantitative research provide statistics about the relative importance of factors that influence a given population. It also generates data about the occurrence of a phenomenon, and the extent of the phenomenon's impact on the population (Allen, 2017a). In this study, the choice of a survey was made based on the ability to reach a large number of participants (public school district teachers) at one time with minimal expense, to collect data on multiple variables, and to analyze the data using statistical software (that is, SPSS) (Taylor, 2017). In addition, since the survey was anonymous, it offered more privacy than other methods (Burkholder et al. (Eds.), 2018).

Instrumentation/Survey

While David's Law was passed in 2017, it had not yet been determined how many of the Texas public school districts had implemented the law. Given the potential for serious damage to young people, including the risk of suicide (John et al., 2018), it was imperative that a closer look at the actions taken by the school districts pursuant to passage of the law be performed. A Web survey was conducted to seek input from Texas public school district teachers. The survey consisted of 14 questions as seen in the following:

- Which Education Service Center (ESC) is your school a part of? (A drop down list of the 20 Texas ESC regions is presented.)
- 2. What is the name of the district in which your school is located? (Space is allocated for a written reply.)
- From your perspective, does your school district have a bullying/cyberbullying problem? (1 answer to be selected from multiple choice list.)
- Does your school district have a policy and procedures relative to bullying/cyberbullying? (1 answer to be selected from multiple choice list.)
- 5. Which of the following requirements of David's Law do you believe were implemented in your school district? (Respondent can select 1 or more of the multiple choices from the list.)
- If David's Law was implemented in your school district, what do you believe was the most significant factor? (1 answer to be selected from multiple choice list.)
- 7. What do you believe was the most significant impediment to implementation of David's Law in your school district? (1 answer to be selected from multiple choice list.)
- 8. Have you personally witnessed bullying/cyberbullying in your school district?(1 answer to be selected from multiple choice list.)

- Do you believe that your school district has implemented effective antibullying, including anticyber bullying, policy, and procedures? (1 answer to be selected from multiple choice list.)
- 10. What do you believe is the most effective component of your school district's antibullying and anticyberbullying policy and procedures? (1 answer to be selected from multiple choice list.)
- Have you personally observed the implementation of David's Law in your school district? (Choice of "Yes" or "No".)
- 12. From your perspective, could compliance with policy and procedures be improved by the following? (Respondent can select 1 or more of the multiple choices from the list.)
- 13. What strategies did your school district use to implement David's Law? (Respondent can select 1 or more of the multiple choices from the list.)
- 14. Prior to this survey, were you familiar with David's Law? (choices include "not at all", "somewhat", "very familiar".)

This questionnaire was a tool used to collect information from school district teachers and was a component of the survey process, that is, it was the survey instrument (Ruel et al., 2016). It was what the study sought to learn, and the analyzed results provided the answers to the research questions. Specifically, the fourteen survey questions produced the following needed information: a count of the requirements implemented per district, the selection frequency of each requirement, the factor that was most significant to the implementation, and the factor that was the most serious impediment to implementation. In addition, respondents were asked questions about their subjective viewpoints and observations, such as whether their school had policies and procedures in place, the degree of effectiveness of the policies and procedures, which requirement of David's Law were most important, whether they believed their district had a bullying problem, including cyberbullying (answers range from "no problem" to "frequent serious incidents"), whether they had personally witnessed bullying, including cyberbullying, whether they had personally witnessed the implementation of David's Law, and what they thought could improve their school's implementation of David's Law. The last question may have been the most telling, whether the teachers were familiar with David's Law prior to the survey.

In responding to the first survey question, the possibility that the teachers would experience bias whereby they were motivated to select more requirements than were actually implemented in their district was very unlikely. The survey was selfadministered, that is, it was posted to the teacher group Facebook pages. The text at the top of the survey requesting participation indicated that the survey results would be provided on the teacher group Facebook page where the survey was posted once the study was complete. Results would contain no identifying information. Web surveys offered a cost benefit as they tend to be cheaper than others forms of surveys. In addition, they were also good to use with a geographically dispersed population, such as the school district teachers throughout the state of Texas (Ruel et al., 2016). Once the surveys were completed, they were analyzed using SPSS procedures. There was no planned follow-up, except in response to possible requests from any of the teachers.

Reliability

Reliability is the stability of findings, that is, the consistency of measurement over a variety of conditions which produces essentially the same results (Mohamad et al., 2015). There are random errors that can affect test results. For example, if a respondent guessed answers on a survey, this would cause additional randomness or unreliability to the results (Drost, 2011). Among the main concerns in reliability testing are stability over time (test-retest reliability) and internal consistency. In the case of the teachers' survey, it was not possible to repeat the survey as needed for test-retest reliability. According to El Hajjar (2018), the internal consistency is a determination of consistency within the instrument (that is, survey) and how survey items measure a particular behavior or characteristic. An example is the survey question that sought a response to Research Question 2 and provided options to associate the compliance score with a specific factor, such as per student spending.

An example of reliability is a survey, which should produce similar results, if the same person takes it a second time with similar conditions. In the case of the teachers' survey, it has only been administered once for this study, so its reliability cannot be verified.

Validity

For a binary event, such as the determination of the value of a dependent variable, for example, met req, logistic regression is often used. This study employed a form of logistic regression, that is, a binary logistic regression. Consistent with an article by Sperandei (2014), this study built a logistic regression model that included all explanatory variables (for example, size, funding, and rating related to Research Question 2). This is called a full model and is thought to be a good approach when the sample size is adequate and there are only a few variables.

Validity of Model

When this type of regression is performed, the validity of the model is of the greatest importance. As stated by Hickey & Blackstone (2016), it is critical that external model validation be assessed to generate confidence in the model. There are several statistical tools to determine model validity in binary logistic regression, but the main ones consist of measures of goodness-of-fit (Rana et al., 2010). These include tests such as the Nagelkerke R square and the Hosmer and Lemeshow test. Logistic regression is similar to linear regression and can include multiple independent variables. In this study, the independent variables were size, funding and rating (Research Question 2), or insufficient time, lack funding, and lack support (Research Question 3). It was thought that examining multiple variables provided more information about the contribution of each variable after controlling the others. There was a distinct benefit to assessing the independent variables simultaneously, as opposed to considering them separately (Stolzfus, 2011).

One way to determine the validity of this study was to verify that the assumptions of binary logistic regression had been met. These included: the dependent variable (met req) was binary, the observations (each respondent provided an observation) were independent, there was no linearity among the independent variables (for example, size, funding, and rating), the independent variables had a linear relationship with the log odds, and the sample size was adequate (262 respondents).

In this study, validity was the correctness of the interpretations that could be made from responses to the teachers' survey. Validity is a test characteristic and an intrinsic property of a tool (for example, a survey), rendering it important for assessment development and quality observations.

Content Validity

Content validity, also known as logical validity, means that the instrument, that is, the teachers' survey, seems to measure what it was designed to measure (Notelaers, & Van der Heijden, 2019). It is the ability of selected items to reflect the variables of the construct in the measure and is generally determined by experts who consider that the instrument can be used to obtain sought-after information (Almanasreh et al., 2019). Content validity is a frequently used method to determine the reliability of researcher-constructed instruments (that is, the teachers' survey), and is often established in the primary stage of instrument development (Vakili, & Jahangiri, 2018). It has been stated that content validity, sometimes designated as face validity, requires that the survey questions be straightforward and motivate respondents to reply in a more truthful manner (Anaesth, 2017).

Construct Validity

Construct validity provides the means to link abstract concepts to measurable variables. According to an article about threats to construct validity in item generation, the authors stated that construct validity is necessary to generate survey items and that a

clear functioning definition based on theory is required (Ford, & Scandura, 2018). Often, construct validity involves developing a new measure or test, such as the teachers' survey (Allen, 2017). In this study, it was believed that there were nine variables directly related to the constructs of either *mandate* or *protect*. They were the operationalization of these concepts (Allen, 2017b). Construct validity is applicable to situations where variables are not directly observable, but instead the traits or characteristics are latent or conceptual. A construct is an idea which is identified, defined, and evolves into a theory. A construct needs to be decomposed to obtain the number of existing factors and their relationship, as well as determining a method to measure it, ensuring that the measure actually is representative of the construct. Thus, construct validity serves to determine the usefulness and correctness of an instrument for a specific function, as well as the degree of confidence that can be obtained in the interpretation of the measures derived from that instrument (Flake et al., 2017). A construct is a theorized psychological concept, which if aligned with a measurement or scale, can indicate whether or not the scale provides an adequate measurement of the construct. Figure 3, Latent and Observed Variables, illustrates the latent variables or factors in this study as follows:

Figure 2



Latent and Observed Variables

Sufficiency of Instrumentation

The instrument employed in this study was the teachers' survey. The survey questions were based on the requirements of David's Law. In addition, the respondents were provided an opportunity to enter additional information that could add more depth to the survey. This was considered sufficient to answer the research questions.

Operationalization

Operationalization is a method to link concepts to variables (Martinez, 2017).

There were several variables in this study as follows:

Research Question 1

 met req: output dependent variable, nominal, set to one, if seven or more of the requirements have been implemented, and set to 0, if fewer than seven requirements have been implemented; determined for each respondent, operationalization of compliance

Research Question 2

- met req: output dependent variable (value obtained from Research Question 1); nominal
- size: input independent variable, nominal (number of students)
- funding: input variable, nominal (funding provided to the school district for each student (Research Question 2)
- rating: input variable, the score produced by the Texas Education Agency

Research Question 3

- did not meet req: output dependent variable, nominal
- insufficient time: input independent variable, nominal
- lack funding: input independent variable, nominal; lack of funding
- lack support: input independent variable, nominal; lack of support

To provide an example of the operationalization of the variables, a fictitious response was created. In this response, a school district teacher selected only 4 of the requirements: prohibit bullying (requirement #1), identify available counseling (requirement #5), anonymous reporting (requirement #6), and prohibit discipline of victim who used reasonable self-defense (requirement # 8). Initially, met req had the

value of 0. After the teacher selected the four options, met req retained the value of 0, since seven or more requirements had to be chosen to assign the value of 1 to met req.

Data Analysis Plan

Software Used for Analysis

The IBM Statistical Package for the Social Sciences (SPSS) was used to perform the statistical analysis. There was no need for data cleaning and screening, as the survey was designed to provide checkboxes (where the teacher could select each requirement implemented) for Research Question 1, "What is the extent to which Texas public school districts have implemented David's Law?" Research Question 2, "Is there a relationship between a school district's number of students, accountability rating, and per student funding, and the number of requirements met from the teachers' survey?" and Research Question 3, "What are the limitations or barriers to implementation of David's Law that confront Texas public school districts?" were limited to a single choice by the use of radio buttons.

