THE IMPLEMENTATION AND EFFECTIVENESS OF POLICY INTERVENTIONS FOR
SCHOOL BULLYING

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ABSTRACT

WILLIAM J. HALL: The Implementation and Effectiveness of Policy Interventions for School
Bullying
(Under the direction of Mimi V. Chapman)

Bullying threatens the well-being and school success of students. Since the 1990s, the

creation of policies as a strategy to combat bullying has increased considerably. The three

studies comprising this dissertation examined the implementation and effectiveness of policy

interventions for bullying.

The first paper was a systematic review of studies examining the effectiveness of policy

interventions for bullying. Eleven databases were searched, and 21 studies were reviewed.

More educators perceived that policies were effective rather than ineffective. Policies may be

more effective for direct bullying and less effective for indirect bullying. Lesbian, gay, bisexual,

transgender, and queer students in schools with policies that enumerated protections based on

sexual orientation and gender identity experienced less harassment and more frequent and

effective intervention by school personnel. Findings were mixed regarding associations between

anti-bullying policy presence and bullying outcomes.

The second and third papers focused on the implementation of the statewide anti-bullying

law in North Carolina. These studies used data collected from educators in K-12 public schools.

The second paper examined differences in the fidelity of implementation of the law across eight

protected social classes enumerated in the law: race, national origin, gender, socioeconomic

status, sexual orientation, gender identity, appearance, and disability. Local anti-bullying

policies more often included race as a protected class and infrequently included sexual

orientation and gender identity. More educators had been trained on bullying based on race than any other social class. Students were more often informed that bullying based on race was prohibited and were least often informed about prohibitions regarding sexual orientation and gender identity. Reporting, investigating, and remediating bullying behavior was highest for bullying based on race and then disability and was lowest for bullying based on sexual orientation and gender identity.

The third paper examined the relationships between school contextual factors and two outcomes: fidelity of implementation of the law and teacher protection of students. Implementation fidelity was higher in high schools than elementary schools. The number of students in the school and the prevalence of student suspensions were inversely related to implementation fidelity. Higher levels of teacher protection were reported in elementary schools.

As I'm finishing my Ph.D. and shifting my vision ahead to my future career, I'm starting to think about my legacy. Or rather, the legacy I hope to leave behind in terms of my work. This time has also spurred me to think about all the people who've played a role in my education. I've realized that my brother and I were my mother's legacy. Throughout my life, my education was a top priority for my mother. She made sure I attended challenging, safe, and supportive schools. She helped me study for tests and quizzes. And, she nagged me about doing my homework after school. I was annoyed by this nagging at the time but now see that it was her way of nurturing me. I recognize how fortunate I am to have had a mother who cared so much about me. I dedicate this dissertation to my late mother, Sherry Hall.

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LIST OF ABBREVIATIONS

ASSIA   Applied Social Sciences Index and Abstracts

CINAHL   Cumulative Index to Nursing and Allied Health Literature

ERIC   Education Research Information Center

ESP   Education Support Professional

FIML   Full Information Maximum Likelihood

ICC   Intraclass Correlation Coefficient

LGBTQ   Lesbian, Gay, Bisexual, Transgender, and Queer

NASW   National Association of Social Workers

NC   North Carolina

PRISMA   Preferred Reporting Items for Systematic Reviews and Meta-Analyses

RCT   Randomized Controlled Trial

SVPA   School Violence Prevention Act of 2009

INTRODUCTION

THE IMPLEMENTATION AND EFFECTIVENESS OF POLICY INTERVENTIONS FOR
SCHOOL BULLYING

Bullying in schools is a significant social problem because of the proportion of students involved in bullying and because bullying threatens the physical, mental, social, behavioral, and educational well-being of youth. In the United States, almost half of youth were directly involved in bullying through perpetration (18%), victimization (21%), or both perpetration and victimization (8%; Cook, Williams, Guerra, & Kim, 2010). Negative outcomes associated with bullying victimization include absenteeism, low academic performance, low self-esteem, anxiety, depression, suicidal ideation and behavior, conduct problems, psychosomatic problems, psychotic symptoms, and physical illness (Aluede, Adeleke, Omoike, & Afen-Akpaida, 2008; Arseneault, Bowes, & Shakoor, 2010; Aresneault et al., 2006; Buhs & Ladd, 2001; Buhs, Ladd, & Herald, 2006; Copeland, Wolke, Angold, & Costello, 2013; Dake, Price, & Telljohann, 2003; Gini & Pozzoli, 2009; Glew, Fan, Katon, Rivara, & Kernic, 2005; Hawker & Boulton, 2000; Juvonen, Nishina, & Graham, 2000; Kim & Leventhal, 2008; Klomek, Sourander, & Gould, 2010; Nakamoto & Schwartz, 2010; Reijntjes et al., 2011; Reijntjes, Kamphuis, Prinzie, & Telch, 2010; Rigby, 2003; Ttofi, Farrington, Lösel, & Loeber, 2011a; Wong, 2009). In addition, bullying perpetration is associated with truancy, low academic performance, school failure, depression, suicidal ideation, violent behavior, and delinquency and criminality (Aluede, Adeleke, Omoike, & Afen-Akpaida, 2008; Dake, Price, & Telljohann, 2003; Farrington, Ttofi, & Lösel, 2011; Jankauskiene, Kardelis, Sukys, & Kardeliene, 2008; Kim & Leventhal, 2008;

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Klomek, Sourander, & Gould, 2010; Ma, Phelps, Lerner, & Lerner, 2009; Ttofi, Farrington, & Losel, 2012; Ttofi, Farrington, Lösel, & Loeber, 2011b).

Policy interventions have been introduced over the past two decades to reduce bullying. Currently, 49 states have passed anti-bullying laws (Bully Police USA, 2014). These laws apply to approximately 98,000 K-12 public schools, with the goal of protecting over 50 million students from involvement in bullying (Snyder & Dillow, 2013; Stuart-Cassel, Bell, & Springer, 2011). Despite the widespread adoption of anti-bullying policies, relatively few studies have examined the effectiveness of these interventions, and no empirical reviews or syntheses of research evidence have been completed to inform policy creation and revision regarding bullying. Research on the implementation of school bullying policies is also limited. These studies have primarily focused on descriptive accounts of implementation as well as identifying barriers to and drivers of implementation. Studies have described how implementation differs by policy component, but no studies have examined if policies are being implemented differently in terms of social groups protected from bullying (e.g., consistently addressing bullying based on race and inconsistently addressing bullying based on sexual orientation). Further, researchers have not used inferential, multivariate analyses to examine the relationships between potential barriers to and facilitators of bullying policy implementation.

Organization of the Dissertation

This dissertation followed the three-paper format and focused on school bullying policy implementation and effectiveness. The first paper is a systematic review of studies examining the effectiveness of policy interventions for school bullying. The aims of the first paper were threefold: (1) to systematically identify, examine, and evaluate the methodological characteristics of studies investigating the implementation and effectiveness of policies that address school

bullying; (2) to synthesize the substantive findings from these studies; and (3) to provide suggestions for future research.

The second and third papers focus on the implementation of a statewide anti-bullying policy in North Carolina (NC). The primary goal of the second paper was to examine the fidelity of implementation of the NC School Violence Prevention Act of 2009 (SVPA). This study used data collected from educators (e.g., administrators, teachers, education support professionals, and school counselors) to perform descriptive and comparative analyses about the implementation of nine mandated components in SVPA (e.g., adopting a local anti-bullying policy, training school personnel about the policy, and notifying students about the policy). Most of the analyses examined differential implementation of the policy in terms of the protected social identities and statuses enumerated in the policy (i.e., race, national origin, gender, socioeconomic status, sexual orientation, gender identity, physical appearance, and disability status).

The capacity of educators to implement components of an anti-bullying policy and protect students from bullying likely hinges on the school context. Thus, the purpose of the third paper was to examine the relationships between school contextual factors (e.g., school size, school type, teacher to student ratio, teacher turnover rate, per pupil expenditure, and the proportion of students below grade level in math and reading) prior to the full implementation of the SVPA and two outcome variables: fidelity of implementation of the SVPA and teacher protection of students.

Relevance to Social Work

Social work is committed to improving human well-being, especially for those who are vulnerable or oppressed (National Association of Social Workers [NASW], 2008). Harassment and bullying are forms of oppression associated with various psychological and educational

problems. And, bullying often disproportionately affects youth who are vulnerable or from

marginalized minority groups, including racial/ethnic minority students, students who are

immigrants or the children of immigrants, students from low socioeconomic backgrounds, sexual

minority students, gender nonconforming students, students who are overweight or obese, and

students with disabilities and special needs (Elamé, 2013; Peguero, 2012).

This dissertation may be most relevant to social workers practicing in schools and those

engaged in policy advocacy. School social workers are frequently involved in the planning and

delivery of interventions for bullying at multiple ecological levels as their role typically focuses

on the mental and behavioral well-being of students (Whitted & Dupper, 2005). Further, the

NASW has charged social workers to interrupt the bullying dynamic in schools and to aid

students who have been victims and perpetrators of bullying (Issurdatt, 2010).

Social workers have also engaged in policy advocacy concerning bullying. The NC

chapter of the NASW and the NC School Social Workers Association were part of the coalition

of organizations that prompted legislators to pass the SVPA into law (Equality NC, 2009). The

SVPA was highly controversial primarily because it included an enumerated statement of various

protected social identities and statuses, including sexual orientation and gender identity (Comer,

2009). Indeed, the SVPA was the first law enacted in the South that included protections on the

basis of sexual orientation and gender identity. Few state policies include such protections

(Human Rights Campaign, 2015; Stuart-Cassel, Bell, & Springer, 2011).

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PAPER I

THE EFFECTIVENESS OF POLICY INTERVENTIONS FOR SCHOOL BULLYING: A SYSTEMATIC REVIEW

Bullying in schools is a pervasive threat to the educational and psychological well-being of youth. Bullying refers to unwanted aggressive behaviors enacted intentionally over time by an individual or group using some form of power to cause physical and/or psychological harm to another individual or group in a shared social context (Gladden, Vivolo-Kantor, Hamburger, & Lumpkin, 2014; Olweus, 2013). Thus, bullying is unwanted, aggressive, intentional, repetitive, harmful, interpersonal, and involves power differentials. Bullying occurs in many social settings (e.g., schools, neighborhoods, and workplaces) and among various age groups. However, bullying among students in schools is particularly pressing given that childhood and adolescence are vulnerable and formative periods of development, and bullying in a school context can affect the physical, mental, social, and educational well-being of youth. A meta-analysis of 82 studies conducted in 22 countries in North America, South America, Europe, Southern Africa, East Asia, and Australia and Oceania found that 53% of youth were involved in bullying as bullies, victims, or both bullies and victims (Cook, Williams, Guerra, & Kim, 2010).

Negative Outcomes Connected with Bullying

Involvement in the bullying dynamic as perpetrators, victims, and bystanders has been linked with a number of deleterious outcomes in both cross-sectional and longitudinal studies. Youth who are bullied can experience a number of immediate negative effects, including physical injury, humiliation, sadness, rejection, and helplessness (Kaiser & Rasminsky, 2009). Over time, a number of mental and behavioral health problems can emerge, including low self-

esteem, anxiety, depression, suicidal ideation and behavior, conduct problems, psychosomatic problems, psychotic symptoms, and physical illness (Aluede, Adeleke, Omoike, & Afen-Akpaida, 2008; Arseneault, Bowes, & Shakoor, 2010; Copeland, Wolke, Angold, & Costello, 2013; Dake, Price, & Telljohann, 2003; Gini & Pozzoli, 2009; Gini, Pozzoli, Lenzi, & Vieno, 2014; Hawker & Boulton, 2000; Kim & Leventhal, 2008; Klomek, Sourander, & Gould, 2010; Reijntjes et al., 2011; Reijntjes, Kamphuis, Prinzie, & Telch, 2010; Rigby, 2003; Ttofi, Farrington, Lösel, & Loeber, 2011a; Wong, 2009). In addition, students who have been bullied may not feel safe at school and disengage from the school community due to fear and sadness, which may contribute to higher rates of absenteeism and lower academic performance (Aresneault et al., 2006; Buhs & Ladd, 2001; Buhs, Ladd, & Herald, 2006; Glew, Fan, Katon, Rivara, & Kernic, 2005; Juvonen, Nishina, & Graham, 2000; Nakamoto & Schwartz, 2010).

Youth who perpetrate bullying behaviors also face psychosocial difficulties. These youth often grow up in harsh social environments with few resources (Hong & Espelage, 2012), and bullies often lack impulse control and empathy for others (O'Brennan, Bradshaw, & Sawyer, 2009; van Noorden, Haselager, Cillessen, & Bukowski, 2014). Students who bully are more likely to skip school, perform poorly, and drop out (Jankauskiene, Kardelis, Sukys, & Kardeliene, 2008; Ma, Phelps, Lerner, & Lerner, 2009). Bullying perpetration is also associated with depressive symptoms, suicidal ideation and behavior, and violent and criminal behavior (e.g., assault, robbery, vandalism, weapon-carrying, and rape; Aluede, Adeleke, Omoike, & Afen-Akpaida, 2008; Dake, Price, & Telljohann, 2003; Farrington, Ttofi, & Lösel, 2011; Kim & Leventhal, 2008; Klomek, Sourander, & Gould, 2010; Ttofi, Farrington, & Losel, 2012; Ttofi, Farrington, Lösel, & Loeber, 2011b). Compared to non-perpetrators, students who bully appear to be at increased risk for engagement in violent and criminal behavior into adulthood. A meta-

analysis of longitudinal studies found that school bullies were 2.5 times more likely to engage in criminal offending over an 11-year follow-up period (Ttofi, Farrington, Lösel, & Loeber, 2011b).