Research Questions and Hypotheses

As identified in Chapter 1, the Research Questions and Hypotheses were the following:

Research Question 1(RQ1): How many of the requirements of David's Law have been met?

 H_01 : None of the requirements of David's Law have been met.

 H_{a1} : One to nine of the requirements of David's Law have been met.

Research Question 2(RQ2): Is there a relationship between a school district's number of students, accountability rating, and per student funding, and the number of requirements met from the teachers' survey which predicts compliance with David's Law?

 H_02 : there is no relationship between a school district's number of students, accountability rating, and per student funding, and the number of requirements met from the teachers' survey.

 H_a 2: there is a relationship between a school district's number of students, accountability rating, and per student funding, and number of requirements met from the teachers' survey.

Research Question 3 (RQ3): is there a relationship between insufficient time, limited funding, and lack of support, and noncompliance?

 H_03 : there is no relationship between insufficient time, limited funding, and lack of support, and non-compliance.

 H_a 3: there is a relationship between insufficient time, limited funding, and lack of support, and non-compliance.

Details of Analysis Plan

The hypotheses were tested by using SPSS to generate frequency counts for Research Question 1, and binary logistic regression (for each of Research Questions 2 and 3). The remaining survey questions sought to determine whether the teacher had heard of David's Law, did the teacher's school have a bullying, including cyberbullying, problem, whether the district's existing policy and procedures were effective, and lastly, a choice of implementation strategies employed in the teacher's district with the option to select all that apply. These survey questions were subject to frequency and percentage analyses.

Procedures for Multiple Statistical Tests

The results of this study were interpreted in a manner consistent with statistical analysis conducted in SPSS, that is, frequency counts and binary logistic regression (Ahmad et al., 2018).

Covariates

The covariates in this study were the independent variables which as stated by Allen (2017) they are continuous variables that are expected to correlate or change with the dependent variable. Thus, for research Question 2, the covariates are size, funding, and rating. For research Question 3, the covariates are insufficient time, lack funding, and lack support.

Key Parameter Estimates

Parameter estimates are a method to determine the values of population parameters from sample statistics. Generally, population parameters are fixed and unknown (Lewis-Beck et al., 2004). However, when performing a binary logistic regression, the parameter estimates are undermined by the use of odds and odds ratios. The result of a binary logistic regression is not a prediction of a value. Instead, it is a probability of having one of two conditions of the dependent variable (met req), which can be any value between 0 and (Abonazel, & Ibrahim, 2018). The concept of probability is applied to situations where phenomenon are uncertain, such as the case of the Texas
public school districts' implementation of David's Law. It is a mathematical model that connects every value of a variable to the probability that this value may be actually observed. In its simplest terms, probability is the likelihood of occurrence of events divided by the number of possible outcomes (Di Paola et al., 2018). An example in this study would be that met req indicated whether or not the districts surveyed implemented at least seven requirements. As stated earlier, the alpha level is an indication of probability and was set at .05 for this study which translated to a Confidence Level of 95%. The Confidence Interval (CI) represented a range of values that may include an unknown population parameter, for example, the number of respondents who selected seven or more of the requirements of David's Law, while a Confidence Level is a percentage that indicates the probability that the CI contains the true population parameter, as would occur if the sample is taken from the same population multiple times (Schober et al., 2018). The Confidence Level for this study was 95% which represents the certainty that 95% of all possible samples would include the actual population parameter.

Threats to Validity

External Validity

External validity is the degree to which the conclusions of a study would be obtained if the study were performed with other people, at different places and times (Trochim, 2020). Threats to external validity include a sample that is biased or is not representative of the population (Allen, 2017a). Threats to external validity generally include participants having taken a pre-test which creates a bias and being influenced by the experience, and the selection of participants who are not representative of the study's population (Streefkerk, 2019). Since the teachers' survey was only administered once to the participants chosen by homogenous convenience sampling, bias did not affect external validity.

Internal Validity

Internal validity is the extent to which perceived changes in the dependent variable are directly associated with the independent variable (Baldwin, 2018). There are several threats to internal validity, such as selection bias, mortality, instrumentation, history, maturation, and regression to the mean. In this study, selection bias was not likely to be an impediment to internal validity as the sampling of the teachers' survey respondents was based on homogenous convenience sampling. The instrument, that is, the survey, was not changed during the time in which it was posted to the teacher group Facebook pages. Thus, instrumentation was not an internal validity threat in this study. History can affect internal validity when an unrelated event takes place during the study. Since the teachers' survey was completed during a short period of time, consistent with Web-based surveys, it was unlikely that any unforeseen event that could change the outcome would take place. However, there was a pandemic during the period when the survey was conducted which led to more online instruction. The impact of this situation could not be assessed relative to the survey. Maturation occurs when the study population changes over time. Since the survey was only administered once, this did not occur. In addition, the brief time allotted to survey completion provided assurance that mortality would not take place. Lastly, regression to the mean occurs when there is a nonrandom population sample and there is a test-retest situation such that there is a limited

correlation (Trochim, 2020). In the case of the teachers' survey, a test-retest was not conducted.

Statistical Conclusion Validity

An interesting type of validity is statistical conclusion validity. A study may be lacking in statistical conclusion validity if the researcher prioritizes obtaining significant results over results that correctly portray reality. This can result in erroneous conclusions (Hales, 2016). It was not my intention as a researcher to pursue significance over creating an accurate view of reality. However, this could have occurred, if I had decided to use independent variables for Research Questions 2 and 3, that were not truly contributing factors to implementation or impediments to implementation. At the time this study was developed, the chosen independent variables seemed to be the most likely variables that had a relationship with the outcome variables under consideration.

Construct Validity

Lastly, construct validity refers to the extent that conclusions can justifiably be made from study operationalizations to the theoretical constructs that formed the basis of the operationalizations (Notelaers & Van der Heijden, 2019). It provides a method to generalize from a specific program or measures to their underlying concept (Trochim, 2020). Threats to construct validity include inadequate operationalization of the persons, observations, or settings from which inferences can be made and insufficient explanation of the constructs (Petursdottir, & Carr, 2018). Care must be taken when developing survey items to avoid certain pitfalls, such as nonsensical survey items resulting in nonresponse and/or response bias. This can result in poor and non-replicable results, limited construct validity, and the inability of statistical procedures to identify statistical significance. Potential threats to construct validity in surveys include ambiguous phrasing, negative wording that could create a negative reaction or precipitate social desirability bias, and the use of acronyms or jargon (Ford, & Scandura, 2018). The teachers' survey constructs, and their operationalization were given serious thought as can be seen in Figure 3 Latent and observed variables, as well as in the section entitled Constructs or Factors.

Ethical Procedures

Whenever research is conducted, it is essential that potential ethical issues be considered. This means that participants are not harmed, they freely consent to the research, and they are assured of confidentiality. This is consistent with the Belmont Report issued in 1979 which identified three ethical principles to protect human research participants: respect, beneficence which is minimization of possible harm and maximization of benefits, and justice where benefits and risks are fairly allocated (Clark, 2019).

Institutional Review Board

The Texas public school district teachers were asked to participate in the survey on various Texas teacher group Facebook pages. They were contacted after the Walden University Institutional Review Board (IRB) granted approval for conducting the survey. The survey was not posted to the teacher group Facebook pages until the necessary approvals to proceed were given. There was text in the survey similar to the following: "To protect your privacy, you are not asked to provide your name or signature or district name anywhere on the survey. Instead, your return of the completed survey will serve as your sign that you agree to volunteer. If you do not wish to volunteer, then you may return a blank survey" (Walden University Center for Research Quality, n.d.).

The IRB Consent number is as follows:

2020.10.2

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Recruitment

While seeking information about bullying can present ethical challenges, if the actual offenders or victims were contacted, this study was only concerned with the status of compliance with David's Law, as perceived by the school district teachers, that is, no students were contacted. Given that responding to the online survey was essentially a random process and that the survey was completely non-judgmental, there should have been no concern on the part of the respondents relative to participation. In addition to total anonymity, the results will only be shared with the teachers, if requested, without any identifying data. Lack of response or incomplete surveys was of no great concern because of the size of the sample, that is, 262 respondents from a total population many times that number, since there are over 1,000 districts in total. However, on two occasions, when insufficient responses were received, reminders were posted to the teacher group Facebook pages.

Data Collection and Security

The potential for ethical concerns was diminished by making it clear that the teachers had no obligation whatsoever to complete the survey, that is, it was entirely voluntary. All data entered into the survey responses was confidential and anonymous.

Since Google Forms were used to collect survey responses, it is important to address the subject of security. According to the NCBI, all data is maintained in the Google cloud which is considered to be highly secure. Security is provided by a login protocol with strong encryption and the data is kept in locations where there is 24/7 manned security. Also, employees undergo comprehensive background checks, and all documents are subject to multiple levels of security (Rayhan et al., 2013).

The hardcopy survey responses have been kept in secure storage and the electronic results (for example, the SPSS data files) have been saved in a password-protected format only on my laptop computer.

There was no conflict of interest since I have no relationship with Texas public school districts. There was also no intention to provide any incentives, other than possible professional gratification of the teachers that they had participated in efforts to counteract the problem of cyberbullying.

Summary

In hindsight, the teachers' survey and the research questions it sought to answer seemed relatively straight-forward. Nonetheless, as yet, no one has attempted to determine the extent of implementation of David's Law in Texas public schools. This merits serious attention as those who will suffer the most from non-compliance are at a disadvantage due to their youth and lack of political influence, yet they are the most seriously impacted by all forms of bullying. Like many other states, Texas chose the public school as the place where bullying, including cyberbullying, should be addressed and specified nine requirements to be enacted. These requirements are stipulated in David's Law passed in 2017. The objective of the study was to determine how many districts implemented all nine requirements, as well as the breakdown of how some districts selected only a subset of requirements, as well as the most significant factor for implementation, and the greatest impediment.

This study was non-experimental, descriptive, and quantitative. It was based on a Web survey of a homogenous probability sample of Texas public school district teachers. The sample consisted of 162 Texas public school districts (out of a total of 1025) comprised of varying numbers of schools and teachers. The survey was brief and unambiguous. It was accompanied by introductory text indicating that the survey was concerned with the problem of bullying, including cyberbullying, and David's Law, and requesting participation (Pazzaglia et al., 2016). Survey responses were collected every week for several weeks until at least 162 responses were received. The Statistical Package for the Social Sciences (SPSS) was where the data from the survey was entered and procedures such as frequency, percentages, and binary linear regressions were performed.

Having laid the groundwork for this study, the next steps consisted of collecting the data to answer my research questions, followed by organizing the data, and finally, reporting my findings. The data was collected via the survey and analyzed by procedures in SPSS. It was hoped that the findings would provide much-needed information about the implementation of David's Law and contribute in some way to positive social change. The details of these processes are presented in Chapter 4 of this study.

Chapter 4: Results

The purpose of this nonexperimental, descriptive, and quantitative study was to determine how many Texas public school districts implemented David's Law which was passed in 2017 in response to the tragic suicide of a young Texas man due to unmitigated bullying. To determine the extent of the bullying, including cyberbullying, problem and implementation of David's Law in Texas public schools, the most appropriate mechanism was to survey public school teachers from a subset of the Texas public school districts. This study was unique because the degree of implementation of David's Law had not been subject to scrutiny and represented a significant step forward in acquiring and understanding the current status of responding to this legislation. Research Questions and

Hypotheses

The Research Questions and Hypotheses that underlie this study were as follows:

Research Question 1(RQ1): How many of the requirements of David's Law have been met?

 H_01 : None of the requirements of David's Law have been met.

 H_{a} 1: One to nine of the requirements of David's Law have been met.

Research Question 2(RQ2): Is there a relationship between a school district's number of students, accountability rating, and per student funding, and the number of

requirements met from the teachers' survey which predicts compliance with David's Law?

 H_02 : there is no relationship between a school district's number of students, accountability rating, and per student funding, and the number of requirements met from the teachers' survey.

 H_a 2: there is a relationship between a school district's number of students, accountability rating, and per student funding, and number of requirements met from the teachers' survey.

Research Question 3 (RQ3): is there a relationship between insufficient time, limited funding, and lack of support, and noncompliance?

 H_03 : there is no relationship between insufficient time, limited funding, and lack of support, and non-compliance.

 H_a 3: there is a relationship between insufficient time, limited funding, and lack of support, and non-compliance.

In addition to the three research questions, I sought to gain a deeper understanding of the perceptions and experiences of the survey respondents by asking open-ended questions, such as whether they believed their respective schools had a bullying, including cyberbullying problem, what were the strategies employed by their districts to implement David's Law, whether they believed that their district's antibullying, including anticyberbullying, policy and procedures were effective, and perhaps, the most telling question of all: were they familiar with David's Law prior to the survey. The answers to these questions helped to paint a more complete and detailed picture of the implementation of David's Law in Texas public school districts. It has been affirmed that asking respondents open-ended questions, even in a quantitative study, can generate a better understanding not only of their answers, but also of their understanding of the questions (Singer, & Couper, 2017).

Chapter 4 was organized as follows: the Introduction which contained the Purpose and Research Questions and Hypotheses, Data Collection, which provided information about the time frame, and characteristics of the sample, Results which described the statistical procedure and findings, and the Summary.

Data Collection

In this section, the details of when and how the data was collected are presented.

Time Frame, Data Recruitment, and Response Rates

The time frame for the collection of this study's data was the period between October and December 2020. The teachers who participated in this research study were asked to participate in a survey posted to several Texas teacher group Facebook pages, including "Texas Teachers", "Texas History Teachers", "Texas Math Teachers", and "Texas Health Science Teachers". Every Texas teacher group Facebook page that I could identify was included in the study. The posts on these Facebook pages invited the teachers to participate by stating that the study's purpose was to determine the degree to which their districts implemented David's Law (which stipulated nine requirements to address all forms of bullying, including cyberbullying, in Texas public school districts). Initial responses arrived quickly, followed by a trickle of replies. A second post served as a reminder of the study's existence and the value of participation relative to the bullying and cyberbullying issue. This resulted in a total of 262 responses and was consistent with the anticipated level of responses as stated in Chapter 3. It should be noted that the survey was conducted during a period wherein there was a pandemic that resulted in many teachers and students engaging in virtual instruction. Whether this impacted response rates cannot be determined. Otherwise, the data collection proceeded as planned in Chapter 3.

Descriptive and Demographic Characteristics of the Sample

No demographic information was obtained from the survey respondents, as this was not relevant to whether or not David's Law was implemented. In addition, this was consistent with reassuring respondents that their confidentiality and anonymity were not jeopardized by taking the survey. The teachers who responded had some commonalities, the most obvious was the fact that they were trained teachers certified by the state of Texas.

In terms of ethnicity, Texas teachers are Hispanic (26%), white (61%), and black (10%), with much smaller numbers of other ethnic groups (Campbell, 2017). The number of women teachers exceeds that of male teachers at the rates of 76% to 24% (Smith, 2020). Approximately 66% of Texas public school teachers have a bachelor's degree and nearly 26% have a master's degree (ALL Education Schools, n.d.). In article by the TEA, it was stated that 19% of teachers left the profession after their first year, 12% after the second year, and almost half by the fifth year (TEA, n.d.). In another article, it was reported that approximately one in three Texas teachers leave their jobs before the 6th year (Zelinski, 2019). This is in contrast to the Economic Policy Institute's statement that

13.8% of U.S. teachers are either leaving their current schools or the teaching profession (Garcia, & Weiss, 2019).

This study employed homogenous convenience sampling. While it can be argued that random sampling produces greater external validity, obtaining a random sample for this study would have been time and cost prohibitive. Also, it has been said that all convenience samples have reduced generalizability versus probability samples, but homogeneous convenience sampling is a definite improvement over conventional convenience sampling in terms of generalizability (Jager et al., 2017).

Univariate Analysis

Since this study is based on binary logistic regression with more than one independent variable, univariate analysis was not applicable.

Results

As stated by Chaudhari (2018), descriptive statistics consist of summarizing certain numbers, for example, *means*, to generate enhanced understanding. The data is not changed or manipulated. In this study, the Descriptive Statistics were generated by SPSS and consisted of the frequencies of the independent and dependent variables for Research Questions 1, 2 and 3, as seen in tables 2-8.

Statistical Assumptions

This study was developed on the basis of the following assumptions:

 The dependent variable in Research Question 2 (met req) was measured on a dichotomous scale.

- The dependent variable in Research Question 3 (did not meet req) was measured on a dichotomous scale
- 3. There were three independent variables (size, funding, and rating) for Research Question 2 and three independent variables (insufficient time, lack funding, and lack support) for in Research Question 3, all of which were nominal and categorical.
- 4. The observations (survey responses) were independent, and the dependent variable had categories that are inclusive but do not overlap (that is, categories are 0 and 1).

Research Question 1: Frequencies

Of the 262 respondents, 135 indicated that they believed their district had implemented the requirements of David's Law (see Table 2). This is only about 51%. This is an obvious indication that either the law was not well implemented throughout the state or that many of the respondents doubted that implementation occurred, a sign that the law did not have as strong an effect as was desired. The Texas public school districts need to redouble their efforts to implement David's Law.

Table 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	127	31.4	48.5	48.5
	1	135	33.3	51.5	100.0
	Total	262	64.7	100.0	
Missing	System	143	35.3		
Total		405	100.0		

Met Req Frequency

Research Question 2: Frequencies

For Research Question 2, the dependent variable was *met req* (calculated in Research Question 1). Its calculated value was 135. Table 3 provides the frequency information for *size*.

Table 3

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Size	Freq	luency	

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	168	64.1	70.6	70.6
	1	70	26.7	29.4	100.0
	Total	238	90.8	100.0	
Missing	-99	24	9.2		
Total		262	100.0		

Based on the above frequency distribution of *size*, it did not have a strong effect on *met req* with a valid percentage of only approximately 29.4%. It did not improve the model consistent with the results seen in Validity of the Model Research Question 2.

The frequency of selection of the factor *funding* is shown in Table 4, Funding Frequency.

Table 4

Funding Frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	207	79.0	87.0	87.0
	1	31	11.8	13.0	100.0
	Total	238	90.8	100.0	
Missing	-99	24	9.2		

Based on the frequency distribution of *funding*, it can be seen that it did not have a strong effect on *met req* with a valid percentage of only 13%. It contributed nothing to the model, is consistent with the results seen in Validity of the Model Research Question 2.

The frequency of the third factor, *rating*, was determined in Table 5 *Rating Frequency*.

Table 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	136	51.9	57.1	57.1
	1	102	38.9	42.9	100.0
	Total	238	90.8	100.0	
Missing	-99	24	9.2		
Total		262	100.0		

Rating Frequency

The valid percent of the frequency of *rating* was only 42.9%. Thus, the *rating* was not chosen to any statistically significant degree and did not significantly improve the model. However, of the three factors, it was selected the most frequently This makes sense as these ratings are determined by the Texas Education Agency (TEA) based on student achievement, school progress, and whether districts are closing achievement gaps among various student groups. When the rating of a district is not favorable (a rating of "D" or "F"), the School Improvement Division of the TEA intervenes (Texas Education Agency, n.d.). Since the ratings are publicly available (posted on the internet), it is important to district superintendents and teaching personnel staff that their district obtains a positive rating. It should be noted that for the 2020-2021 school year, the Texas

Education Agency decided not to issue A-F ratings due to the impact of the COVID-19 coronavirus (Texas Education Agency, 2020). So far, it is fair to say that none of the factors had any real impact on *met req*.

Research Question 3: Frequencies

Table 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	172	65.6	70.8	70.8
	1	71	27.1	29.2	100.0
	Total	243	92.7	100.0	
Missing	System	19	7.3		
Total		262	100.0		

Insufficient Time Frequency

The independent variable *insufficient time* was chosen by only 71 of the

243 respondents (29.2%) who had chosen to answer the corresponding survey question, that is, "What do you believe was the most significant impediment ...?" It is clear that the model was not improved by the presence of *insufficient time* and that the respondents did not believe that failure to meet the requirements was the result of *insufficient time*.

Table 7

Lack Funding Frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	188	71.8	77.4	77.4
	1	55	21.0	22.6	100.0
	Total	243	92.7	100.0	
Missing	System	19	7.3		
Total		262	100.0		

The independent variable *lack funding* was chosen by only 55 of the 243 respondents (21%) who had chosen to answer the corresponding survey question, that is, "What do you believe was the most significant impediment ...?" The model was not improved by *lack funding* and the respondents did not believe that failure to meet the requirements was the result of *lack funding*.