Student bystanders are present in up to 90% of bullying incidents (Atlas & Pepler, 1998; Craig & Pepler, 1995; Glew, Fan, Katon, Rivara, & Kernic, 2005; Hawkins, Pepler, & Craig, 2001). Youth who witness bullying often report emotional distress, including increased heart rate and higher levels of fear, sadness, and anger when recalling bullying incidents (Barhight, Hubbard, & Hyde, 2013; Janson & Hazler, 2004). Thus, across the literature, bullying is associated with problematic outcomes for perpetrators, victims, and bystanders alike.

Policy as an Intervention for Bullying

Policies have a long and often successful history of influencing human behavior and health, with examples in tobacco use, seat belt use, vaccination practices, and graduated driver licensing. Since the late 1990s, policies have been developed as a strategy to reduce bullying. A policy is a system of principles created by governing bodies or public officials to achieve specific outcomes by guiding action and decision-making (Guthrie, 2002). Policy is an umbrella term that refers to various regulatory measures including laws, statutes, policies, regulations, and rules. These terms vary based on the jurisdiction and legal authority of the individual, group, or body who established the policy. In the United States, K-12 education policy can be established at the federal, state, and local levels (Guthrie, 2002; Mead, 2009). Examples include federal laws enacted by Congress, state laws enacted by state legislatures, federal case law determined by federal courts, state case law determined by state courts, federal regulations produced by the U.S. Department of Education, state regulations produced by state departments of education or public instruction, state policies adopted by state boards of education, local policies adopted by local boards of education, local regulations and procedures determined by local education

agencies or school districts, and school rules and procedures established by school principals. All aspects of this complex network of education policy are directed at influencing the operations and outcomes of schools.

Policy interventions have several advantages. Policies can influence student, teacher, and administrator behavior as well as school organizational practices. For example, school bullying policies typically *prohibit* certain behaviors, such as threatening and harassing other students or retaliating against students who witness and then report bullying incidents. Policies may also *require* behaviors, such as requiring teachers to report bullying incidents to administrators and requiring administrators to investigate reports of bullying. Further, policies may *promote* certain behaviors by explicitly stating positive behavioral expectations for students or *discourage* behaviors by explicitly stating punishments associated with aggressive behaviors. At the school level, policies can guide organizational practices, such as establishing bullying incident reporting procedures and creating school safety teams tasked with developing and executing school safety plans. Thus, policies can influence individual and organizational behaviors.

When well-crafted and properly implemented, policy may be the most cost-efficient intervention method. Whereas individual and small-group interventions tend to be time- and labor-intensive, and might reach only a limited number of people, policies can achieve widespread change by influencing many organizational systems and entire populations. Policies can be universal prevention strategies because they are typically designed to reach entire population groups, such as all public school students in a state. In addition, policies tend to be long-lasting whereas individual and group intervention programs tend to be time-limited and resource-dependent. Although the introduction of new policies and programs typically requires

new resources to be implemented as intended, policies can remain in place as unfunded mandates.

Policies can also be thought of as *upstream* interventions that provide a foundation for *downstream* interventions because policies are systems-level interventions that typically require more targeted intervention programs, practices, and services at the organizational, group, and individual levels (McKinlay, 1998). For example, a bullying policy may be adopted within a state or district, which then applies to all of the schools within the state or district. This policy may require training all school employees on bullying prevention strategies, integrating bullying awareness and education into classroom lessons and curricula, and individual or group counseling for students involved in bullying. Thus, policy lays the groundwork for an array of more specific and targeted interventions to be deployed in schools by outlining goals and directives in the policy document.

Policy design is important because the content influences a cascade of actions throughout school systems, which may result in positive or negative outcomes. For example, a bullying policy that requires schools to provide counseling services and positive behavioral reinforcement to students who perpetrate bullying is markedly different than a policy that requires schools to suspend or expel students who have engaged in multiple bullying incidents. Research shows that overly harsh and punitive policies (e.g., "three strikes and you're out" policies or "zero-tolerance" policies) are not effective at reducing aggression or improving school safety (American Psychological Association Zero Tolerance Task Force, 2008). Thus, bullying policies should be crafted and revised using evidence (see Nickerson, Cornell, Smith, & Furlong, 2013 for evidence-informed recommendations for bullying policy development).

Anti-bullying laws have been enacted in a number of countries, including Canada, the Philippines, the United Kingdom, and the United States. Although the United States does not have a federal law against school bullying currently, 49 states have enacted anti-bullying laws (Bully Police USA, 2014). These state laws apply to approximately 98,000 K-12 public schools, with the goal of protecting over 50 million students from involvement in bullying (Snyder & Dillow, 2013; Stuart-Cassel, Bell, & Springer, 2011).

Despite the widespread adoption and application of anti-bullying policies within the United States and in other countries, relatively few studies have examined the effectiveness of these interventions. Instead, research has focused on programmatic interventions. Numerous systematic or meta-analytic reviews have been completed on the effectiveness of programmatic interventions for school bullying (e.g., Baldry & Farrington, 2007; Evans, Fraser, & Cotter, 2014; Ferguson, San Miguel, Kilburn, & Sanchez, 2007; Jiménez Barbero, Ruiz Hernández, Llor Esteban, & Pérez García, 2012; Lee, Kim, & Kim, 2013; Livingston, 2008; Merrell, Gueldner, Ross, & Isava, 2008; Polanin, Espelage, & Pigott, 2012; Smith, Schneider, Smith, & Ananiadou, 2004; Ttofi & Farrington, 2009, 2011; Vreeman & Carroll, 2007). A systematic review of the literature on the effectiveness of policy interventions for school bullying has not been completed.

Purpose of the Current Review

Given the proportion of students directly or indirectly involved in bullying, the array of educational and psychological problems associated with bullying, the extensive adoption of anti-bullying policies, and the absence of a review of the research on these policy interventions, the need for a systematic review on this topic is imperative. The purpose of this systematic review was to provide a state of the research on school bullying policy effectiveness. Thus, the objectives of this study were threefold: (1) to systematically identify, examine, and evaluate the

methodological characteristics of studies investigating the effectiveness of school bullying policies; (2) to summarize the substantive findings from these studies; and (3) to provide recommendations for future research.

Methods

In the preparation of this systematic review, I used methods outlined in Cooper (2010) and Littell, Corcoran, and Pillai (2008) and adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) criteria (Moher, Liberati, Tetzlaff, & Altman, 2009). Protocols for bibliographic searches, study inclusion and exclusion, and data extraction were developed before beginning the systematic search for relevant studies. And, this review was registered with PROSPERO, an international databased of systematic reviews regarding health and social well-being.

Inclusion Criteria

Studies were included in the review if they met the following criteria: (a) collected data and reported results on the effectiveness of policy interventions for bullying in school settings; (b) written in English; and (c) completed since January 1, 1995. Policy interventions for bullying were defined as statutes, policies, regulations, or rules established at the national, state, district, or school levels with the goal of reducing bullying in K-12 schools. And, effectiveness referred to the extent that a policy intervention prevented or reduced bullying behavior among students. Given that school bullying policy is a nascent area of empirical inquiry with relatively few empirical investigations and evaluations, stringent exclusion criteria in terms of study designs and methods were not used. Only studies written in English were included due to the language proficiency of the authors. Finally, the time period selected allowed for a

comprehensive and contemporary review of the empirical literature completed in this area over the past 20 years.

Search Procedure

A behavioral and social sciences librarian was consulted to assist with developing a search string and identifying relevant computerized bibliographic databases in which to search. The following search string was used to search all databases for studies published between January 1, 1995 and November 8, 2014: school AND bullying AND (law OR policy OR policies OR legislation OR statute) AND (effect OR effects OR effectiveness OR efficacy OR impact OR influence). The search of multiple databases increases the likelihood of identifying all possible studies falling within the scope of the review; thus, I searched 10 databases, some of which included gray literature sources. Searches were performed in the following databases via EBSCO with terms searched within the abstracts: *CINAHL* (*Cumulative Index to Nursing and Allied Health Literature*), *Educational Full Text*, *ERIC* (*Education Research Information Center*), *PsycInfo*, and *Social Work Abstracts*. The following databases were searched via ProQuest with terms searched within the titles, abstracts, and subject headings: *ASSIA* (*Applied Social Sciences Index and Abstracts*), *Dissertations & Theses Full Text*, and *Social Services Abstracts*. In addition, *Conference Proceedings Citations Index* was searched with terms searched within titles, abstracts, and keywords. Finally, *PubMed* was searched with terms searched within titles and abstracts. These more formal bibliographic database searches were supplemented with internet searches of *Google Scholar*.

Study Screening Methods

After performing the bibliographic database searches, 481 results were imported into the RefWorks software program to assist with organization and duplicate removal. Following

duplicate removal, 414 studies remained. An additional 8 studies were added from *Google Scholar* searches that were not present among the 414 studies. The first author and a trained research assistant independently screened each of the 422 studies to determine eligibility. A checklist of the inclusion criteria was created prior to the search and was used for eligibility assessment. Most studies were included or excluded after reading the title and abstract; however, it was also necessary to examine the full source document of some studies to determine eligibility. To examine inter-rater agreement, the screening decisions of the two screeners were compared and Cohen's kappa was calculated with SPSS (version 21), which showed excellent agreement: kappa = 0.97, $p < .05$ (Landis & Koch, 1977). There were only six disagreements between the screeners, which were resolved by the first author examining the source documents.

Data Extraction Methods

After completing the study inclusion and exclusion process, 21 studies were included and then subjected to data extraction (see Figure 1). A data extraction sheet was developed to assist with identifying and collecting relevant information from included studies. Information extracted included the citation, purpose of the study, study design, sampling strategy and location, response rate, sample size and characteristics, measurement of relevant variables, analyses performed, and results and findings. The first author extracted this information and then a research assistant compared the completed extraction sheets with the source documents to assess the accuracy of the extractions. There were only six points of disagreement between the extractor and checker, which they then resolved together by examining the source documents and extractions simultaneously.

<div align="center">

Results

</div>

A total of 21 studies were included in this review: 9 peer-reviewed journal articles, 6 research reports that were not peer-reviewed, 5 doctoral dissertations, and 1 master's thesis. I will present a summary of the methodological characteristics of these studies followed by a synthesis of the substantive findings regarding the effectiveness of school bullying policies. Table 1 shows a summary of information extracted from each study.

Study Design Characteristics

Of the 21 studies, 12 (57%) used mixed methods, 8 (38%) used quantitative methods, and 1 (5%) used qualitative methods. All studies relied on cross-sectional designs. Most (65%) studies used convenience sampling, whereas the remaining studies used some form of probability sampling. Over half (57%) of studies used national samples, whereas 24% used samples from a single city or local region, 15% used statewide samples, and 5% used samples from areas in multiple countries. Over 80% ($n = 17$) of studies sampled participants in the United States, with the remaining studies drawing participants from Europe ($n = 3$), Australia ($n = 1$), East Asia ($n = 1$), and the Middle East ($n = 1$). The most common recruitment sites were schools, followed by listservs, websites, community groups or organizations, professional associations, and personal contacts. Most studies reported participant response rates which varied from 21% to 98%, and the average response rate across studies was 57% ($SD = 29$). Eight studies did not report response rates.

Study Samples

Across studies, sample sizes varied from 6 to 8,584 participants. Only the qualitative study had less than 50 participants, and two studies had between 50 and 100 participants. Most studies had relatively large samples with over 500 respondents. The most commonly used participants were students, followed by teachers. Other less frequent respondents included

administrators, school psychologists, school counselors, education support professionals, and parents. About one-third of studies included multiple participant groups (e.g., students and teachers). Most studies (62%) recruited participants from K-12 settings, whereas other studies recruited participants from a single school level: elementary, middle, or high school. Among adult participants, about 75% were female and 90% were White. These percentages are similar to those reported by the U.S. Department of Education, which show that 76% of teachers are female and 82% are White (Snyder & Dillow, 2013).

Study samples of students were more diverse in terms of race/ethnicity with most studies consisting of about two-thirds White participants as well as Black, Hispanic/Latino/Latina, Asian, Native American Indian, Middle Eastern, and multiracial students. In addition, student samples were closer to having equal proportions of males and females. Five studies included student participants who were exclusively LGBTQ, whereas six studies did not report information about student sexual orientation or gender identity. In addition, studies typically did not measure or report participant national origin, citizenship status, religious identity, socioeconomic status, or disability status. Finally, most students were high school aged.