Table 8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	168	64.1	69.1	69.1
	1	75	28.6	30.9	100.0
	Total	243	92.7	100.0	
Missing	System	19	7.3		
Total		262	100.0		

Lack Support Frequency

The frequency valid percent of *lack support* was only 30.9%, that is, was only chosen 75 times out of a total of 243 responses to the question "What do you believe was the most significant impediment ...?" *Insufficient time, lack funding,* and *lack support* did not significantly contribute to *did not meet req*. This may have been due to the fact Research Question 3 had a fourth option, *other*, but while it was chosen 42 times, there was no consistency in the explanations. The "other" responses could be categorized into the following groups:

- inadequate staffing: need more staff, including counselors
- inadequate training: more and better training is needed
- too many initiatives: compete with implementation of David's Law
- cyberbullying most frequent form of bullying, outside scope of teachers

• variations of not knowing the impediments: "I don't know", "not sure", "I am not aware of any"

Statistical Analysis Findings

The results of this study are presented in the order of the three research questions, followed by a review and discussion of the open-ended survey questions.

Research Question 1

How many of the requirements of David's Law have been met?

In Research Question 1, the dependent variable was met req and independent variables were prohibit bullying, procedure notification, investigate, prohibit retaliation, victim actions, counseling, anonymous report, self-defense, and ADA, which corresponded to the nine requirements of David's Law. If chosen by the respondent, they were assigned the value of 1 and if not chosen, they were set to 0. The sum (frequency) of these independent variables per respondent was used to determine the value of met req. Of the 262 responses, 135 had met the requirements. This number, though small, led me to reject the null hypothesis (H₀) that none of the requirements of David's Law have been met.

Research Question 2

Is there a relationship between a school district's number of students, per student funding, and accountability rating, and the number of requirements met from the teachers' survey?

Research Question 2: Validity of the Model

Research Question 2 was subject to binary logistic regression. Therefore, a model was developed using what was believed to be good predictors, for example, *rating*. The model was a logistic model or logit model where the probability of met requirements is one of only one of two options: 0 (met req is false) and 1 (met req is true). This limited choice of outcome variables for the dependent variable is consistent with predictions, that is, either *met req* is true or it is not.

The Omnibus Tests of Model Coefficients produced a *chi-square* of 5.409 on 3 *df*, p > .05. The *p*-value was an indication that the overall model was not statistically significant. This was a test of the null hypothesis that adding the covariates (*size*, *funding*, and *rating*) to the model did not significantly increase my ability to predict *met req*. This indicated a poor model fit.

The results of the Hosmer-Lemeshow Test were $X^2(2, N = 262) = .000, p > .05$, which means the model is a good fit. This seems to contradict the results of the Omnibus Test.

The Classification Table is shown in Table 9, Research Question 2: Classification Table.

Table 9

		Predicted				
		7 or more reqs met				
	Observed		Not Met	Met	Percentage Correct	
Step 1	7 or more reqs met	Not Met	23	94	19.7	
		Met	12	109	90.1	
	Overall Percentage				55.5	

Research Question 2: Classification Table

Of the predicted values versus the observed values, 55.5% were classified correctly. This was not indicative of a very good model. Yet, the predictions of *met req* were significant, at a value of 90.1%. What can be determined is that overall, the predictions for *met req* were very much in line with the actuals, so it can be assumed that one or more of the independent variables or the interaction of one or more independent variables may have had an effect. Thus, the answer to Research Question 2, is that there may be a relationship between a school district's size, per student funding, and rating, and the number of requirements met from the teachers' survey.

Overall, the model for Research Question 2 was a good one when considering the factors that helped to answer the question and refute the null hypothesis. What remains to be determined is which of the three independent variables had the strongest effect. However, there is still reason to suspect the model is not a good one, since the results of the above tests contradicted each other.

Research Question 2: Pseudo R-Squared

The pseudo *R-squared* values were provided in the Model Summary, as follows in Table 10, Research Question 2: Model Summary.

Table 10

Research	Question	2.	Model	Summary
Research	Question	4.	mouei	Summury

		Cox & Snell R	Nagelkerke R
Step	-2 Log likelihood	Square	Square
1	324.462	.022	.030

The independent variables explained 3% of the total variability of the dependent variable (*met req*), which means that 97% can be explained by other factors. However, there was a relationship between the dependent variable and one or more of the factors, that is, *size, funding*, and *rating*. In statistics, a larger *r-squared* value indicates that more of the variation of the dependent variable, for example, met req, is explained by the model. The more variability, the better the model. It is possible that other factors would have had a greater impact than those used in this analysis. What remains to be determined, perhaps in a future study, is what additional factors could be added to improve the model fit, as indicated by the low pseudo r-squared values produced by the Cox and Snell and Nagelkerke tests.

There is reason to suspect that the model is not a good one, since the results of the above tests contradicted each other. What can be seen from the above test results is that determinations of model fit are not consistent, and the goodness of fit is questionable.

Research Question 3

Is there a relationship between insufficient time, limited funding, and lack of support, and non-compliance?

Research Question 3: Validity of the Model

A logistic or logit model was developed using what was believed to be good predictors, for example, insufficient time. The probability of *did not meet req* is one of only two options. This limited choice of outcome variables for the dependent variable is consistent with predictions, that is, either *did not meet req* was true or it was not.

The Omnibus Tests of Model Coefficients produced a *chi-square* of 5.409 on 3 *df*, p > .05. The *p*-value was an indication that the overall model was not statistically significant. This is a test of the null hypothesis that adding the covariates to the model did not significantly increase my ability to predict *did not meet req*. This indicated a poor model fit.

The Hosmer-Lemeshow Test results were $X^2(2, N = 262) = .000, p > .05$, which means the model is a good fit. This seems to contradict the results of the Omnibus Test.

Another way to determine goodness of fit is the Classification Table.

The Omnibus Test of Model Coefficients generated a *chi-square* of 2.842 on 3 *df*, p > .05. Since a significance value of less than 0.05 indicates that the model is an improvement over the null model, it can be stated that this was a case of poor model fit.

The Hosmer-Lemeshow Test had these results: x^2 (2, n = 262) = .000, p > .05, which means the model was a good fit. The Classification Table was generated as seen in Table 11, Research Question 3: Classification Table.

Table 11

		Predicted Did_Not_Meet_Req		
Observed		0	1	Percentage Correct
Did_Not_Meet_Req	0	56	69	44.8
	1	41	77	65.3
Overall Percentage				44.74

Research Question 3: Classification Table

Of the predicted values versus the observed values, the overall percentage was only 44.8%. However, the prediction of *did not meet req* was significant, at a value of 65.3%. This means that the majority of teacher responses (approximately 65%) indicated that their districts did not implement David's Law. This was a disappointing result as it implied that the issue of bullying, including cyberbullying, had not been addressed as specified by law.

Again, the model fit was questionable. Sometimes, the tests indicated a good model fit, other times they did not. A pseudo *r-squared* generated the values provided in the Model Summary, as follows in Table 5, Research Question 3: Pseudo R-Squared.

Research Question 3: Pseudo R-Squared

Table 12

Research Question 3: Model Summary

		Cox & Snell R	Nagelkerke R
Step	-2 Log likelihood	Square	Square
1	333.825	.012	.016

The independent variables explained only 1.6% of the total variability of the dependent variable. The R^2 statistic is an indication of the proportion of the variance in

did not meet req that was explained by the variance in the three factors; the result was that they did not have much of an impact on the dependent variable. As was the case with Research Question 2, a larger *r-squared* value would have indicated that more of the variation of the dependent variable (did not meet req) is explained by the model. When the variability is greater, the model is improved. This suggests that other factors may have resulted in higher r-squared values, thus improving the model. My assumptions that *insufficient time*, *lack funding*, and *lack support*, would result in a model that could reflect reality, was incorrect., since the variability is low and the model is poor.

While collectively the three independent variables resulted in *did not meet req* as equal to 1 (true), it is possible that one or more independent variables, taken separately, might have generated a higher percentage for the variability of the dependent variable, that is, one of the independent variables alone could have had a greater impact than can be seen in this analysis.

Cross-tabulations: Research Question 2

The cross-tabulation of *Size* * *Funding* generated *phi* = -250 and Cramer's V = .250, p < .001. The cross-tabulation of *Size and Rating* produced *phi* = -559 and Cramer's V = .559. The cross-tabulation of *Funding* * *Rating* had the result *phi* = -.335 and Cramer V = .335, p > .001.

From these cross-tabulations, I was able to conclude that there was no multicollinearity. This means that no two of the independent variables, *size*, *funding*, and *rating*, are highly correlated. If that were the case, they would not be significant. In this case, there is no multicollinearity among the independent variables, so they are

significant (Kim, 2019). At this point, I cannot reject the null hypothesis that the independent variables are not related.

Cross-tabulations: Research Question 3

The cross-tabulation of *Insufficient Time* * *Lack Funding* resulted in *phi* = -.348 and Cramer's V = .348, p < .001. The cross-tabulation of *Insufficient Time and Lack Support* generated *phi* = -559 and Cramer's V = .559, p < .001 The cross-tabulation of *Lack Funding* * *Lack Support* resulted in *phi* = -.429 and Cramer's V = .429, p < 001. This means that there was no multicollinearity among the independent variables used to address Research Question 3.

Logistic Regression: Research Question 2

A binary logistic regression analysis to investigate Research Question 2 was conducted. The predictor variable *rating* was found to contribute to the model. The unstandardized beta weight for the constant B = [-.927], SE = [.408], WALD = [5.151], p< .05. OR = .396, 95% CI = [.178, .881]. The effect size was equal to the OR, or .396.

A binary logistic regression was also performed with the predictor variables, *size*, and *funding*. For *size*, the unstandardized beta weight for the constant was B = [-.651], SE = [.429], WALD = [2.301], p > .05. OR = .522, 95% CI = [.225, 1.209]. The *effect size* was equal to the *OR*, or .522. For *funding*, the unstandardized beta weight for the constant was B = [-.715], SE = [.506], WALD = [1.998], p > .05. OR = .489, 95% CI = [.181, 1.319]. The *effect size* was equal to the *OR*, or .489.

I rejected the null hypothesis (H0) - there is no relationship between a school district's number of students, per student funding, and accountability rating, and the

number of requirements met. However, it was surprising that rating was not chosen more frequently. Yet, it was the only categorical variable that established any relationship, while the number of students and per student funding are not associated with *met req*.

Logistic Regression: Research Question 3

None of the predictor variables *insufficient time, lack funding,* or *lack support* was found to contribute to the model. I accepted the null hypothesis (H0) - there is no relationship between the three independent variables and non-compliance. This means that a school district's lack of compliance with David's Law is not related to the three factors. Perhaps a different survey option (with different independent variables) might have produced different results, but the respondents were given the opportunity to supply an alternative by virtue of the "*other*" option, and not one alternative was offered by more than one respondent. This would indicate that the teacher participants could not come to a consensus as to the detriments to implementation of David's Law.