Measurement and Evaluation of Policy Effectiveness

All studies relied on self-report data. However, studies varied in terms of analytic approaches used to evaluate effectiveness: 9 studies used bivariate analyses, 8 studies used descriptive statistics of perceived effectiveness, 3 studies used multivariate analyses, and 1 study used both bivariate and multivariate analyses. Studies that used a bivariate analytic approach compared measures of teachers' responsiveness to bullying or measures of student bullying between those in schools with and without anti-bullying policies or between schools with high vs. low quality anti-bullying policies. Descriptive analyses of effectiveness entailed participants

responding to a single, self-report item about their perceptions of policy effectiveness (e.g.,

"How effective do you feel that your school's anti-bullying policy is in reducing bullying?"),

with Likert-type agreement/disagreement response options or categorical response options (e.g.,

yes or *no*). Multivariate analytic approaches primarily used student bullying scores as the

dependent variable and either a continuous anti-bullying policy score or a dichotomous variable

indicating whether or not the school had an anti-bullying policy as the independent variable.

School bullying policy scores were based on either a set of items about the perceived presence of

an anti-bullying policy (e.g., "I think my school clearly set forth anti-bullying policies and

rules") or a content analysis of policy documents to identify the presence of criteria or strategies

associated with effectiveness (e.g., having a definition of bullying, establishing procedures and

consequences for bullies, having educational events about the school's bullying guidelines,

ensuring adult supervision in school areas prone to bullying, and formulating a school task group

to coordinate anti-bullying efforts).

The measures used to assess bullying among students varied with some studies using

established scales (e.g., Olweus Bullying Questionnaire) whereas other studies used items

developed by the researchers. The number of items used to measure bullying varied from 3 to 23

($M = 18.2$, $SD = 6.1$). The majority of the 11 studies that measured bullying measured bullying

victimization ($n = 8$). Only two studies measured both bullying victimization and perpetration,

and one study measured just perpetration. In terms of the types of bullying measured, 10 studies

measured verbal bullying, 9 measured physical bullying, 9 measured social or relational

bullying, 5 measured electronic bullying, 5 measured sexual bullying, and 2 measured property

bullying. In addition to student bullying, educators' responsiveness to bullying was another

outcome variable that was used in 8 studies. Only one study used a scale to measure educator

responsiveness, and the remaining seven studies used one to four items about educator

responding to student bullying.

Results and Findings on Policy Effectiveness

   Perceptions of policy effectiveness. Eight (38%) of the 21 studies reported results on

participants' perceptions of policy effectiveness. The proportion of educators who perceived

school bullying policies to be effective to some degree ranged from 5% to 88% ($M = 49.4$, $SD =$

33.4; Barnes, 2010; Bradshaw, Waasdorp, O'Brennan, & Gulemetova, 2013; Hedwall, 2006;

Isom, 2014; Sherer & Nickerson, 2010; Terry, 2010). Likewise, the proportion of educators who

perceived policies to be ineffective ranged from 4% to 79% ($M = 24.5$, $SD = 23.6$). In addition,

only two studies allowed participants an "I don't know" response option, which ranged from

16% to 70% ($M = 51.3$, $SD = 30.6$). Only one study measured students' perceptions of policy

effectiveness, and results showed that they perceived policies to be moderately effective (Ju,

2012). In addition, only one of the 21 studies collected multiple waves of data, though

respondents were different at each of the two waves (Samara & Smith, 2008). In this study,

researchers examined perceived effectiveness before and after the passage of an anti-bullying

policy; however, there were no significant changes in perceived effectiveness.

   Differences in outcomes between schools with differing policy characteristics. Nine

(43%) of the 21 studies compared outcomes of interest (i.e., bullying perpetration or

victimization among students and educators' responses to bullying) between students or

educators in schools with different bullying policy characteristics. In terms of student bullying

outcomes, one study found that students in schools with high quality bullying policies reported

lower rates of verbal and physical bullying victimization than students in schools with low

quality policies; however, no differences were found for social/relational or property bullying

victimization (Ordonez, 2006). Similarly, another study found lower rates of verbal, physical, and property bullying victimization among students in schools with high quality bullying policies, yet higher rates of social/relational bullying perpetration (Woods & Wolke, 2003.

Six studies with rather large samples of primarily LGBTQ students consistently found that compared to students in schools with no anti-bullying policy or an anti-bullying policy that did not explicitly prohibit bullying based on sexual orientation and gender identity, students in schools with comprehensive anti-bullying policies that included protections based on sexual orientation and gender identity reported lower rates of anti-LGBTQ bullying, more school personnel frequently intervening when anti-LGBTQ comments were made in their presence, and more school personnel being effective in their anti-LGBTQ bullying responses (Kosciw & Diaz, 2006; Kosciw, Diaz, & Greytak, 2008; Kosciw, Greytak, Diaz, & Bartkiewicz, 2010; Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012; Kosciw, Greytak, Palmer, & Boesen, 2014). These differences were consistent in analyses of both local anti-bullying policies and state anti-bullying laws. The influence of policy on differences in educators' responses to bullying was supported by another study that was not focused specifically on LGBTQ bullying. This study found that educators in schools with bullying policies were more likely to enlist the help of parents and colleagues in responding to a bullying incident and were less likely to ignore the bullying (Bauman, Rigby, & Hoppa, 2008).

Associations between outcomes and policies. Four (19%) of the 21 studies examined associations between school bullying policy presence and outcomes. Only three significant or marginally significant ($p \le .095$) associations were found: the presence of an anti-bullying policy was inversely related to general bullying victimization, social/relational bullying perpetration, and verbal bullying perpetration (Farrington & Ttofi, 2009; Lee, 2007). Conversely, eight non-

significant associations were found between school bullying policy presence and scores of general, physical, verbal, and social/relational bullying perpetration as well as physical, verbal, and social/relational bullying victimization (Farrington & Ttofi, 2009; Khoury-Kassabri 2011; Lee, 2007). Finally, one large, national study of educators found no relationship between having an anti-bullying policy and educators' comfort intervening in both general and discriminatory bullying (O'Brennan, Waasdorp, & Bradshaw, 2014).

Discussion

Findings from the 21 studies are mixed. Educators were divided in their perceptions of the effectiveness of policies for school bullying; however, about twice as many educators reported that policies were effective to some degree as those who reported that they were not effective. Nonetheless, many educators also felt uncertain about policy effectiveness or ineffectiveness.

Two studies found lower rates of verbal and physical bullying in schools with high rather low quality policies; however, in terms of social/relational bullying, one study found no difference and another study found higher rates of social/relational bullying in schools with high quality policies. This contradictory finding, suggests that improving the quality of bullying policies may only be effective for direct and overt forms of bullying (e.g., hitting and name-calling). Policies may overemphasize traditional notions of what bullying is (i.e., physical and verbal harassment) and underemphasize more recent and less widespread understandings of social/relational aggression as bullying. In addition, direct and overt forms of bullying may be more amenable to policy interventions because educators can directly observe these behaviors and then proceed with their response, whereas social/relational bullying often occurs away from the direct supervision of educators (Young, Nelson, Hottle, Warburton, & Young, 2013).

Educators have reported difficulty in responding to bullying incidents which they did not witness (Mishna, Pepler, & Wiener, 2006).

One area of consistent agreement in the findings relates to the benefits for LGBTQ students who are in schools with anti-bullying policies that provide protections based on sexual orientation and gender identity. These benefits included lower rates of victimization and higher rates of intervention by educators. Numerous studies have demonstrated that LGBTQ youth experience high rates of bullying victimization (Berlan, Corliss, Field, Goodman, & Austin, 2010; Espelage, Aragon, Birkett, & Koenig, 2008; Kosciw & Diaz, 2006; Kosciw, Diaz, & Greytak, 2008; Kosciw, Greytak, Diaz, & Bartkiewicz, 2010; Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012; Kosciw, Greytak, Palmer, & Boesen, 2014; McGuire, Anderson, Toomey, & Russell, 2010; Varjas et al., 2008). However, only 19 (39%) of the 49 states with anti-bullying laws enumerate protections based on sexual orientation and/or gender identity/expression (Human Rights Campaign, 2015). Given the evidence for the effectiveness of enumerated policies, all policies should prohibit harassment and bullying based on sexual orientation and gender identity.

Aside from the LGBTQ-focused studies, only two other studies examined educators' responsiveness to bullying. Findings from these studies were contradictory as one found a connection between having a bullying policy and responding to a bullying incident, whereas the other study found no relationship between having a policy and educators' comfort in responding to bullying. However, the study that found no relationship included a number of other relevant independent variables (i.e., receiving training on how to implement the school's bullying policy and having resource available in the school to help educators intervene), which were significantly associated with increased comfort in responding to bullying (O'Brennan, Waasdorp,

& Bradshaw, 2014). Thus, the relationship between the presence of a school bullying policy and educators' responsiveness to bullying incidents may be mediated by training about putting the policy into practice and having resources available for intervention.

Findings among the few studies that examined associations between policy presence and student bullying were mixed; although more non-significant than significant associations were found. Two of the significant associations were correlations, not regression coefficients from a multivariate analysis, and the third promising association was only marginally significant. At first glance, one may conclude from these findings that the presence of bullying policies does not influence bullying among students; however, the presence of a policy is necessary but not sufficient to effect student behavior. Indeed, after a policy has been adopted, it must be put into practice. The mere adoption or presence of a policy does not mean that it will be immediately and consistently put into practice exactly as intended. The implementation of a policy is a complex, dynamic, and ongoing process involving a vast assortment of people, resources, organizational structures, and actions. No study that examined the implementation of school bullying policies found that the policies were being implemented precisely as intended (Hedwall, 2006; Holmgreen, 2014; Jordan, 2014; LaRocco, Nestler-Rusack, & Freiberg, 2007; MacLeod, 2007; Robbins, 2011; Schlenoff, 2014; Smith-Canty, 2010; Terry, 2010). Indeed, the extent of faithful implementation varied considerably by location and policy component. Therefore, fidelity of implementation may mediate the relationship policy adoption or presence and the targeted policy outcome of student bullying. However, none of the studies measured implementation fidelity, which is the extent to which a policy is implemented as intended.

In sum, the empirical literature on the effectiveness of bullying policies is mixed and does not provide compelling evidence of policy effectiveness or ineffectiveness either way. The

exception being the findings from the six studies with large, primarily national samples of LGBTQ students.

Methodological Limitations of Studies

Caution should be taken in the interpretation and generalization of these results because of the limitations inherent in the studies' methods used to examine the effectiveness of school bullying policies. I identified five prominent methodological limitations among the studies reviewed. First, the studies relied on evidence from cross-sectional surveys. Based on frameworks of evidence supporting intervention effectiveness, cross-sectional studies are either low in the hierarchy or absent as recommended sources of evidence (Coalition for Evidence-Based Policy, 2003; Petticrew & Roberts, 2003; Pilcher & Bedford, 2011). Cross-sectional designs are vulnerable to selection bias and confounding. And, these studies cannot examine a key criterion of causality – a temporal relationship, where an anti-bullying policy was adopted and implemented, which then led to decreases in bullying over time.

A second limitation was the use of convenience sampling. Although convenience sampling may be highly feasible and efficient, it can lead to the under-representation or over-representation of particular groups within a sample. Thus, it is unlikely that a convenience sample is representative of the population of interest, and therefore, undermines the generalizations that can be made from the findings (Larsen, 2007).

A third limitation related to the studies' analytic approaches. Most of the studies used descriptive statistics or bivariate analyses to evaluate the effectiveness of bullying policies. Descriptive summaries of opinions or perceptions of effectiveness are not appropriate sources of evidence for the effectiveness of an intervention and may be more valuable in intervention implementation research and process evaluation (Petticrew & Roberts, 2003). Also, bivariate

analyses can be oversimplified and leave out relevant explanatory or contextualizing variables (Spicer, 2004). In addition, some of the studies that used bivariate analyses did not report the exact statistical test used (e.g., independent groups t-test and chi-square test) or effect sizes, and instead, focused on substantive findings. Although these reports seemed to be aimed at a more general, non-scholarly audience, the omission of this information can become problematic in understanding the methods used and drawing conclusions about the results. Few of the studies used multivariate analyses and only one study used a multilevel analysis. Multilevel analysis is often needed in educational research because students are nested within classrooms, which are nested within schools, which are nested within districts, which are nested within states. Nesting or clustering violates the independence assumption for regression modeling, and violating this assumption and not accounting for nesting can lead to biased estimated standard errors and spurious results (Guo, 2005).

A fourth limitation involved the measurement of bullying policies. Many studies asked participants to report whether or not their school had an anti-bullying policy. This may be problematic for student respondents because they may not know about the policies in their schools. In addition, some educators have reported not formally or informally notifying students about bullying policies (Holmgreen, 2014; Jordan, 2014; LaRocco, Nestler-Rusack, & Freiberg, 2007; Robbins, 2011; Smith-Canty, 2010). Even educators may not know whether or not their school has a bullying policy. Up to 14% of educators in three studies did not know if their school systems had adopted a local anti-bullying policy (Hedwall, 2006; Smith-Canty, 2010; Terry, 2010).