Additional Survey Data

The teachers' survey Research Questions were very informative, but the survey benefitted significantly by the addition of the open-ended questions that provided the respondents an opportunity to speak their minds and elaborate on issues identified by the Research Questions as seen in the following table, Table 13 Open-Ended Questions.

Table 13

Open-Ended Questions

Question	Reassuring Responses	Disconcerting Responses	Analysis
Do you believe your district	18%: no problem, 88%: non-	5%: frequent serious	While bullying and
has a bullying/cyberbullying	serious incidents	problems	cyberbullying occur frequently
problem?			(88%), they are rarely serious.
Does your district have a	57% : yes	31%: the policy/procedures	The districts must increase
policy/procedures consistent		did not fully implement	their efforts to establish
with David's Law for		David's Law, 12%: "did not	policy/procedures
bullying/cyberbullying?		know"	since overall, the results
			indicate a weak compliance
			with this requirement
Which requirements of do you	85%: prohibition of bullying,		The prohibition of bullying
believe were implemented in	76%: anonymous reporting,		should be closer to 100%. The
your school district?	75%: prohibition of		remaining requirements need
(Respondents could chose as	retaliation against those who		implementation or
many options as they wish).	report bullying, 70%:		reinforcement. A new
	identification of procedures		antibullying, including
	for reporting and		anticyberbullying, initiative
	investigating, 68%:		should occur in each district.
	development of a procedure		
	to notify parents, 67%:		
	identification of available		
	counseling, 62%: compliance		
	with ADA, 58%:		
	development of actions		
	victims could take		
What do you believe is the	42%: strong position against	42% is a small number of	The school districts need to
most effective component of	bullying and cyberbullying,	respondents who considered	establish new antibullying and
your school district's	19%: consequences of	prohibition of bullying to be	anticyberbullying initiatives
	bullying/cyberbullying, 17%:	effective	with emphasis on training

Question	Reassuring Responses	Disconcerting Responses	Analysis
antibullying/cyberbullying	reporting requirement,		administration and staff and
policy and procedures?	14.5%: treatment of victims		about the meaning and
	and those who report		importance of each
			requirement
Had you personally observed	62%: "yes"	38%: "no"	Given that nearly two-thirds of
the implementation of David's			the respondents have seen the
Law in their school district?			implementation of David's
			Law, it can be said to have had
			a positive effect.
Were there improvements that	60%: consistency in practice,	Suggestions, such as	The respondents clearly see
could be made to enhance	59%: more precise definition	"lack of follow-through",	the need for improvement.
compliance with policy and	of bullying/cyberbullying,	"try not to cover issues",	Administrators may not be
procedures? (Respondents	58%: regular reminders, 62%:	"truly anonymous	aware that compliance could
could chose as many options	more precise articulation of	reporting"	be better. Periodic reviews
as they wish and also	consequences		and/or discussions with staff
suggested others.)			to identify/understand
			perceived causes of inadequate
			compliance would likely
			produce improvements.
What strategies did your	65%: training: 35%, printed	Responses such as "Not	Since the degree of the
school district use to	materials: 34%, district	applicable as David's Law	districts' compliance is
implement David's Law?	software/internet	was not implemented":	perceived as inadequate, as
(Respondents could chose as		11%, "none": 10%	part of a new initiative,
many options as they wish			additional or different training,
and also suggested others.)			and the potential use of
			antibullying, including
			anticyberbullying, software
			should be considered.
Prior to this survey, were you		49%: somewhat, 29%: very	This is the most revealing
familiar with David's Law?		familiar, 21%: not at all	question in the survey as it

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clearly indicates the need to

Question	Reassuring Responses	Disconcerting Responses	Analysis
			launch a new campaign with
			1 0
			emphasis on training, that is,
			educating the educators.

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Given the survey responses, it is likely that too much time has lapsed since David's Law was passed (2017). Initial implementation efforts, even where wellexecuted, need to be reinforced, and people need reminders of why the law was passed and its importance.

Summary

This study was designed to obtain answers about the implementation of David's Law in Texas public school districts. The results of the statistical tests are based on a survey of Texas public school district teachers.

Overall, it seemed that the implementation was not as thorough or effective as it could have been. The districts that met the requirements (seven or more) were only about half of the total. The only significant factor for implementation was the TEA Accountability Rating. None of the survey impediments were selected and even among the open-ended responses, there was no consistency in what was thought to be detrimental. Some of teachers' suggestions were related to staffing. When new requirements are imposed on school staff, instructional time is compromised unless the teachers are provided with resources to respond to both the program and the educational needs of their students. Several of the survey respondents indicated that a stronger participation of counselors was needed, as well as better training of teachers. In an article about school counselors and their roles and responsibilities relative to bullying prevention, the authors described a study they conducted consisting of 228 school counselors from 27 different states at all levels (elementary through high school). They were asked to describe their perception of their role in the prevention and response to incidents of bullying, including cyberbullying. They indicated that while eager to support these efforts, they were underutilized in schoolwide bullying prevention. In addition, this study highlighted that teachers are often uncertain and lack confidence relative to bullying and would benefit from assistance from experts, including school counselors. What is unfortunate is that the school counselors revealed that their principals did not view them as having an important role in addressing bullying (Swank et al., 2019). Thus, while it is important that counselors collaborate with parents and teachers, they have limited encouragement to do so. Since this may well be the case in Texas, it may justify the comment about inadequate staffing.

In a qualitative study described in an article about middle school students and teachers, the researchers conducted interviews and focus groups with teachers, students, a school counselor, and program facilitators. Based on these efforts, the researchers stated that school counselors have the capability of taking on a significant role in bullying and cyberbullying prevention, by talking with and interacting with teachers and providing a sounding board on topics such as when and how to intervene in bullying/cyberbullying incidents, as well as assisting in the classroom, and generating greater teacher participation in school-wide antibullying programs (Smith-Adcock et al., 2019).

An interesting comment to the open-ended questions was that administrators did not comprehend the difference between emotional support of students who bully and enabling them. Also mentioned was that administration often failed to acknowledge both the frequency of bullying and cyberbullying and its severity. It should be noted that time constraints apply not only to teachers but also to the administrators. Government standards for student achievement demonstrated by standardized tests often result in administrators having little time for problems such as bullying, including cyberbullying.

Better training and reinforcement would probably alleviate some of these problems. Another interesting point was made that because of the Covid-19 pandemic, focus was shifted to other issues related to the virus. Now that the survey has been completed, data collected and analyzed, it is worthwhile to revisit some of the concepts presented in earlier chapters, as well as to identify study limitations, validity, generalizability, reliability, and recommendations, as will take place in the next chapter.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to ascertain the status of implementation of a law known as David's Law, which was passed in Texas in 2017. This piece of legislation was the result of the tragic suicide of a young man due to cyberbullying. Because of community concern and the prevalence of bullying/cyberbullying in the United States and worldwide, the passage of David's Law was inevitable. The specific requirements were aimed at the school environment where much of this type of behavior originates and takes place on a nearly daily basis. Since bullying, including cyberbullying, has resulted in severe negative consequences for the victims, like David Molak in Texas, and often, even the bullies and observers, Texas followed the lead of other states (for example, Georgia, North Dakota, and Connecticut) and passed David's Law. It is important that the Texas Department of Education (the TEA) and the Texas Legislature provide schools with direction and oversight of the implementation of the mandates of this legislation. It is my belief that simply passing a law and not monitoring the status of the school districts relative to compliance falls short of an effective state posture to combat the problem of bullying and cyberbullying. Since more than 3 years have passed since David's Law was passed, and little, if any, information about the status of implementation has been made public, a study seemed appropriate.

It was determined that a survey of Texas public school district teachers could yield timely and comprehensive information as to the status of implementing David's Law. The survey queried teachers about their perception of the degree to which the law was carried out in their districts. The three research questions of this study sought to identify how many of the nine requirements of David's Law the teachers believed were put into place, as well as what they thought were the factors that facilitated or hindered implementation. They were also asked open-ended questions that might provide additional information to paint a clearer picture of the status of bullying, including cyberbullying, in Texas public schools.

Survey Results

The survey yielded answers to the study's research questions as follows:

Research Question 1

How many of the requirements of David's Law have been met?

Results

Of the 262 district responses, 135 had met the requirements, meaning they indicated that they had implemented seven or more of the requirements of David's Law. This number, though small, led me to reject the null hypothesis (H_01) that none of the requirements of David's Law have been met.

Research Question 2

Is there a relationship between a school district's number of students, per student funding, and accountability rating, and the number of requirements met from the teachers' survey?

Results

Only the accountability rating was shown to have an impact on the implementation of David's Law. The null hypothesis (H_02) was rejected.

Research Question 3

Is there a relationship between insufficient time, limited funding, and lack of support, and non-compliance?

Results

None of the independent variables (insufficient time, lack funding, and lack support) had a significant relationship with did not meet req. Thus, the null hypothesis (H_03) was accepted.

Detailed Findings

The key findings were that David's Law was implemented as specified in the survey. In other words, seven or more of the requirements were selected by the respondents, but only in about 50% of the Texas public school districts. The requirements were chosen as follows:

- prohibition of bullying: 85.8%
- anonymous reporting: 76.2%
- development of a procedure for parental (or guardian) notification of bullying: 74.7%,
- procedures for investigating and verifying reports: 69.7%
- identification of available counseling: 67%
- compliance with the Individual with Disabilities Education Act, when disciplining a student with disabilities: 61.7%
- development of actions victimized students can take to obtain assistance and intervention: 68.6%
- prohibition of disciplinary measures on a student who is a victim of bullying and used reasonable self-defense: 40.2%.

Interpretation of the findings

Since the results of the statistical analysis have been generated, it is appropriate to subject them to analysis and interpretation. An interesting aspect of the teachers' responses was an indication that bullying, including cyberbullying, was not well defined or understood, especially by the students. An answer to one of the open-ended questions

that sought to identify potential improvements to enhance compliance to David's Law was to develop a more precise definition of bullying and cyberbullying. This reinforces what was stated in Chapter 2 that there is still no standard definition of this behavior.

This study found that 51% of the school districts implemented David's Law and that the accountability rating was the only factor (versus size and funding) related to the implementation. Of the factors proposed as possible detriments to the implementation of David's Law (insufficient time, lack of funding, and lack of support), none was shown to have statistical significance. The open-ended questions provided additional relevant information. The responses to these questions suggested that the law was not well-known, and that the implementation was not perceived to have been adequate.

While seeking general information about the implementation of states' antibullying and anticyberbullying laws, it was found that there is considerably more researcher focus on the impediments than on the positive factors. A closer look at the factors in this study follows.