A final limitation involved the measurement of bullying. The main goal of policy interventions for bullying is to prevent and reduce bullying behavior among students. Thus,

studies evaluating the effectiveness of these interventions should measure bullying among students as a primary outcome. Nonetheless, only half of the studies directly measured student bullying, and most of these studies did not measure both bullying perpetration and victimization. Policies are aimed at influencing multiple actors involved in the bullying dynamic, which includes bullies, targets, victims, bystanders, parents, and school personnel. Thus, studies that do not measure bullying perpetration and victimization among students are not assessing the two main targeted behavioral outcomes of anti-bullying policies. In addition, bullying behaviors can manifest in many forms, including physical bullying, verbal bullying, social/relational bullying, cyber-bullying, property bullying, and sexual bullying. However, none of the studies in this review measured all of the dimensions of bullying.

Recommendations for Future Research

Undoubtedly, research on the effectiveness of policy interventions for school bullying will continue to expand. To build upon the extant literature and to pursue promising lines of new inquiry in this area, six recommendations are presented for future research on school bullying policy effectiveness.

First, future studies should employ more rigorous designs to evaluate the effectiveness of policy interventions for bullying. The randomized controlled trial (RCT) is the "gold standard" approach for measuring the impact of an intervention; however, RCTs are often infeasible for evaluating public policy interventions due to the political and legal nature of policies, which are implemented across large organizational systems (Oliver et al., 2010). Thus, the most rigorous and feasible designs for evaluating policy effectiveness include pretest/posttest cohort designs, pretest/posttest matched comparison group designs, and interrupted time series designs (Oliver et al., 2010; Shadish, Cook, & Campbell, 2002). These study designs are superior to cross-

sectional studies in determining the effectiveness of interventions (Coalition for Evidence-Based Policy, 2003; Petticrew & Roberts, 2003; Pilcher & Bedford, 2011).

Second, studies should collect data on outcomes as well as the implementation of policy components. When bullying policies do not successfully achieve targeted outcomes, we do not know whether or not those policies were implemented as intended and failed or whether lack of implementation fidelity is to blame. Implementation data, if collected, could be used to ensure that policies are being activated as intended with high levels of fidelity and reported along with outcome evaluation data in the study designs mentioned in the previous paragraph. These data could also be used to examine the predictive relationship between implementation fidelity and outcomes. Theory would suggest an inverse relationship where higher levels of proper implementation are associated with lower levels of bullying among students; however, this remains an untested hypothesis. Also, bullying policies are comprised of an array of directives to be put into action. Data on the fidelity of implementation of all of the components of an anti-bullying policy would also allow researchers to examine the relative or combined impact of policy components on outcomes.

Third, analyzing policy content versus only considering the presence of absence of a bullying policy is needed for more nuanced understanding of which policies work, for whom, and why. A national review of state anti-bullying laws showed broad inclusion of some policy components (e.g., outlining the consequences for students who bully) and limited inclusion of other components (e.g., providing mental health services to perpetrators or victims of bullying; Stuart-Cassel, Bell, & Springer, 2011). Evidence supporting specific actions that can be prescribed in bullying policies is small but growing (Nickerson, Cornell, Smith, & Furlong, 2013). Future research should analyze the relationships between policy content and bullying

outcomes, which could help identify the most influential policy components. Only examining

presence or absence is insufficient because a school district may indeed have an anti-bullying

policy but its content may be quite poor and not evidence-based. Policies can also vary in the

way they are written as some policies are lengthy, vague, and contradictory, whereas other

policies are clear, concise, and specific. This area of content could also be analyzed and may

relate to educators' comprehension of policies, which would influence implementation actions by

educators, and subsequently, policy outcomes.

Fourth, future studies should use multivariate and multilevel analyses. The effectiveness

of policy interventions for bullying are influenced by a number of variables including policy

content, fidelity of implementation, and school environmental factors. By using more complex

statistical methods, such as regression modeling, structural equation modeling, propensity score

matching, and hierarchical linear modeling, researchers will be able to examine the influence of

multiple variables, examine moderating and mediating relationships, control for extraneous

variables, match intervention participants with control participants, and account for clustered

data. These statistical methods will be essential to execute the recommended study designs and

analytic methods described in the previous paragraphs. The use of these statistical methods will

help ensure the integrity of future findings on policy effectiveness.

Fifth, studies should improve sampling practices. To attain more representative samples,

researchers should partner with school districts and state departments of education or public

instruction and employ some form of probability sampling. Many of the studies in this review

that used probability sampling had collaborated with educational agencies in their data

collection. Educational agencies have a vested interest in the implementation and success of

bullying policies, especially those codified as law. In addition, future studies should sample

from multiple respondent groups, such as administrators, teachers, school mental health professionals, and students, in order to gain a more comprehensive and multi-perspective understanding of the implementation and effectiveness of school bullying policies.

Finally, future studies should use scales to measure both bullying perpetration and victimization, and these measures should assess all of the dimensions of bullying: physical, verbal, social/relational, electronic, sexual, and property. Multi-factor scales with a sufficient number of items are needed in order to measure the full range of bullying behaviors. The Centers for Disease Control and Prevention created a compendium of bullying measures that is available to the public (see Hamburger, Basile, & Vivolo, 2011). However, caution should be taken in selecting instruments because some measures have low internal consistency reliability values (i.e., $\alpha < .70$), low test-retest reliability coefficients (i.e., $r < .70$), no recall time frames, overly long and problematic definitions of bullying, limited evidence of construct validity, limited evidence of criterion validity, and limited evidence regarding respondents' understanding of the measure's instructions and items. In addition, as opposed to questionnaires about bullying behaviors, peer and/or teacher nomination methods to identify students who are bullying victims or perpetrators may be more developmentally appropriate for elementary school age children.

Conclusion

Bullying is a widespread problem in which about half of students are directly involved (Cook, Williams, Guerra, & Kim, 2010) and up to 90% of students are indirectly involved (Atlas & Pepler, 1998; Cook, Williams, Guerra, & Kim, 2010; Craig & Pepler, 1995; Glew, Fan, Katon, Rivara, & Kernic, 2005; Hawkins, Pepler, & Craig, 2001). Policy interventions are an approach to bullying that establishes legal mandates for schools, influences the behavior of students and school personnel, and guides the implementation of other targeted interventions within schools.

Findings on the effectiveness of policy interventions for bullying are primarily mixed and limited by the methods used. Research on school bullying policy will undoubtedly continue to expand with the growing understanding of the need for evidence-based education policies and as bullying policies continue to be introduced and revised in schools across the globe. Future research must use more rigorous methods and designs and may indeed find that policy interventions play a key role as one of a constellation of intervention strategies for preventing and reducing school bullying.

Table 1.1

Summary of Studies Included in the Systematic Review

Citation	Study Purpose	Study Design, Location, and Sampling Strategy	Sample Description and Response Rate	Measurement and Evaluation of Policy Effectiveness	Results and Findings
Barnes, 2010	To explore the relationships between anti-bullying policies developed and implementation of those policies.	Quantitative cross-sectional study in Arkansas using probability sampling from elementary, middle, and high schools.	547 school administrators and counselors (51% counselors, 49% administrators); 69% female and 31% male; 93% White, 5% Black, 1% Hispanic, and 1% multiracial; 1% ages 20-29, 15% ages 30-39, 37% ages 40-49, 37% ages 50-59, 10% ages 60-69; response rate = 25%	Participants responded to one item: "How effective do you feel your school's anti-bullying policy is in reducing bullying?"	Results showed 5% of participants reported that their policy was very effective, 32% reported it was effective, 46% reported it was somewhat effective, 15% reported it was not very effective, and 2% reported it was ineffective. There were significant differences in responses between administrators and counselors where counselors tended to view the policies as less effective and administrators tended to view policies as more effective.
Bauman, Rigby, & Hoppa, 2008	To explore the various strategies that teachers and school counselors use to respond to a hypothetical bullying incident.	Mixed methods, cross-sectional study across the United States using convenience sampling from listservs and email distribution through personal contacts of educators working in elementary, middle, and high	735 teachers and school counselors (60% counselors, 39% teachers); 85% female and 15% male; 85% White, 7% Asian, 4% Hispanic/Latino, 3% Black, 3% Native American, 2% other; response rate not reported	Participants indicated whether or not their school had an anti-bullying policy. Participants also completed a 22-item, 5-factor scale measuring strategies for responding to a hypothetical bullying incident: Working with the victim ($\alpha = .75$), working with the bully	Educators in schools with an anti-bullying policy were more likely to enlist the help other adults ($t = 3.62*$) and less likely to ignore the incident ($t = -2.72*$) compared to those in schools without a policy. Analysis of qualitative data indicated that a need for anti-bullying policies was the third most frequently reported theme about bullying strategies in

					(α = .69), ignoring the incident (α = .70), enlisting other adults (α = .63), and disciplining the bully (α = .45).	schools.
Bradshaw, Waasdorp, O'Brennan, & Gulemetova, 2013	To examine variations between teachers' and education support professionals' exposure to bullying, perceived efficacy of in handling bullying situations, involvement in prevention efforts, and needs for additional training.	Quantitative, cross-sectional study in the United States using stratified sampling from a national professional association of educators working in elementary, middle, and high schools.	5,064 teachers and education support professionals (57% education support professionals, 43% teachers); 80% female and 20% male; 89% White, 5% Black, 4% Hispanic, and 2% other; response rate = 31%	Participants responded to one item: "Are bullying problems adequately addressed by the bullying policy?"	Results showed that 80% of teachers and 88% of education support professionals reported that their school's bullying policy adequately addressed bullying. Compared to teachers, significantly more education support professionals reported that the policy was effective.
Farrington & Ttofi, 2009	To assess the effectiveness of school-based anti-bullying programs in reducing bullying.	Systematic and meta-analytic review of studies evaluating intervention programs implemented in elementary, middle, and high schools, in Australia, Europe, and North America.	30 studies evaluating bullying intervention programs in K-12 schools; 22 had a bullying policy and 8 did not	Researchers coded whether or not study schools had a whole-school bullying policy in place before or during intervention program implementation. Mean scores for bullying perpetration and victimization or the proportion of bullies and victims in schools were extracted.	Having a bullying policy was marginally associated with a decrease in bullying victimization (weighted mean OR = 1.53†). Having a bullying policy was not significantly associated with a decrease in bullying perpetration, an increase in perpetration, or an increase in victimization.
Hedwall, 2006	To examine the extent of implementation and effectiveness of a state anti-bullying law.	Quantitative, cross-sectional study in Connecticut using probability sampling from	62 teachers, administrators, and department chairs (61% elective-area educators (e.g., business, technology, and health), 39% core-area educators (e.g., math and	Participants responded to one item: "Has the incidence of bullying declined in the classroom since the policy was put in	Results showed that 21% of elective-area educators and 26% of core-area educators reported that the incidence of bullying had declined since the adoption of the policy,

		high schools.	science)); response rate = 21% for core-area educators and 33% for elective-area educators	place?"	11% of elective-area educators and 4% of core-area educators reported that the incidence had not declined, and 68% of elective-area educators and 70% of core-area educators were not sure.
Isom, 2014	To understand teacher perceptions of bullying and the effectiveness of an anti-bullying policy in a suburban school district.	Qualitative, cross-sectional study in a school district in the southwestern United States using convenience sampling from high schools.	6 teachers; 67% female and 33% male; 100% White; response rate not reported	Participants' perceptions of the district anti-bullying policy were collected via interviews, journals, and observations. Data were analyzed using thematic analysis.	Four of the six participants (67%) stated that the policy was effective to some degree and two participants (33%) found the policy ineffective. One teacher stated that the policy was effective for bullying that occurs at school but was less effective for cyber-bullying. Another teacher stated that students knew about the policy and bullying among students was low. Another teacher felt that the policy was not consistently implemented and personnel did not know how to respond to bullying.
Ju, 2012	To explore the effectiveness of anti-bullying policies in high schools from the student perspective.	Mixed-methods, cross-sectional study in Providence, Rhode Island using convenience sampling of recent high school graduates.	80 students; 54% female and 46% male; 95% White, 3% Black, and 2% other; response rate = 96%	Participants responded to one item: "Anti-bullying policies make a beneficial impact in the effort to prevent bullying in high school." Participants also entered qualitative comments to elaborate on their responses.	The beneficial impact of bullying policies was rated a 3.6 on average on a Likert scale of 1 (*strongly disagree*) to 6 (*strongly agree*), which indicates moderate agreement. Five of the seven comments (71%) related to this item suggested that the school anti-bullying policies were effective and two comments

					(29%) indicated that policies were not helpful because they were ignored or people were not made aware of them.
Khoury-Kassabri 2011	To examine individual and contextual factors that explain students' victimization by peers among Jewish and Arab students.	Quantitative, cross-sectional study in Israel using stratified sampling from Arab and Jewish elementary schools.	3,375 students; response rate = 98% 120 teachers; response rate = 78% 47 schools; response rate = 64%	Students completed an 8-item subscale about the school anti-aggression policy (α = .87). Students also completed a 17-item, 3-factor scale measuring victimization experiences: physical victimization (α = .76), verbal victimization (α = .69), and relational victimization (α = .68).	Three-level hierarchical linear modeling results showed no significant associations between school anti-aggression policy scores and rates of physical victimization (b = 0.36, n.s.), verbal victimization (b = –0.22, n.s.), and relational victimization (b = 0.06, n.s.).
Kosciw & Diaz, 2006	To examine the school experiences of LGBTQ students.	Mixed-methods, cross-sectional study in the United States using convenience sampling from websites, listservs, and youth-serving groups and organizations.	1,732 students in elementary, middle, and high schools; 69% White, 10% Hispanic/Latino, 7% Black, 5% Asian, 5% multiracial, 4% American Indian, and 2% other; 52% cisgender female, 38% cisgender male, 11% transgender/genderqueer; mean age = 16; 62% gay/lesbian, 27% bisexual, 11% queer/other; response rate not reported	Participants reported whether or not their school had an anti-bullying policy and if it enumerated protections based on sexual orientation and gender identity. Participants also responded to 22 items on experiences of physical, verbal, relational, electronic, and sexual victimization in school. Using 3 items, participants also reported on the frequency that school personnel intervened when anti-LGBTQ remarks were made in	Significantly fewer youth reported victimization based on their sexual orientation (32%) in schools with comprehensive anti-bullying policies than those in schools with no policies (40%) or general policies without enumerated protections (41%). Significantly more youth reported that school personnel intervened when homophobic remarks were made in their presence in schools with comprehensive anti-bullying policies (25%) than those in schools with no policies (16%) or general policies without enumerated protections (12%). Significantly more youth

				their presence and the effectiveness of staff responses to harassment	reported that school personnel effectively responded to homophobic harassment in schools with comprehensive anti-bullying policies (56%) than those in schools with no policies (39%) or general policies without enumerated protections (39%).
Kosciw, Diaz, & Greytak, 2008	To examine the school climate experiences of LGBTQ students, the negative effects of a hostile school climate on educational and psychological well-being, reporting and responding to victimization experiences, and the presence and influence of supportive resources.	Mixed-methods, cross-sectional study in the United States using convenience sampling from websites, listservs, and youth-serving groups and organizations.	6,209 students in elementary, middle, and high schools; 64% White, 13% Hispanic/Latino, 6% Black, 6% American Indian, 5% multiracial, and 4% Asian; 58% cisgender female, 33% cisgender male, 9% transgender/genderqueer; mean age = 16; 54% gay/lesbian, 42% bisexual, 5% queer/other; response rate not reported	Participants reported whether or not their school had an anti-bullying policy and if it enumerated protections based on sexual orientation and gender identity. Participants also responded to 23 items on experiences of physical, verbal, relational, electronic, and sexual victimization in school. Using 3 items, participants also reported on the frequency that school personnel intervened when anti-LGBTQ remarks were made in their presence and the effectiveness of staff responses to harassment	Youth in schools with a comprehensive anti-bullying policy experienced significantly lower levels of victimization based on their sexual orientation ($M = 4.72$) than those in schools with no policy ($M = 5.47$) and marginally significantly lower levels in schools with a general policy ($M = 5.08$). Significantly more students reported that school personnel frequently intervened when homophobic remarks and negative remarks about gender expression were made in their presence in schools with comprehensive anti-bullying policies (29% and 23%, respectively) than those in schools with no policies (13% and 11%, respectively) or general policies without enumerated protections (18% and 15%, respectively). Significantly more youth reported that school staff were effective in addressing

					harassment in schools with a comprehensive policy (46%) than those in schools with no policy (26%) or a general policy (33%). Students who lived in states with comprehensive anti-bullying laws reported significantly lower rates of victimization because of sexual orientation and gender identity than those in states with a general law or no law. Students who lived in states with comprehensive anti-bullying laws reported significantly lower rates of victimization because of sexual orientation and gender identity than those in states with a general law or no law.
Kosciw, Greytak, Diaz, & Bartkiewicz, 2010	To examine the school climate experiences of LGBTQ students, the negative effects of a hostile school climate on educational and psychological well-being, reporting and responding to victimization experiences, and the presence and influence of supportive resources.	Mixed-methods, cross-sectional study in the United States using convenience sampling from websites, listservs, and youth-serving groups and organizations.	7,261 students in elementary, middle, and high schools; 67% White, 14% Hispanic/Latino, 10% multiracial, 4% Black, 3% Asian, 1% Middle Eastern, 1% American Indian; 57% cisgender female, 33% cisgender male, 10% transgender or genderqueer; mean age = 16; 61% gay/lesbian, 32% bisexual, 5% queer/other, 3% questioning; response rate not reported	Participants reported whether or not their school had an anti-bullying policy and if it enumerated protections based on sexual orientation and gender identity. Participants also responded to 23 items on experiences of physical, verbal, relational, electronic, and sexual victimization in school. Using 3 items, participants also reported on the frequency that school	Youth in in schools with comprehensive anti-bullying policies reported less frequent harassment based on their sexual orientation or gender identity than those in schools with no policies or general policies without enumerated protections. Significantly more students reported that school personnel frequently intervened when homophobic remarks and negative remarks about gender expression were made in their presence in schools with comprehensive anti-bullying policies (27% and 17%, respectively) than

				personnel intervened when anti-LGBTQ remarks were made in their presence and the effectiveness of staff responses to harassment	those in schools with no policies (10% and 9%, respectively) or general policies without enumerated protections (16% and 13%, respectively). Significantly more youth reported that school staff were effective in addressing harassment in schools with a comprehensive policy (41%) than those in schools with no policy (29%) or a general policy (36%). Students who lived in states with comprehensive anti-bullying laws reported significantly lower rates of victimization because of sexual orientation and gender identity than those in states with general laws and marginally lower rates than those in states with no law.
Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012	To examine the prevalence of anti-LGBTQ victimization, the effects of victimization on student achievement and well-being, and the utility of interventions to improve the school climate.	Mixed-methods, cross-sectional study in the United States using convenience sampling from websites, listservs, and youth-serving groups and organizations.	8,584 students in elementary, middle, and high schools; 68% White, 15% Hispanic/Latino, 9% Multiracial, 4% Black, 2% Asian, 1% Middle Eastern, and 1% American Indian; 50% cisgender female, 35% cisgender male, 15% transgender/genderqueer; mean age = 16; 61% gay/lesbian, 27% bisexual, 8% queer/other, 4% questioning; response rate not reported	Participants reported whether or not their school had an anti-bullying policy and if it enumerated protections based on sexual orientation and gender identity. Participants also responded to 23 items on experiences of physical, verbal, relational, electronic, and sexual victimization in school. Using 3 items,	Significantly fewer youth reported victimization based on their sexual orientation (22%) and gender identity (25%) in schools with comprehensive anti-bullying policies than those in schools with no policies (36% and 38%, respectively) or general policies without enumerated protections 32% and 34%, respectively). Significantly more students reported that school personnel frequently intervened when homophobic

				participants also reported on the frequency that school personnel intervened when anti-LGBTQ remarks were made in their presence and the effectiveness of staff responses to harassment	remarks and negative remarks about gender expression were made in their presence in schools with comprehensive anti-bullying policies (29% and 21%, respectively) than those in schools with no policies (8% and 5%, respectively) or general policies without enumerated protections (16% and 8%, respectively). Significantly more youth reported that school staff were effective in addressing harassment in schools with a comprehensive policy (56%) than those in schools with no policy (29%) or a general policy (36%). Students who lived in states with comprehensive anti-bullying laws reported significantly lower rates of victimization because of sexual orientation and gender identity than those in states with no law or a general law.
Kosciw, Greytak, Palmer, & Boesen, 2014	To examine the prevalence of anti-LGBTQ victimization, the influence of school policies and practices on school experiences for LGBTQ students, the effects of school climate on education and well-being, and	Mixed-methods, cross-sectional study in the United States using convenience sampling from websites, listservs, and youth-serving groups and organizations.	7,898 students in elementary, middle, and high schools; 68% White, 15% Hispanic/Latino, 9% multiracial, 3% Black, 3% Asian, 1% Middle Eastern, and 1% American Indian; 32% cisgender male, 44% cisgender female, 24% transgender/genderqueer; mean age = 16; 59%	Participants reported whether or not their school had an anti-bullying policy and if it enumerated protections based on sexual orientation and gender identity. Participants also responded to 20 items on experiences of physical, verbal,	Significantly fewer youth reported victimization based on their sexual orientation (18%) and gender identity (20%) in schools with comprehensive anti-bullying policies than those in schools with no policies (38% and 35%, respectively) or general policies without enumerated protections (28% and 28%,

	school climate resources and supports.		gay/lesbian, 32% bisexual/pansexual, 7% queer/other, 3% questioning; response rate not reported	relational, electronic, and sexual victimization in school. Using 3 items, participants also reported on the frequency that school personnel intervened when anti-LGBTQ remarks were made in their presence and the effectiveness of staff responses to harassment	respectively). Significantly more students reported that school personnel frequently intervened when homophobic remarks and negative remarks about gender expression were made in their presence in schools with comprehensive anti-bullying policies (29% and 21%, respectively) than those in schools with no policies (8% and 5%, respectively) or general policies without enumerated protections (16% and 8%, respectively). Significantly more youth reported that school staff were effective in addressing harassment in schools with a comprehensive policy (50%) than those in schools with no policy (17%) or a general policy (32%).
Lee, 2007	To identify different levels of ecological factors influencing bullying in schools.	Quantitative, cross-sectional study in South Korea using stratified random sampling from middle schools.	1,238 students; 58% male and 42% female; 100% Asian; 5% age 13, 33% age 14, 38% age 15, and 24% age 16; response rate = 92%	Participants responded to a 3-item factor on perceived effectiveness of the school's anti-bullying policy (α = .79). Participants also responded to a 15-item, 3-factor scale of bullying perpetration: relational (α = .84), verbal (α = .81), physical (α = .78).	Correlational results showed that perceived policy effectiveness was inversely related to relational bullying (r = -.08*) and verbal bullying (r = -.05*) perpetration. Policy effectiveness was not correlated with physical bullying perpetration (r = -.03, n.s.). Structural equation modeling results showed no relationships between policy effectiveness and relational (β = -.01, n.s.), verbal (β = -.00,

					n.s.), and physical (β = -.01, n.s.) bullying perpetration.
O'Brennan, Waasdorp, & Bradshaw, 2014	To examine dimensions of school connectedness in relation to staff members' comfort intervening in bullying situations.	Quantitative, cross-sectional study in the United States using convenience sampling from a national professional association of educators working in elementary, middle, and high schools.	5,064 teachers and education support professionals (57% education support professionals, 43% teachers); 80% female and 20% male; 89% White, 5% Black, 4% Hispanic/Latino, 2% other; mean age = 46.2 (SD = 14.6); response rate = 31%	Participants were asked whether or not their school district had an anti-bullying policy. Participants also responded to a 4-item factor on their comfort intervening in physical, verbal, relational, and electronic bullying (α = .87). Participants responded to a 6-item factor on their comfort intervening in discriminatory bullying among students (α = .95).	Structural equation modeling results showed no significant relationship between having a bullying policy and comfort intervening in general bullying (b = 0.03, n.s.) or discriminatory bullying (b = 0.02, n.s)
Ordonez, 2006	To examine the relationship between comprehensiveness of anti-bullying policies in low socio-economic elementary schools and the prevalence of bullying.	Mixed methods, cross-sectional study in Indianapolis, Indiana using convenience sampling from elementary schools.	231 students; 50% male and 50% female; 52% Black, 17% White, 13% multiracial, 11% Hispanic/Latino, and 7% other; mean age = 9.6; response rate not reported 6 schools; response rate = 75% 24 students, 24 parents, and 24 school personnel for focus groups at each school	Participants responded to a 16-item, 4-factor scale measuring bullying victimization: physical bullying (α = .69), verbal bullying (α = .72), social bullying (α = .69), and property bullying (α = .68), overall (α = .85). Focus group participants responded to questions about their school's bullying policy and strategies. Then, transcripts were content analyzed to identify the presence or absence of 16 anti-bullying	One-way MANOVA results showed that students in schools with high bullying policy comprehensiveness scores reported lower rates of physical and verbal bullying victimization (η^2 = .124*, η^2 = .024*) than students in schools with low policy scores. Policy comprehensiveness scores were not significantly related to social and property bullying victimization (η^2 = .008, n.s.; η^2 = .011, n.s.).