Facilitators

Number of Students. My original belief was that school size might facilitate implementation of David's Law due to greater community and educator concern about possible increased bullying/cyberbullying resulting from more students. In an article published in 2017, the authors affirmed that the size of a school is associated with increased bullying, including cyberbullying. When there is a large number of students, there are more bullying incidents (Bevilacqua et al., 2017). In addition, in a study by researchers Hall and Chapman regarding implementation of the North Carolina antibullying statute, it was determined that school size was detrimental to the implementation of the law and that as the size of the student body increased, the degree of implementation decreased (Hall, & Chapman, 2018). In an article by the researcher Nikolaou, he stated that the average student-teacher ratio (class size) is a good indicator of school quality, but that larger schools may experience more bullying due to the simple fact that there are more students (Nikolaou, 2017). This would also support the notion that school size may be a detriment rather than a facilitator of the implementation of antibullying/cyberbullying legislation. It is possible that since additional funding was not allocated for David's Law, the size of the student body and subsequent need for additional effort did not have a positive effect on implementation of David's Law, as perceived by the teachers who responded to the survey.

Per Student Funding. It would be easy to assume that given the additional responsibility and effort needed to implement David's Law, Texas would have provided additional funding for this purpose. However, the state of Texas is not known for providing adequate funding to educate its students. In fact, there is a significant gap between per-pupil spending and the national average. The correction of this level of funding would require that per-student spending be increased for the highest poverty students by a factor of 2.4 times the current level. Consistent with this low degree of state financing for public school districts, Texas funding for its largest school districts (the Houston Independent School District and the Dallas Independent School District) is well below the national norm (Binkovitch, 2018). In an article posted in 2018, the authors stated that the Texas Education Agency submitted a budget request that predicted a \$3.5
billion reduction in state funding in the coming years. While the student population has continued to grow, state funding has decreased at a faster rate. This may be due to the fact that existing law mandates that the state rely on anticipated increases in property taxes to provide funding for education versus state involvement (DeMatthews, & Knight, 2018).

Given that Texas public school districts are already burdened by insufficient funding, it is not surprising that the teacher respondents to the survey did not indicate that per student funding was a factor in implementation of David's Law.

Rating. Of the factors that were addressed by Research Question 2, that is, funding, school size, and the school district rating, the rating was chosen the most frequently, although still not significant (p > .05). The fact that the Texas Education Service Center (ESC) rating is published annually on the internet may be an incentive for school district administrators and educators to implement and follow David's Law to maintain the school district's positive image.

While the Education Service Center ratings are probably the most influential and well-known, a national rating service, Niche, produces a yearly "K-12 School and District Rankings" which includes Texas schools. Niche provides data about the best places to live, schools, school districts, universities, and colleges. The school ranking factors used by Niche include racial and economic diversity, and resources and facilities, the latter of which are based on chronic absenteeism, suspensions/expulsions, bullying, including cyberbullying, affect school attendance, as well as suspensions and expulsions, they are reflected in the Niche ratings. In addition, because these ratings are often used by

prospective newcomers to Texas, they can influence their home purchasing decisions and choice of neighborhoods. These ratings can serve as powerful incentives for families to choose specific areas in which to live where problematic behaviors are significantly limited. This causes demand for housing in such areas to increase, drives up property values, and eventually flows back to the schools in funding via property taxes. While this may increase funding to some extent, it is still inadequate. However, the availability of the ratings on the internet can influence teachers' perceptions that rating is an important factor for implementation of David's Law.

The Education Research Center of the University of Texas at Austin examined their database which contained 10 years of administrative data in an effort to ascertain the status of Texas teacher turnover. They affirmed that there were considerable differences in instability in schools that differed in poverty levels and that the greatest differences were between schools with the highest and lowest accountability ratings (Holme et al., 2017).

Texas public school administrators and educators can be demoralized by poor ratings by the Education Service Centers and Niche. Given that the rating was chosen more frequently than the other factors, while still insignificant, it can be seen that teachers consider this an important aspect of how they are perceived, and thus they place value on ratings.

Impediments

Of the impediments, insufficient time, lack of funding, and lack of support, none was statistically significant. Also mentioned in the open-ended responses, some of the teachers asserted that the problem of bullying, including cyberbullying, was exacerbated by the fact that parents often lack understanding and knowledge of the bullying/cyberbullying activities that involve their children, as either perpetrators or victims. The parents may also be unaware of the possible outcomes of bullying, including cyberbullying. The factors that were considered potential impediments in the survey are described in more detail in the sections that follow.

Insufficient Time. The role of insufficient time as an impediment to implementation of David's Law should be considered. While in an article published in 2018, the authors stated that there have been few studies of the impediments or facilitators of antibullying implementation, they did describe a study they completed. They collected data from over 500 educators in more than 300 schools to ascertain the status of implementation of school bullying policies. They determined that a number of factors, such as a lack of understanding, insufficient personnel, a dearth of support from parents and school administrators, and time constraints contributed to inadequate implementation of statewide bullying/cyberbullying laws (Hall, & Chapman, 2018). Competing demands on student and teacher time, such as standardized testing, also limit teachers' time to address social-emotional and behavioral issues, versus academic material. In an article that dealt with barriers to implementation of antibullying and anticyberbullying policy, the author affirmed that a lack of time due to multiple priorities and rules stemming from teacher contracts, curriculum requirements, or a strong focus on academic accomplishment have impacted the available time to proceed with implementation (Moore, n.d.). In an article about what limits the effectiveness of

antibullying and anticyberbullying programs, the authors described their study in which the approach that was both quantitative and qualitative. The study was conducted in 21 schools with participation by 18 principals and over 100 teachers, The authors concluded that implementation of antibullying/cyberbullying programs is hampered by limited time, training, and support (Cunningham et al., 2016). With the information gleaned from the above studies and the fact that insufficient time was chosen by only 72 teachers (29.3% who responded to the survey), it is surprising that it was not selected by more Texas teachers as an impediment to implementation.

Lack of Funding. Another factor that was considered to be detrimental to implementation of David's Law was lack of funding. In the book "Preventing Bullying Through Science, Policy, and Practice", it was affirmed that state antibullying/cyberbullying laws are rarely funded. Even though the provision of a safe learning environment is a responsibility of the school, many states require the school districts to perform additional tasks, such as training, without additional funds (Rivara, & Le Menestrel (Eds.), 2016). In a 2016 article by Cornell and Limber, the authors concurred that successful implementation of state antibullying laws is hampered by the lack of funding. In another article, the author claimed that the program, "Stop Bullying" has not been implemented successfully, again because of a lack of funding. As noted by teachers, school supplies are always needed and consume a large part of the available funds (Lynch, 2016).

The role of unfunded mandates such as David's Law was subject to research at the University of Texas at Austin. In Texas, the hidden cost of practices such as the use of average daily attendance for allocating school funds, resulted in school funding based on attendance, rather than total enrollment. When bullying and cyberbullying impact children to the point that they do not attend school, Texas school districts are not only required to absorb the additional cost of implementing David's Law, but also experience reduced funding due to average daily attendance (UT NEWS, 2017). In a "Policy White Paper" by the Committee for Children, this loss of funding was also noted. The article stated that states where funding is based on daily attendance rates (for example, Texas), schools can suffer the loss of millions of dollars because of bullying-related absences (Committee for Children, 2017).

Since providing a safe learning environment is a fundamental school responsibility and thus should be funded, antibullying/cyberbullying laws such as David's Law require additional teacher and personnel effort, including training. This imposition of additional tasks, without added funding places implementation in a tenuous position.

While it appears that a lack of funding can be a serious detriment to successful implementation of state antibullying, including anticyberbullying legislation, the Texas teachers' survey responses indicated that they did not believe that this was a factor detrimental to the implementation of David's Law (54 teachers or 22%).

Lack of Support. A lack of support seemed to be a likely candidate for consideration as a detriment to the implementation of David's Law. In a study that identified the perspectives of teachers relative to antibullying programs, it was stated that teachers believed their colleagues' lack of support of antibullying/cyberbullying programs affected their commitment and had a negative impact on program success. They also identified a lack of support from some of the parents whose children were bullying/cyberbullying perpetrators which also compromised the implementation of antibullying, including anticyberbullying programs, and led to reduced commitment. Since parents play an essential role in their children's development, they should be working closely with school staff to assure the effectiveness of antibullying and anticyberbullying programs (Davis, & Bourne, 2016). Lastly, the teachers asserted that when they attempted to respond to bullying/cyberbullying incidents, students were uncooperative or even threatening (Cunningham et al., 2016).

In an article that discussed the effectiveness of antibullying and anticyberbullying programs, the authors reported that teachers identified a lack of support from their principals, their colleagues, as well as parents (Cunningham et al., 2016). This lack of support was one of the factors that possibly hindered implementation in Texas (Research Question 3) but was not chosen enough to be significant.

All in all, the results of the survey were disappointing with only 51% compliance and a lack of reasons why the teachers felt that implementation was so limited. In 2020, the Cyberbullying Research Center issued an article about authoritative school climate, the theoretical foundation of this study. The article stated that schools with authoritativeness, that is, solid structure and support, have experienced less bullying and violence, leading to academic improvement, less truancy and dropping out of school, and improved morale (Hinduja, 2020). Perhaps a future study, for example, a qualitative study with interviews may generate more data on the subject of the implementation of David's Law. However, it may be worthwhile as a prelude to another study that the Texas legislature issue reminders of the law and the need for full participation by the school district administrators, principals, teachers, other school personnel, and parents. Dealing with bullying, including cyberbullying, is a non-trivial task and requires the commitment and effort of all those who are involved with the public education of Texas children.

Given that studies have identified lack of support as a problem impacting successful implementation of antibullying and anticyberbullying laws, it is surprising that the present study did not result in more teacher responses indicating the role of lack of support as a detriment to implementation of David's Law, since only 78 or 31% of the respondents chose lack of support as an impediment.

Implementation of AntiBullying Laws and School Climate

In Chapter 2, the theory of authoritative school climate was introduced. This theory is inherent in David's Law, but has yet to be fully embraced. In Chapter 2, the authors Brand, et al., indicated that there was a need for a teacher measure of climate. They stated that academic performance improved when teachers promoted positive peer relationships with their students, with the additional benefit of reduced behavioral and safety problems. An interesting response to the current survey relative to how improvements could be made was "more time to follow up with students" and "reduced class sizes to make it easier to conference with students". This suggested that the teachers are seeking positive peer relationships but must face obstacles, such as inadequate time and large class size.