				strategies.	
Phoenix et al., 2006	To examine the presence of homophobic language and verbal harassment in high schools.	Quantitative, cross-sectional study in North Carolina using convenience sampling from high schools.	904 students; 20% 9th graders, 24% 10th graders, 30% 11th graders, and 24% 12th graders; response rate not reported 6 high schools	Students responded to 3 items about the frequency of homophobic verbal harassment and 1 item about the frequency that school personnel intervened when homophobic remarks were made in their presence. Each school's policy against harassment, bullying, and discrimination was examined for inclusion of sexual orientation.	Students in schools with a policy that prohibited harassment, bullying, or discrimination based on sexual orientation reported hearing anti-gay comments (e.g., "that's so gay" or "you're so gay"), homophobic slurs (e.g., "faggot" or "dyke"), and other homophobic remarks significantly less often than in schools with non-inclusive policies ($\chi^2 = 40.1^*$, $\chi^2 = 72.7^*$, and $\chi^2 = 61.6^*$, respectively). School personnel were more likely to intervene when homophobic remarks were made in their presence in schools with inclusive policies ($\chi^2 = 27.4^*$).
Samara & Smith, 2008	To investigate schools' use of anti-bullying strategies and the effect of required legal policies.	Mixed-methods, repeated cross-sectional study in England using random sampling of early, primary, and secondary schools that had requested a state-sponsored anti-bullying packet in 1995 or 2001.	257 schools; 109 schools at wave 1 and 148 schools at wave 2; 14% early schools, 58% primary schools, and 28% secondary schools; response rate = 25% at wave 1 and 29% at wave 2	Wave 1 data were collected in 1995, in 1999 schools were legally required to have an anti-bullying policy, and wave 2 data were collected in 2001. A representative from each school responded to 1 item about bullying: "Since receiving the pack, how do you think the frequency of bullying has changed in your	Results showed that respondents' perceptions about changes in the frequency of bullying were not significantly different between before (M = 4.6, SD = .09) and after (M = 4.5, SD = 0.8) schools were legally required to have an anti-bullying policy. Qualitative comments about the evidence upon which their responses were based included perceptions of students' behavior and reported

				schools?"	incidents of bullying.
Sherer & Nickerson, 2010	To understand the current status of anti-bullying practices in American schools.	Quantitative, cross-sectional study in the United States using systematic random sampling from a national professional association of school psychologists working in elementary, middle, and high schools.	213 school psychologists; 78% female and 22% male; response rate = 43%	Out of a list of 20 anti-bullying strategies, participants identified strategies that were most and least effective in their schools	25% of participants indicated that an anti-bullying policy was the most effective strategy to reduce bullying and 20% indicated that it as the most ineffective strategy.
Terry, 2010	To examine the implementation and the effectiveness of a state anti-bullying law.	Mixed-methods, cross-sectional study in South Carolina using convenience sampling of graduates of a master's degree program.	120 teachers; response rate = 50%	Participants responded to one item: "Since the implementation of the Safe Schools Climate Act, do you believe that harassment, intimidation, and bullying are still a problem in South Carolina's K-12 schools?" Participants also entered comments to elaborate on their quantitative responses.	Since the passage of the anti-bullying law, 79% of teachers believed that bullying was still a problem in schools, 5% did not believe it was still a problem, and 16% didn't know. Qualitative comments showed that many teachers felt that the law had done little to change student behavior or the school environment. Other teachers commented that the law had not been put into action and that students, school personnel, and parents were unaware of the law.
Woods & Wolke, 2003	To investigate the prevalence of bullying and the relationship between the quality of school	Mixed-methods, cross-sectional study in a region in England using convenience	2, 377 students; 51% male and 49% female; 90% White and 10% people of color; mean age = 7.6 (SD = 1.0); response rate = 90%	Participants responded to a 20-item scale about direct and relational bullying victimization and perpetration.	Students in schools with high quality bullying policies reported lower rates of direct bullying victimization on the playground compared to

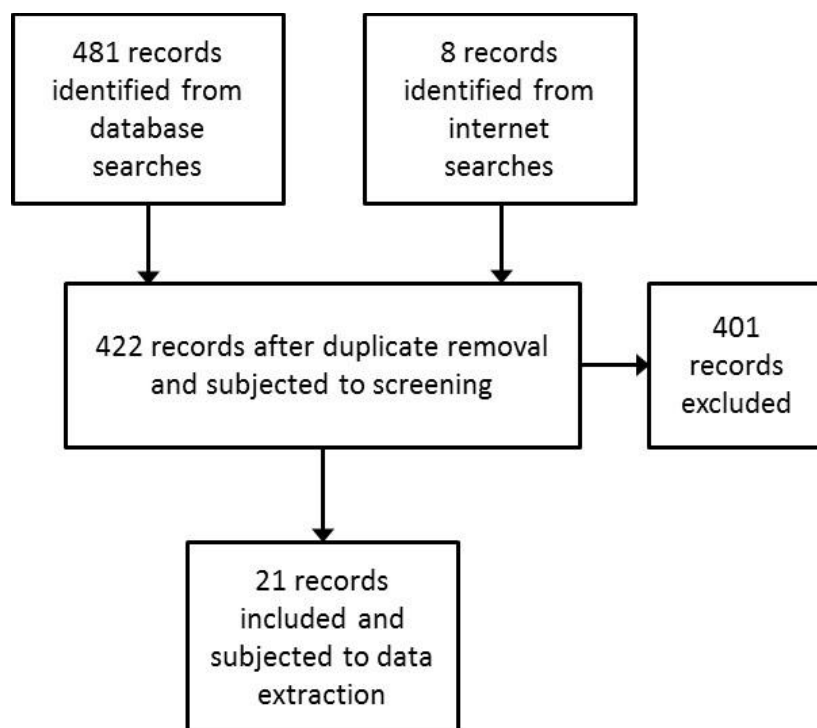|				
anti-bullying policies and rates of bullying in schools.	sampling of elementary schools.	39 elementary schools	Participating schools were asked to submit their anti-bullying policies to researchers which were content analyzed using 21 criteria related to policy quality and implementation requirements.	students in schools with low or moderate quality policies ($\chi^2 = 9.57$*). Students in schools with high quality bullying policies reported higher rates of relational bullying perpetration compared to students in schools with low or moderate quality policies ($\chi^2 = 12.41$*). No significant results were found between policy content and relational bullying victimization or direct bullying perpetration.

* $p < .05$

† $p < .1$

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Figure 1.1. Flow diagram depicting the identification, screening, and inclusion of studies.

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PAPER II

FIDELITY OF IMPLEMENTAITON OF A STATE ANTI-BULLYING POLICY WITH A
FOCUS ON PROTECTED SOCIAL CLASSES

Bullying in American schools is a pervasive and ongoing threat to the health and school

success of youth. A meta-analysis of 21 U.S. studies showed that on average 18% of youth were

involved in bullying perpetration, 21% of youth were involved in bullying victimization, and 8%

of youth were involved in both perpetration and victimization (Cook, Williams, Guerra, & Kim,

2010). In addition, the Youth Risk Behavior Survey, which started measuring bullying

victimization in 2009, has shown that the prevalence rate has remained at 20% since that time

(Eaton et al., 2010; Eaton et al., 2012; Kann et al., 2014). Bullying victimization has been linked

with a number of deleterious outcomes, including absenteeism, low academic performance, low

self-esteem, feelings of loneliness, depression, suicidal thoughts and behavior, anxiety,

psychosomatic problems (e.g., sleep difficulties, bed wetting, headaches, stomach aches, and

neck or back pain), physical illness, and psychotic symptoms (Aluede, Adeleke, Omoike, &

Afen-Akpaida, 2008; Arseneault, Bowes, & Shakoor, 2010; Copeland, Wolke, Angold, &

Costello, 2013; Dake, Price, & Telljohann, 2003; Gini & Pozzoli, 2009; Gini, Pozzoli, Lenzi, &

Vieno, 2014; Hawker & Boulton, 2000; Kim & Leventhal, 2008; Klomek, Sourander, & Gould,

2010; Nakamoto & Schwartz, 2010; Reijntjes et al., 2011; Reijntjes, Kamphuis, Prinzie, &

Telch, 2010; Rigby, 2003; Ttofi, Farrington, Lösel, & Loeber, 2011a; Wong, 2009).

Involvement in bullying perpetration has been liked with truancy, low academic performance,

dropout, depressive symptoms, suicidal ideation and behavior, and violent and criminal behavior

(e.g., assault, robbery, vandalism, weapon-carrying, and rape; Aluede, Adeleke, Omoike, & Afen-Akpaida, 2008; Dake, Price, & Telljohann, 2003; Farrington, Ttofi, & Lösel, 2011; Jankauskiene, Kardelis, Sukys, & Kardeliene, 2008; Kim & Leventhal, 2008; Klomek, Sourander, & Gould, 2010; Ma, Phelps, Lerner, & Lerner, 2009; Ttofi, Farrington, & Losel, 2012; Ttofi, Farrington, Lösel, & Loeber, 2011b).

Policy is one of several intervention approaches that have been developed to reduce bullying. Currently, the United States does not have a federal law against school bullying; however, 49 states have enacted anti-bullying laws (Bully Police USA, 2014). These laws apply to approximately 98,000 K-12 public schools, with the goal of protecting over 50 million students from involvement in bullying (Snyder & Dillow, 2013; Stuart-Cassel, Bell, & Springer, 2011). Despite the widespread adoption of anti-bullying policies, research on the implementation and effectiveness of these interventions is limited.

In order for an intervention to accomplish its intended effects, it must first be implemented with a high degree of fidelity (Carroll et al., 2007; Durlak & DuPre, 2008; Fraser, Richman, Galinsky, & Day, 2009). In the context of policy, fidelity refers to the extent to which a policy is implemented as intended based on the directives expressed in the policy. Researchers have documented considerable variability in the fidelity of implementation of policy interventions for bullying. For example, 51% to 98% of educators reported that their school systems had adopted a local anti-bullying policy in compliance with their state's policy (Bradshaw, Wassdorp, O'Brennan, & Gulemetova, 2011; Hedwall, 2006; Jordan, 2014; MacLeod, 2007; Robbins, 2011; Smith-Canty, 2010; Terry, 2010). In terms of training and notification regarding bullying policies, 46% to 94% of educators reported receiving training on the policy (Bradshaw et al., 2011; Hedwall, 2006; Holmgreen, 2014; Robbins, 2011; Smith-

Canty, 2010; Terry, 2010), and 56% to 84% of educators reported that students were notified about the policy (Holmgreen, 2014; Jordan, 2014; LaRocco, Nestler-Rusack, & Freiberg, 2007; Robbins, 2011; Smith-Canty, 2010). Regarding school procedures, 60% to 94% of educators indicated that their school maintained procedures for reporting bullying (Holmgreen, 2014; LaRocco et al., 2007; Robbins, 2011), 78% to 92% of educators indicated that their school had procedures for investigating reports or complaints about bullying (Holmgreen, 2014; LaRocco et al., 2007; Smith-Canty, 2010), and 52% to 80% of educators indicated that their school provided mental health assistance to students involved in bullying (Hedwall, 2006; Holmgreen, 2014; Smith-Canty, 2010). These findings show that implementation fidelity varies across study locations and policy components.

Even less is known about differential implementation of bullying policies that include protection of social identities and status characteristics (e.g., race, national origin, sexual orientation, and disability status). Several federal as well as state laws enumerate protected social classes. A protected class is a group of people with a common characteristic who are legally protected from discrimination or harassment on the basis of that characteristic. These protections can be applied to various areas of society, including voter registration, education, employment, and housing. For example, the protected classes enumerated in the Fair Housing Act of 1968 included race, color, sex, national origin, and religion. Thus, discrimination in the sale, rental, or financing of housing based on these characteristics was prohibited across the United States. This law was needed to redress historical discrimination in housing that confined African Americans to impoverished neighborhoods with substandard schools (O'Brien, 2009). State laws can also enumerate protected classes. In terms of school bullying, 37% of state anti-bullying laws enumerate protected social classes (Stuart-Cassel, Bell, & Springer, 2011).

However, these laws vary in terms of which social characteristics are included or excluded as protected classes.

The inclusion of protected social classes in anti-bullying policies is relevant because certain population groups are more likely to be targeted for and suffer the consequences of bullying. Indeed, bullying is often motivated by prejudice toward stigmatized groups who have little to no choice about the identity or status characteristic for which they targeted (Elamé, 2013). Studies show that the following population groups experience high rates of bullying victimization:

- students who are lesbian, gay, bisexual, transgender, or queer (LGBTQ; Berlan, Corliss, Field, Goodman, & Austin, 2010; Espelage, Aragon, Birkett, & Koenig, 2008; Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012; McGuire, Anderson, Toomey, & Russell, 2010; Varjas et al., 2008);

- students with disabilities or special health needs (Baumeister, Storch, & Geffken, 2008; Carter & Spencer, 2006; Hamiwka et al., 2009; Marini, Fairbairn, & Zuber, 2001; Mepham, 2010; Mishna, 2003; Rose, Monda-Amaya, & Espelage, 2010; Saylor & Leach, 2009; Storch et al., 2004; Twyman et al., 2010; Van Cleave & Davis, 2006);

- students who are overweight or obese (Fox & Farrow, 2009; Gray, Kahhan, & Janicke, 2009; Janssen, Craig, Boyce, & Pickett, 2004; Wang, Iannotti, & Luk, 2010);

- students from lower socioeconomic backgrounds (Due et al., 2009; Tippett & Wolke, 2014);

- students who are immigrants or the children of immigrants (Peguero, 2008; Peguero, 2009; Qin, Way, & Rana, 2008); and

- students who are members of certain racial/ethnic groups (e.g., American Indian, Asian, Multiracial, Pacific Islander, and White; Eaton et al., 2010; Eaton et al., 2012; Kann et al., 2014).

Given that certain students are more likely to be targeted for bullying based on social characteristics, enumerated policy statements may ameliorate historical and continuing patterns of victimization in which youth who are vulnerable or members of minority groups are targeted for bullying. However, only 37% of state anti-bullying laws enumerate protected social classes (Stuart-Cassel, Bell, & Springer, 2011), and no studies have investigated if anti-bullying policy components have been implemented consistently across student population groups in schools with enumerated policies. This study begins to fill this gap by examining the extent to which the School Violence Prevention Act of 2009 (SVPA), a state anti-bullying law, was implemented as intended in North Carolina (NC). The SVPA is comprised of a number of components typically included in bullying policies and an enumerated statement of protected social classes, which included race, national origin, religion, gender, socioeconomic status, academic status, sexual orientation, gender identity, physical appearance, and disability (Stuart-Cassel, Bell, & Springer, 2011).