The Texas Education Agency is well aware of the importance of a positive school climate as evidenced in an article in about schools and positive school climate. They list a number of resources that can be used to establish a safe school environment, including the Cyberbullying Research Center and the Olweus Bullying Program, both of which have been discussed in this study.

Consistent with the concept of positive school climate is the fact that one of the Texas public school districts launched a "be kind" initiative that teaches online etiquette. Each month, the Grand Prairie Independent School District focuses on a theme related to efforts to teach students about kindness. The students, school staff, and the community are encouraged to reach out to each other with kindness, compassion, and respect (Grand Prairie Independent School District, 2021). Perhaps launching similar programs in other districts would facilitate their progress in implementing David's Law. When programs such as the "be kind" initiative are established and embraced, positive changes in attitude and behavior are likely to take place. I believe that such programs affirm that a positive school climate, consistent with the theory of authoritative school climate, plays a powerful role in bringing about success in carrying out the requirements of David's Law.

Follow-up on State Antibullying Laws

Follow-up on state antibullying laws has not been as extensive as desired. Nonetheless, there have been some efforts to evaluate post-implementation results. In 2015, researchers conducted a cross-sectional study of 924 educators' perceptions of the severity of bullying, including cyberbullying, and school climate both before and after passage of New York's antibullying legislation. They found that fidelity to the state mandates resulted in educator perceptions that the severity of bullying/cyberbullying was reduced, the school climate was improved, and the school antibullying and anticyberbullying practices were acceptable. The researchers placed emphasis on the concept of school climate which they associated with positive outcomes such as increased student engagement, higher graduation rates, and reduced staff turnover. They stated that greater alignment with state regulations was associated with perceptions of a more positive school climate (Cosgrove, & Nickerson, 2015).

In 2017, an article was published that described a systematic review of studies that addressed the effectiveness of school bullying/cyberbullying policies. This review consisted of searches of 11 bibliographic databases and identified 21 studies for evaluation. Results were mixed, except that schools with ant-bullying and anticyberbullying policies that specifically offered protection for lesbian, gay, bisexual, transgender, and queer (LGBTQ) students experienced reduced bullying victimization of these students. The author concluded that policies must be based on evidence and theory and implemented faithfully. Overall, he concluded that more research is needed (Hall, 2017).

In a 2017 article, the author described a study he conducted using data from all 50 states and the District of Columbia for the years 2002-2010. He derived the information from the School Survey on Crime and Safety (SSOCS), which is a biennial survey about school safety. He found that implementation of an antibullying law in a state reduced the probability of bullying/cyberbullying approximately 8.4%. In addition, the positive results were greater when the state law specifically defined bullying/cyberbullying,

required reporting of bullying incidents, and included disciplinary actions against bullies (Nikolaou, 2017). This provides assurance that David's Law, which includes a definition of bullying, a requirement for reporting, and disciplinary actions, has the potential to be effective.

In an article about fidelity of implementation of antibullying and anticyberbullying policy by Hall and Dawes (2019), it was stated there has been little research on the implementation of antibullying/cyberbullying policies in schools. The authors carried out a literature review to identify the degree to which an antibullying/cyberbullying policy was implemented and the results. This study found that higher levels of implementation of strategies associated with a state antibullying/cyberbullying law predicted lower levels of bullying/cyberbullying severity, lower levels of harassment based on protected classes (for example, race, gender, and disability), and an improved sense of school climate. Given that this was the only study found in the literature to examine fidelity of policy implementation with bullying and cyberbullying outcomes, more research is needed in this area.

In the responses to the current study's teachers' survey, participants made a number of interesting comments, but there was little consistency among them, possibly indicating that the implementation of David's Law was perceived differently by teachers across the state, which is not surprising in a state as large as Texas.

Limitations of the Study

This study, as all studies, was not without limitations. As stated in Chapter 1, this study was based on perception, that is, the beliefs and understanding of the Texas public

school district teachers. Perception is affected by several factors, including past experience, prior knowledge, feelings, and preconceptions. This suggests that the teachers' responses may not be completely in line with reality. They were not asked to provide specific examples of bullying/cyberbullying and the implementation of David's Law in their school districts. However, it was anticipated that teacher perceptions would be based on in-classroom experience, that is, direct observation. However, during the time of the study, there was an ongoing pandemic, Covid-19. This affected school attendance, since many classes were conducted online, potentially limiting teachers' direct exposure to children and their classroom behaviors. In addition, a larger sample, that is, more than 262 respondents might have yielded improved results. Since time and expense to conduct the survey affected me as a researcher, it is possible that obtaining a random (versus homogenous convenience) sampling might also have generated a different set of responses. Another possibility could have been a qualitative study where face-to-face interaction might have produced more detailed responses and explanations. Yet another limitation was the lack of previous studies to provide insights into bullying, including cyberbullying, legislation and implementation. It can only be hoped that future studies will be conducted and that the present study will prove informative to the researchers.

Generalizability

Generalizability is the extent to which findings from a sample can be applied to the population from which the sample was drawn. The teachers' survey was designed with the intent to use a representative sample of Texas public school district teachers to collect data about the implementation of David's Law. In this study, the sample consisted of 262 respondents. Generalizability means that their answers reflect the entire population of Texas public school district teachers. While selection bias was possible, every effort was made to post the survey to as many teacher group Facebook pages as could be identified. The recruitment process, the sampling, and sample size calculation were clearly specified earlier in this chapter in the section "Descriptive and Demographic Characteristics of the Sample". The recruitment for the teachers' survey is consistent with an article about conducting Web surveys where the authors refer to the growing use of social media which is seen as offering new approaches for recruitment. These include using Facebook or similar social media sites (Schonlau, & Cooper, 2017). The generalizability of the teachers' survey could be reduced if the convenience sample used for data collection did not have access to the internet. In this study, the respondents are teachers and therefore use the internet on a regular basis. Nonetheless, it is possible that some Texas teachers do not use teacher group Facebook pages. However, this may have been offset by the possibility of snowball sampling where one or more teachers mention the survey to their colleagues. Overall, given the choice of a Web-based survey, a degree of generalizability is possible.

Validity

Validity has been described as the property of an instrument to generate a measurement that correctly reflects an underlying construct. There should be an alignment of the theory (in this study, the theory of authoritative school climate) and the survey to produce a valid measurement and facilitate replication. According to Hedges

(2019), replication means that another researcher can derive the same results when new data is obtained when attempting to repeat a study. There are multiple forms of validity, the first of which is face validity which refers to researchers' subjective evaluations of the presentation and relevance of the survey, that is, do the survey items seem relevant, appropriate, and clear? In designing the survey for this study, every effort was made to ensure that it met these requirements. Three Texas teachers were asked to review the survey questions to verify face validity.

Content validity involves assessment of a new survey to ensure it includes all essential items and excludes undesirable ones (Taherdoost, 2016). This was considered when the teachers' survey was designed. Extensive research into survey design preceded the actual construction of the teachers' survey. Since the study sought information about the implementation of David's Law, the survey questions specifically referred to the requirements of this legislation and did not include any text that was not related to this topic.

Construct validity is the determination of whether a survey measures the concept that it is intended to measure. Constructs are intangible and are not well measured by a single question (Morrison, n.d.). As stated in an article that described the four types of validity, the author stated that a construct is a concept that is not directly observable, but which can be measured by recognition of associated indicators (Middleton, 2019). Thus, a preferred way to measure constructs is by asking questions that address aspects of the construct. The answers to these separate but related questions can be combined to develop a score. In this study, the underlying concept is compliance to David's Law. The survey questions were designed to assess the degree of compliance with David's Law by referring to the indicators of compliance, for example, "Does your school district have a policy and procedures relative to bullying/cyberbullying?". This question referred specifically to policy and procedures which are clearly indicators of the concept of compliance to David's Law. Thus, the survey had construct validity.

Reliability

When information is sought from a group of people, for example, Texas public school district teachers, the tool employed must be reliable. In this study, the tool was a survey. Survey research is considered to be a reliable method of investigation (DeCarlo, 2018). The reason for this is that surveys are standardized, that is, they ask all participants the same questions with the exact same wording.

When reliability data is sought, the most common approach is test-retest. While the test-retest can generate reliability data, it is not practical to conduct a retest as part of this study. Internal consistency reliability is an indication of the degree to which test measure the same thing, that is, compliance with David's Law. Since I ensured that all survey questions specifically refer to compliance with David's Law, there is internal consistency.

From a purely statistical perspective, reliability can be determined by calculating the correlation or reliability coefficient. Because this study involved dichotomous independent variables, a Pearson Correlation to derive Cronbach's alpha, the most generally used correlation coefficient, was not appropriate. Therefore, a cross-tabulation to obtain phi was performed, consistent with nonparametric data which cannot be assumed to have a normal distribution and require nonparametric tests. Unfortunately, there is a dearth of research about the translation of the phi coefficient to the alpha coefficient. The best information available was located in an article about SAS and SPSS macros to calculate standardized Cronbach's alpha. The authors stated estimation of Cronbach's alpha for a scale with dichotomous items can be improved by using the upper bound of phi and that there are SAS and SPSS macros to computer Cronbach's alpha (Sun et al., 2007). The use of these macros is beyond the scope of this study. Given this limitation, I highly recommend that a future researcher conduct a test-retest. However, I believe that this study and the survey results are reliable since they are based on the requirements of David's Law.

Recommendations

The problem of bullying, including cyberbullying, has a long history and is likely to continue well into the future. This applies to Texas public schools, as well as schools worldwide. The passage of David's Law and its subsequent implementation, however limited the implementation has been as indicted by the teachers' survey, should be just the beginning of the effort to overcome the problem. Therefore, I have added a few recommendations to this study as follows.

Recommendations for Future Research

Human behavior is dynamic, and this is true of children and adolescents. While bullying, including cyberbullying, is likely to endure, no single study should ever suffice to render a clear picture of how well antibullying and anticyberbullying laws, such as David's Law, have been implemented. Another study, perhaps a qualitative study, is needed. If a qualitative study were performed, interviews and focus groups could generate more detailed information about the status of implementation. This can be inferred from the open-ended answers to the teachers' survey, and it is reasonable to assume that more information could be gleaned from one-on-one or group sessions.

It is also possible that the timing of the current study was not optimum due to the fact that a pandemic required many schools to offer virtual instruction. There is also the question "who are the best candidates for survey participation?". In this study, the participants were Texas public school district teachers, but if a new study could be based on principals' or other administrators' input, the results may be different. However, due to ethical concerns about queries related to conformity with legislation, this may not be feasible.

Thus, a future study that provides for rigorous evaluations of effectiveness is recommended (Menesini & Salmivalli, 2017). I further suggest that such an evaluation be conducted with the theory of authoritative school climate as the guiding force.