Methods

Policy Design

The intervention evaluated in this study was a policy intervention: the SVPA, which was signed into law on June 23, 2009. In the law, bullying was defined as verbal, written, electronic, or physical actions that induced fear of harm or created a hostile environment for a student. Such behaviors were prohibited as well as bullying behavior based on actual or perceived race, color, ancestry, national origin, religion, gender, socioeconomic status, academic status, sexual

orientation, gender identity, physical appearance, and disability. The law applied to behavior on school property, at school-sponsored functions, and on school buses. According to the law, school personnel who witnessed or possessed information about bullying were required to report incidents to the appropriate school officials. On the other hand, students and school volunteers were encouraged but not required to report bullying incidents.

The law also required that school districts adopt their own local anti-bullying policies by December 31, 2009. Each local policy had to include the provisions described above in terms of the definition of bullying, prohibition of bullying behaviors, enumerated statuses protected, scope of the policy, and bullying reporting requirements as well as other components:

- Behavioral expectations for students and school personnel.

- Procedures for reporting bullying incidents, including anonymous reporting.

- Identification of a school employee designated to investigate reports of bullying.

- Procedures for investigating reports of bullying incidents.

- Prohibition of reprisal or retaliation against individuals who reported bullying incidents.

- Consequences and appropriate remedial actions for students who committed acts of bullying.

- Plans to publicize and disseminate the local policy.

- Inclusion of the local policy in student and employee handbooks.

- Inclusion of the local policy in employee training.

The quality of the content of anti-bullying policies shapes their capacity to effectively reduce bullying. Three evaluations have been completed on the content of the SVPA. First, the SVPA received a B+ score on a scale of A++ to F by a national advocacy organization concerning school bullying policy in the United States (Bully Police USA, 2009). These grades were based on the inclusion of 12 criteria (High, n.d.), 9 of which are recommended best

practices for school bullying policy (Nickerson, Cornell, Smith, & Furlong, 2013). Second, the SVPA contains 13 out of 16 or 81% of key policy components identified in a national review of state anti-bullying laws by the U.S Department of Education (Stuart-Cassel, Bell, & Springer, 2011). These 16 policy components represent factors identified in the theoretical or empirical literature that promoted policy implementation and/or effectiveness. Third, a study found that the SVPA included 67% of protective factors identified in the literature as associated with reduced bullying behaviors, risk of bullying, or consequences from bullying (Weaver, Brown, Weddle, & Aalsma, 2013). The protective factor score for the SVPA was in the top 15% of state policy scores. These three evaluations suggest that the content of the SVPA is good in that a majority of its components can potentially reduce or prevent school bullying.

Study Design

This study involved a cross-sectional survey of educators administered a year after school districts were required to develop and implement their own local anti-bullying policies. Because school-level educators are the primary implementers of education policy, we surveyed members of a statewide professional association of educators and school employees in NC. The survey was announced in an email message sent through the association's membership listserv. The email invitation contained a brief description of the survey, stating that it was focused on bullying, was optional and anonymous, and could be completed in 15 minutes. The email also contained a link to the welcome and informed consent page of the online survey. An online survey format was selected because of several advantages: participants can respond to a Web survey at times and places convenient for them, participants can often complete Web surveys quickly, and participants may be less affected by social desirability bias in their responses

because they are not directly disclosing the information to another person (Evans & Mathur, 2005; Granello & Wheaton, 2004; Rhodes, Bowie, & Hergenrather, 2003).

Participants initially completed several demographic questions and were asked to identify the school and district in which they worked, followed by items concerning the implementation of the SVPA. No material incentives were used to solicit participation. The survey was available from mid November 2010 to early January 2011. It can take 3 to 5 years from the time a school-wide policy or program is adopted to the time it can be implemented with high fidelity and have a measureable effect (Bradshaw, Reinke, Brown, Bevans, & Leaf, 2008; Cooper, Fusarelli, & Randall, 2004). Evaluating fidelity may be more useful within the early stages of implementation to identify implementation problems and problems inherent in the policy design that may need to be addressed. Therefore, we decided to collect data on implementation a year following the date that school districts were required to enact local anti-bullying policies.

Participants

Of the approximately 5,000 educators who were invited to participate, 664 (13.3%) responded to the survey to some extent. However, 30 participants were excluded because they did not complete the survey beyond the demographic items or because they worked in private schools, which the SVPA does not apply to. Thus, a total of 634 participants were included for data analysis in this study, which was 12.7% of the educators invited to participate. Participants included 634 educators: 78% teachers, 10% education support professionals, 4% school administrators, 4% school counselors, 3% school social workers, and 1% school nurses. The racial/ethnic breakdown of the sample was 79% White/Caucasian, 17% Black/African American, 2% Hispanic/Latino/Latina, 1% American Indian or Alaska Native, and 3% multiracial/multiethnic. The sample included 84% females and 16% males. The grade levels at

the schools where participants worked varied with 40% in elementary schools, 23% in middle schools, 30% in high schools, 3% in elementary-middle schools, 3% in middle-high schools, and 1% in K-12 schools. Respondents were employed in 93 (81%) of the 115 school districts in NC.

Measures

The survey was designed by four individuals who were involved in advocating for the passage of the SVPA and included one educator, one parent, one education researcher, and one social work researcher. Survey items were constructed based on the content of the SVPA and assessed implementation fidelity of nine policy components. Three items focused on general training on the law and knowledge about bullying reporting procedures, and six items focused on implementation fidelity across social identity and status characteristics (i.e., race, national origin, gender, socioeconomic status, sexual orientation, gender identity, physical appearance, and disability status), which were enumerated in the SVPA and represent groups who are often targeted for bullying.

Employee training on the policy. Participants were asked whether or not they had received training on the SVPA, with response options of *yes* and *no*.

Employee knowledge of bullying procedures. Participants were asked how often they knew whom to report incidents of bullying to at their school, with response options of *never*, *rarely*, *sometimes*, *most times*, and *always*.

Student knowledge of bullying procedures. Participants were asked how often students at their school knew whom to report incidents of bullying to, with response options of *never*, *rarely*, *sometimes*, *most times*, and *always*.

Inclusion of protected classes in the policy. Participants were asked to identify which social statuses were protected from bullying in their school's local policy. Participants could

select *I don't know* for the item or select *yes* or *no* beside each of eight social statuses (i.e., race, national origin, gender, socioeconomic status, sexual orientation, gender identity, physical appearance, and disability status). The sequential order of the eight social characteristics in the survey items mirrors the order in which they were listed in the SVPA policy document.

 Employee training about protected classes. Participants were asked if they had received training about bullying based on the eight social statuses, and participants could select *I don't know* for the item or select *yes* or *no* beside each of the eight social statuses.

 Student knowledge of protected classes. Participants were asked if students in their schools had been informed that bullying was prohibited based on certain social statuses. Participants could select *I don't know* for the item or select *yes* or *no* beside each of the eight social statuses.

 Employee reporting of bullying incidents. Participants were asked how often employees at their school reported witnessed bullying incidents based on the eight social characteristics to the designated school official. Response options included *never*, *rarely*, *sometimes*, *most times*, and *always*.

 Investigation of reports of bullying. Participants were asked how often school officials investigated reports of bullying based on the eight social status characteristics. Response options included *never*, *rarely*, *sometimes*, *most times*, and *always*.

 Remedial action for bullying perpetrators. Participants were asked how often appropriate remedial action was given to students who perpetrated bullying based on the eight social status characteristics. Response options included *never*, *rarely*, *sometimes*, *most times*, and *always*.

Results

The data were analyzed using SPSS (version 21; IBM, 2012). Descriptive statistics were calculated to examine the extent of implementation of the various components of the SVPA that one year after its passage. Results show that 37% of educators had received training on the SVPA and 63% had not. When asked how often they knew whom to report incidents of bullying to, 1% of educators indicated never, 1% indicated rarely, 7% indicated sometimes, 16% indicated most times, and 75% indicated always. When asked how often students knew whom to report incidents of bullying to, 0% of educators indicated never, 4% indicated rarely, 19% indicated sometimes, 37% indicated most times, and 40% indicated always.

Table 1 shows response percentages for the inclusion of protected social classes in educators' local policies, training received by educators about social classes protected from bullying, and informing students about social classes protected from bullying. A series of Cochran's (1950) Q tests were used to detect significant differences in implementation among the eight protected social classes using the proportion of *yes* vs. *no* responses. The Cochran's Q test examines differences in proportions of binary responses measured under three or more conditions from the same sample. Cochran's Q test results showed that there were significant differences across the social statuses in terms of inclusion in the local policy, $\chi^2(7, 462) = 148.45$, $p < .05$; training received by educators, $\chi^2(7, 498) = 52.12$, $p < .05$; and informing students, $\chi^2(7, 445) = 198.42$, $p < .05$.

Post-hoc analyses were performed using a series of McNemar (1947) symmetry chi-square tests with Bonferroni adjustment to examine differences between responses for all possible combinations of social status pairs. As shown in Table 3, race was most likely to be included in local anti-bullying policies. After race, gender was the status most likely to be included in local bullying policies, followed by national origin and disability status. Sexual

65

orientation and gender identity were the least likely to be included. In terms of employee training, race was the only social status that was significantly higher than all other statuses, which suggests that aside from race, educators have not received substantial training on addressing bullying based on national origin, gender, socioeconomic status, sexual orientation, gender identity, physical appearance, and disability. Students were most likely to have been informed that bullying based on race was prohibited, followed by national origin, gender, socioeconomic status, and disability status. Students were least likely to have been informed that bullying was prohibited based on sexual orientation and gender identity.

Table 2 shows the mean responses for three policy implementation actions by school personnel: reporting bullying incidents, investigating reports of bullying, and administering appropriate remedial consequences for bullying perpetrators. A series of one-way repeated measures ANOVAs were used to compare mean responses across the eight protected social statuses. Out of the 24 variables, 16 were normally distributed and 8 were skewed (i.e., outside the normal range of -1.0 to +1.0); however, ANOVA is robust to deviations from normality (Glass, Peckham, & Sanders, 1972; Harwell, Rubinstein, Hayes, & Olds, 1992; Khan & Rayner, 2003; Lix, Keselman, & Keselman, 1996). Mauchly's test of sphericity was used to examine the sphericity assumption for one-way repeated measures ANOVA and showed significant results, thus, the Greenhouse-Geisser correction was applied in each ANOVA to correct for the violation of the sphericity assumption (Vasey & Thayer, 1987). The one-way repeated measures ANOVA results showed that there were statistically significant differences across social statuses in personnel reporting of bullying incidents, $F(3.84, 1893.08) = 14.35$, $p < .05$; investigating reports of bullying, $F(4.28, 2068.12) = 12.90$, $p < .05$; and taking remedial action with bullies, $F(3.92, 1940.48) = 12.10$, $p < .05$.

Bonferroni post hoc pairwise comparisons were used to identify significant differences in mean responses among the social statuses; these results are shown in Table 3. In terms of reporting bullying, race-based incidents were significantly more often reported by educators than all other social statuses except disability. Bullying based on sexual orientation and gender identity were least often reported to officials. In terms of the investigation of reports of bullying, race-based incidents were more frequently investigated than all other social statuses except national origin and disability. Except for socioeconomic status, bullying based on sexual orientation and gender identity were significantly less often investigated compared to all other social statuses. In terms of taking remedial action with students who bullied others, action was significantly more often taken when bullying was based on race than all other social statuses except disability. In addition, remedial action was significantly more often taken when bullying was based on national origin versus sexual orientation and gender identity, and when bullying was based on disability status versus socioeconomic status, physical appearance, sexual orientation, and gender identity.

Discussion

The results indicate that the SVPA was not implemented with a high degree of fidelity one year following its enactment within schools. Most educators had not received training on the SVPA. Educators at the school level (i.e., principals, assistant principals, teachers, education support professionals, psychologists, counselors, social workers, and nurses) are tasked with implementing education policy on a daily basis with students and their colleagues; thus, training these educators is a first and requisite step in the implementation of a new policy (Fowler, 2013). Training helps guarantee that educators understand the requirements of a new policy and can act accordingly. In a national study, receiving training on implementing a bullying policy was

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positively associated with school staff comfort intervening in discriminatory bullying (O'Brennan, Waasdorp, & Bradshaw, 2014). Training on the SVPA may have fallen short because funds were not allocated for training by the state. The creation of a law is often a completely separate process than the allocation of funds to implement a law.

In addition, one-quarter of educators did not always know whom to report bullying incidents to in their schools. This lack of knowledge might have resulted from a lack of coordination and/or communication at the school level in terms of clearly designating the person(s) responsible for receiving bullying reports. Principals or assistant principals are typically responsible for receiving and investigating reports of bullying; however, school psychologists, counselors, and social workers are sometimes the designated employees (LaRocco et al., 2007; Smith-Canty, 2010). Designated employees may need additional training on proper follow-up with those involved in bullying.