Policy Recommendations

The mere fact that there is a program or policy in place in a school district does not mean it is effective. In an about the effectiveness of policy interventions for school bullying and cyberbullying, it was suggested that policy content analysis may be useful in a determination of high- and low-quality policies (Hall, 2018). Given that the Texas legislature created the statute, it seems appropriate that Texas commission a study manned by a team of persons knowledgeable about both bullying, including cyberbullying, and legal issues. Such a team could review representative samples of Texas public school district antibullying and anticyberbullying policies, publicize the results, and issue mandates consistent with the findings. In addition, the state of Texas could begin the task of revising David's Law, such that it provides guidelines for the development of policies.

It could be stated that the passage of David's Law was symbolic, that is, a gesture to alleviate mounting public concern about the safety of school-aged children. This law was a response to community pressure that followed the death of David Molak. It was a start, but only a start. The efforts to meet the requirements of David's Law must be supported at the very least, with state funding. Additionally, the lack of follow-up, such as school visits and regular reporting, was an unfortunate reflection of a less than serious state response to the well-being of its young people. As with any law, there must be mechanisms for enforcement, or the well-intentioned gesture of passing the law will be followed, over time, by very mediocre results.

In the meantime, and subsequent to any revisions of David's Law, it is recommended that the state issue a strong and clear reminder of David's law, as well as begin enforcement of the law with school inspections and/or at least, regular compliance reports from the districts. Also, I suggest that compliance be included as a specific element of the TEA Accountability Rating. If enforcement by means of inspections and reports were to occur, the results could be included in the rating, which would greatly strengthen the impact of David's Law. Another way to improve school districts' response to David's Law would be to include the status of antibullying and anticyberbullying efforts in the regular principal evaluations. As suggested by some of the survey respondents, the support of the administration and improved teacher antibullying, including anticyberbullying, training should also occur. In fact, the addition of bullying and cyberbullying to teachers' continuing education programs would be an excellent way to improve ongoing teacher knowledge and awareness. Education of the community, especially the parents, is critical, since all too often they are either unaware or have priorities other than addressing the bullying, including cyberbullying, problem. The development of a school culture that promotes and expects certain values and beliefs can result in more positive behaviors in the school community and prevent a culture of dysfunction (Van Clay, 2018). This directly reinforces what was mentioned in Chapter 1, that is, the philosophy of Arthur Perry who in 1908 addressed the impact of school climate on how children learn.

The National Association of School Psychologists issued a brief in which they provided a framework for education agencies and school administrators to assist in the implementation of effective and lasting antibullying and anticyberbullying programs. The framework included regular oversight and assessment of the program and the institution of consistent procedures for prevention and intervention (National Association of School Psychologists, n. d.).

Given the risks of bullying/cyberbullying for both the victim and victimizer, and the negative impact on society as a whole, it is urgent that legislation such as David's Law be fully implemented in the spirit of the theory of authoritative school climate. If this occurs, Texas schools will be safer, children will not fear attending school and be more academically engaged, and the community, now and in the future, will be better able to focus on critical social justice issues.

Lastly, while there are no specific federal laws prohibiting bullying, including cyberbullying, the federal government website, stopbullying.gov, managed by the U.S Department of Health and Human Services provides information from various government agencies relative to bullying and cyberbullying. It is a good source of information for parents, educators, and communities who want to address the detrimental practices of bullying and cyberbullying. At this site, one can learn about state laws and policies, locate media for young people, and identify practices to increase school safety (Stopbullying.gov, 2018).

Social Justice

Bullying, including cyberbullying, is part of a larger picture of social injustice, and often motivated by dislike of others whose gender, race, poverty level, sexual orientation, body image, disabilities, and other characteristics, are different. Effective implementation of David's Law is an essential component of social justice that can influence behavior both in the present and the future of Texas students. There is a relationship between the damaging effects of school bullying, including cyberbullying, and social injustice, with repercussions for the mental health and well-being of those involved. Bullying, including cyberbullying, is an indication of social injustice of particular relevance for school-aged children (Polanin, & Vera, 2013). While it is not realistic to expect bullying and cyberbullying to be eradicated, it is within the realm of possibility that it can be greatly reduced in Texas public school districts

Implications

Given the importance of school safety and the harmful and occasionally dire consequences of bullying, including cyberbullying, much work needs to be done. This is true of the Texas public school districts whose teachers responded to this study's survey, and possibly of all Texas public school districts. By their selections, they indicated that prohibition of bullying, anonymous reporting of bullying, and procedures for notification of parents of incidents of bullying had been implemented in their schools at the rate of 85.8%, 76.2%, and 74.7%, respectively. This is good news, even in light if the fact that overall, teachers' responses did not reveal successful implementation of David's Law (51%).

As indicated by the teachers in their responses to the question "Were there improvements that could be made to enhance compliance with policy and procedures?", their selection of responses was revealing. The most frequently chosen answers were consistency in practice, more precise definition of bullying and cyberbullying, and more precise articulation of consequences. The first, consistency in practice of educators towards bullying was mentioned in a study of middle school teachers' perceptions of bullying, including cyberbullying. The researchers surveyed 21 teachers, of whom several commented on inconsistency in teacher bullying/cyberbullying responses. They revealed that often, teachers would pass bullying, including cyberbullying, problems on to the guidance counselor. These researchers affirmed that the successful development of a consistent antibullying and anticyberbullying program is based on teachers and administrators working together to improve conditions for their schools and students (Waters, & Mashburn, 2017). Thus, the Texas teachers' concern about inconsistent practices is not unfounded and strongly suggests the need for greater cooperation between administrators and teachers.

A more precise definition of bullying, including cyberbullying, was also cited as needed by the Texas school district teachers who responded to the survey. While the definitions of bullying and cyberbullying usually include aggression or intent to harm, inequality of power, and repetition, ambiguity remains. For example, aggression in bullying needs to be distinguished from ordinary play and teasing where there is no intent to inflict harm. Also, the children who participate in bullying and cyberbullying may not realize their harmful potential and not even consider them bullying (PREV Net, n.d.). In an article about bullying across the life span, the authors indicated that there were unknowns about aspects of the definition of bullying, including cyberbullying. For example, how does one the determine a power imbalance between bully and victim? While this may be a factor in situations where the victim is unable to defend himself or herself, it may not be an easy feat to recognize true differences of power in relationships, especially when adolescents' relationships are constantly changing (Bradshaw, 2017).

The surveyed Texas teachers also mentioned that a more precise description of the consequences of bullying/cyberbullying was needed to ensure implementation of David's Law. In an article about bullying and cyberbullying prevention, which included a summary of the Report of the National Academies of Sciences, Engineering, and Medicine, it was stated that while legislation has been passed on multiple levels, including federal, state, and local governments, and programs have been implemented,

many of the efforts were launched with insufficient attention to what is known about bullying and cyberbullying and their consequences. The authors also affirmed that the definition of bullying varies (Flannery et al., 2016). The website Stopbullying.gov affirmed that too little research has been performed to comprehend the effects of bullying, including cyberbullying, on both those who bully and bystanders who witness bullying (Stopbullying.gov, 2018). A suggestion that brought forth in an article about bullying in schools was to post classroom signs that prohibit bullying and cyberbullying and list the consequences. In this way, those students who are considering bullying, including cyberbullying, may reconsider in light of the risks they face. In addition, teachers should be consistent in enforcing the rules which should have penalties appropriate for the age of the children in the classroom (Sampson, 2016). The posting of classroom signs identifying the consequences of bullying and cyberbullying may help address the deficit in knowledge.

Lastly, with the teachers' suggestions for improvements in implementing David's Law, as well as the fact that only 51% of responses indicated their school districts had implemented seven or more of the requirements of the Law, it is clear that insufficient progress has been made. There is still much effort that needs to be exerted to render the implementation successful.

The need for positive social change is very apparent when the school environment and possibly, the community, has a culture that includes individuals who frequently and without consequence, engage in bullying/cyberbullying behavior, as well as others who choose to ignore it. When schools have a positive climate characterized by supportive staff, consistent and reasonable rules and discipline, and respectful relationships positive social change can occur.

Conclusion

This study was undertaken to determine whether or not the Texas antibullying, including anticyberbullying law, David's Law, was implemented in Texas public school districts. David's Law was passed in 2017, so it was reasonable to assume that the school districts had ample time to put the nine requirements (or a subset of them) into practice. It was decided that a survey of public school district teachers might provide the needed data, so a survey was conducted in late 2020. The mechanism to reach the teachers was the posting of the survey to as many Facebook teacher group pages as possible. The survey contained a number of multiple choice questions, as well as open-ended questions with the expectation that the teachers would feel free to answer honestly, especially in light of the fact that participation was entirely voluntary and anonymous.

The three research questions sought to identify how many of the requirements of David's Law had been meet, with a response of seven or more requirements considered compliant (Research Question 1). In addition, teachers were asked to select what they believed were the factors (size, funding, or rating) that facilitated implementation (Research Question 2) and the factors they considered to be detrimental, such as insufficient time, lack funding, and lack support (Research Question 3). The open-ended questions sought to probe a bit deeper and potentially elicit revealing answers that could not easily be obtained from a multiple-choice format, for example, "What do you believe is the most effective component of your school district's antibullying/cyberbullying policy and procedures?, and "Prior to this survey, were you familiar with David's Law?"

The survey results were analyzed by using binary logistic regression and were surprising. Only 51% of the respondents indicated that David's Law had been implemented, and of the facilitating factors, rating was chosen the most frequently, while still insignificant. None of the impediments were chosen to a significant degree, even though research has consistently identified factors such as those included in this study as relevant. As stated by National Academies of Sciences, Engineering, and Medicine (2016), successful implementation of antibullying laws and policies is hampered by inability to comply without additional resources, for example, funding and training.

After review of the responses, it was clear to me that the law has not been given sufficient support by the state, in terms of funding, review, audits/inspections, and compliance reports. Coupled with the fact that no consequences for failure to comply with David's Law were put into effect, the results of this study make it clear that much work needs to be done, particularly at the state level. Also, training, additional staff, and regular student reminders are needed at the school level.

Admittedly, there is a serious lack of research on the implementation of antibullying and anticyberbullying policies (National Academies of Sciences, Engineering, and Medicine, 2016). A simple determination of whether there is a policy is insufficient without consideration of the policy's effectiveness. What is important is the quality of the policy's strategies and the degree of implementation (Hall, & Dawes, 2019). It is hoped that this study will provide much needed information on implementation of David's Law in light of the importance of the positive social change that can result.

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