Most educators reported that students did not always know whom to report bullying incidents to in their schools. Although the SVPA required local bullying polices to be included in student handbooks, the findings suggest that additional required routes of communication and dissemination are needed to adequately reach students. Other methods that have been used to publicize school bullying policies include teachers reviewing the policy with students during classroom orientations at the beginning of the school year, posting signs about the policy around the school, reviewing the policy at a school-wide assembly, posting the policy on school and district websites, sending notices to parents, and discussing the policy at PTO/PTA meetings (Holmgreen, 2014; LaRocco et al., 2007; Robbins, 2011; Smith-Canty, 2010).

The findings also suggest that the SVPA is not being implemented consistently across the protected social classes. Results showed inconsistent inclusion of protected social classes in

local anti-bullying policies despite the legal mandate to include all eight social statuses. These results are somewhat similar to the inclusion of social statuses in state anti-bullying laws. Of state anti-bullying laws that enumerate protected social classes, 100% include race, 94% include disability, 94% include sex or gender, 82% include national origin, 82% include sexual orientation, 71% include gender identity or expression, 29% include socioeconomic status, and 24% include physical appearance (Stuart-Cassel, Bell, & Springer, 2011). All bullying behaviors are harmful; however, harassment that is motivated by prejudice and attacks an aspect of someone's personal identity may be particularly harmful because it is an attack not only on a person but also their identity, which is integrated into one's inner self. Policies that enumerate protections based on social characteristics are necessary to reduce discriminatory bullying. However, the mere adoption of a policy with enumerated protections is not sufficient. Policies must be created with evidence-based components, supported with resources, implemented consistently and faithfully, paired with evidence-based intervention programs and practices, and administered with sufficient oversight by officials.

Results also showed that most educators had not received training on addressing bullying motivated by social prejudice. Among educators who had received training on discriminatory bullying, significantly more educators had been trained on bullying based on race than any other social class. In a national study, the area in which teachers indicated that they were most in need of additional training on intervening in prejudicial bullying was when it was based on sexual orientation and gender identity/expression (Bradshaw et al., 2011; Bradshaw, Wassdorp, O'Brennan, & Gulemetova, 2013). Although many of these teachers reported needing additional training on bullying intervention based on race, religion, gender, weight, and disability, these

areas of need were significantly lower than training needed on sexual orientation and gender identity/expression bullying (Bradshaw et al., 2011; Bradshaw et al., 2013).

In addition, some educators reported that their students were not informed about the prohibition of bullying based on any one of the protected social classes. Students were most likely to have been informed that bullying based on race was forbidden, and students were least likely to have been informed that bullying based on sexual orientation and gender identity were forbidden. Similarly, implementation of reporting, investigating, and remediating bullying behavior was highest for bullying based on race, followed by bullying based on disability. Bullying based on sexual orientation and gender identity showed far lower rates of implementation fidelity in these domains.

These differences in implementation may reflect a wider concern about racism, particularly in the form of racial harassment, in K-12 education and a lower level of concern with discrimination and harassment based on sexual orientation and gender identity. Of searches in the ERIC (Education Resources Information Center) and Education Full Text databases, over 2,000 records for the term "racism" were returned but less than 400 records were returned for the terms "heterosexism" or "homophobia." Although educational disparities persist for many social groups, there appear to be broader levels of consensus about the importance of some forms of discrimination and corrective actions as compared to others. In addition, educators may have been more inclined to address harassment and bullying based on race and disability due to numerous federal laws that apply to schools and mandate protections based on race and disability (e.g., Title VI of the Civil Rights Act of 1964, Title II of the Americans with Disabilities Act of 1990, and Section 504 of the Rehabilitation Act of 1973). Aside from the Matthew Shepard and James Byrd, Jr. Hate Crimes Prevention Act (2009) and Executive Order No. 13672 (2014)

regarding hiring and employment in the federal workforce, sexual orientation and gender identity are not included as protected social classes in any federal legislation.

In addition, lower levels of policy implementation actions concerning sexual orientation and gender identity may have been due to negative attitudes among educators toward LGBTQ people. In a national study, 51% of LGBTQ students reported that they had heard homophobic remarks from school personnel, and 55% of LGBTQ students reported that they had heard negative remarks about gender expression from school personnel, which may be particularly offensive to transgender students (Kosciw et al., 2014). Also, 42% of students reported that educators did not intervene when homophobic remarks were made in their presence, and 59% of students reported that educators did not intervene when negative remarks about gender expression were made in their presence. These findings suggest that many educators may hold anti-LGBTQ attitudes and do not know how to or do not care to intervene in instances of anti-LGBTQ verbal harassment.

Limitations

One limitation of this study was the use of convenience sampling; thus, caution should be taken when generalizing these results. Second, there may have been selection bias because the professional association from which we sampled was also part of the coalition of organizations who advocated for the passage of the SVPA; thus, the participants may have been overly critical in their assessment of the implementation of the SVPA. Third, there was a measurement limitation concerning questions about investigating incidents of bullying and carrying out appropriate remedial actions with students, which is often spearheaded by school administrators; however, our sample was primarily teachers, who may not have had accurate knowledge about these actions. Finally, there may have been social desirability bias because educators were

reporting on issues related to their colleagues, their workplaces, and their own behaviors regarding bullying among their students.

Future Research

In future studies, researchers should collaborate with state departments of education or public instruction in surveying educators about bullying and state-led intervention efforts. Such collaborations would provide larger, more representative samples. In addition to school personnel, students should be included as participants to gain their understanding of policy implementation actions within schools. Finally, research on bullying policy implementation should be longitudinal as implementation is an ongoing and evolving process, and data on implementation should be analyzed with outcome data on rates of student bullying to ascertain the relationship between fidelity of policy implementation and the primary outcome of bullying in schools.

<div align="center">

Implications for School Health

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The findings from this study have implications for promoting student health through bullying prevention and policy implementation. First, statewide bullying policies should enumerate protections for a range of social classes, especially those who are frequently targeted for harassment. According to Justice Anthony Kennedy in Romer v. Evans (1996), "enumeration is the essential device used to make the duty not to discriminate concrete and to provide guidance for those who must comply." However, the inclusion of enumerated language in a policy alone is insufficient to protect marginalized groups from bullying. Second, districts must be held accountable for adopting local anti-bullying policies in compliance with state laws. Approximately 43% of state anti-bullying laws require districts to submit their local policies for review by the state (Stuart-Cassel, Bell, & Springer, 2011). Third, legislators should allocate

funds to facilitate policy implementation. Funds could be used to provide adequate training to school personnel; develop materials to use for policy communication and dissemination; and appoint personnel in state departments of education, district offices, and schools who are responsible for coordinating anti-bullying efforts. Fourth, educators must receive training about bullying policy requirements and how to intervene in discriminatory bullying against any social group, even those whom educators may hold negative attitudes toward (e.g., LGBTQ students, undocumented immigrants, and obese students). All students deserve to be protected and feel safe at school.

Finally, school bullying policies should consist of specific language about requirements, such as the amount and format of training about bullying required by school personnel, multiple ways schools should publicize policies, time frames in which personnel must report and investigate bullying incidents, and the use of remedial actions with students involved in bullying (e.g., serious one-on-one talks, referral to the principal's office, referral to the intervention room, loss of privileges, detention, referral for mental health services, and functional behavioral assessment and behavioral intervention plans). Simply passing a law will not ensure that it will be put into action as intended. Policymakers and officials must provide sufficient resources and guidance to promote successful policy implementation and protect students from bullying.

Table 2.1

Fidelity of Implementation of Bullying Policy Components regarding Protected Social Classes

Item stem	Race		National origin		Gender		Socio-economic status		Sexual orientation		Gender identity		Physical appearance		Disability status		
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	I don't know
My school's policy prohibits bullying based on someone's:	78.0	2.4	74.2	6.3	75.6	4.9	72.6	7.8	70.6	9.9	66.4	14.1	72.5	8.0	73.7	6.8	19.5
I have received training about bullying regarding:	39.2	47.6	32.8	54.0	35.4	51.4	35.2	51.6	34.1	52.6	32.4	54.4	34.5	52.3	33.3	53.5	13.2
Students are informed that bullying is prohibited based on:	68.6	9.1	63.9	13.8	64.0	13.7	62.0	15.7	56.7	20.9	53.9	23.7	64.2	13.4	63.2	14.5	22.3

Note. All values are percentages.

Table 2.2

Bullying Policy Implementation Actions by School Personnel across Protected Social Classes

Item stem	Race	National origin	Gender	Socio-economic status	Sexual orientation	Gender identity	Physical appearance	Disability status
School personnel report incidents of bullying based on:	4.21 (0.87)	4.15 (0.93)	4.14 (0.92)	4.12 (0.95)	4.08 (1.02)	4.06 (1.05)	4.12 (0.96)	4.20 (0.89)
School personnel investigate reports or complaints of bullying based on:	4.33 (0.97)	4.29 (1.01)	4.26 (1.05)	4.24 (1.05)	4.19 (1.14)	4.17 (1.16)	4.25 (1.03)	4.31 (1.00)
Appropriate remedial action is given to students who bully others based on:	3.95 (1.05)	3.91 (1.09)	3.89 (1.10)	3.87 (1.10)	3.85 (1.17)	3.84 (1.17)	3.87 (1.11)	3.94 (1.10)

Note. Values are mean (standard deviation). Response options were coded as 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *most times*, and 5 = *always*.

Table 2.3

Pairwise Comparisons of Social Classes across Bullying Policy Implementation Components

Comparisons[a]	Included in local policy[b]	Employees were trained[b]	Students were informed[b]	Employees reported incidents[c]	Incidents were investigated[c]	Remedial action taken[c]
Race vs. National origin	*	*	*	*		*
Race vs. Gender	*	*	*	*	*	*
Race vs. Socioeconomic status	*	*	*	*	*	*
Race vs. Sexual orientation	*	*	*	*	*	*
Race vs. Gender identity	*	*	*	*	*	*
Race vs. Physical appearance	*	*	*	*	*	*
Race vs. Disability	*	*	*			
National origin vs. Gender						
National origin vs. Socioeconomic status						
National origin vs. Sexual orientation	*		*	*	*	*
National origin vs. Gender identity	*		*	*	*	*
National origin vs. Physical appearance						
National origin vs. Disability						
Gender vs. Socioeconomic status	*					
Gender vs. Sexual orientation	*		*	*	*	
Gender vs. Gender identity	*		*	*	*	
Gender vs. Physical appearance	*					
Gender vs. Disability						
Socioeconomic status vs. Sexual orientation			*			
Socioeconomic status vs. Gender identity	*		*			

Socioeconomic status vs. Physical appearance					
Sexual orientation vs. Gender identity	*	*			
Physical appearance vs. Sexual orientation		*			
Physical appearance vs. Gender identity	*	*		*	
Disability vs. Socioeconomic status				*	*
Disability vs. Sexual orientation	*	*	*	*	*
Disability vs. Gender identity	*	*	*	*	*
Disability vs. Physical Appearance			*		*

[a]The first social status in each pair had the higher mean value or proportion of *yes* vs. *no* responses when significant differences were detected.

[b]Based on post-hoc McNemar symmetry chi-square tests with Bonferroni adjustment.

[c]Based on Bonferroni post-hoc comparisons following one-way repeated measures ANOVAs.

* *p* < .05

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PAPER III

THE ROLE OF SCHOOL CONTEXT IN IMPLEMENTING A STATEWIDE ANTI-BULLYING POLICY AND PROTECTING STUDENTS

Bullying in schools is a pervasive and persistent threat to the well-being and school success of students. Bullying refers to unwanted aggressive behaviors enacted intentionally over time by an individual or group using some form of power to cause physical and/or psychological harm to another individual or group in a shared social setting, such as a school (Gladden, Vivolo-Kantor, Hamburger, & Lumpkin, 2014; Olweus, 2013). A meta-analysis of 21 U.S. studies showed that on average 18% of youth were involved in bullying perpetration, 21% of youth were involved in bullying victimization, and 8% of youth were involved in both perpetration and victimization (Cook, Williams, Guerra, & Kim, 2010). In addition, the Youth Risk Behavior Survey has shown a constant prevalence rate of 20% for bullying victimization since tracking began in 2009 (Eaton et al., 2010; Eaton et al., 2012; Kann et al., 2014).

Students who are victimized often suffer the most among those involved in the bullying dynamic. Victims of bullying often feel unsafe and unhappy in school, which can lead to school disengagement, absenteeism, and academic difficulties (Aresneault et al., 2006; Buhs, Ladd, & Herald, 2006; Glew, Fan, Katon, Rivara, & Kernic, 2005; Juvonen, Nishina, & Graham, 2000). Victimized students can also experience problems with concentration and attention regulation, which may contribute to problems in academic performance (Schwartz, McFadyen-Ketchum, Dodge, Pettit, & Bates, 1998). A meta-analysis of 33 studies found that being bullied was

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associated with lower grades, standardized test scores, and teacher ratings of academic achievement (Nakamoto & Schwartz, 2010).

Being bullied also contributes to mental health problems, including anxiety, depression, suicidal ideation and behavior, psychosomatic problems, and psychotic symptoms (Copeland, Wolke, Angold, & Costello, 2013; Dake, Price, & Telljohann, 2003; Gini & Pozzoli, 2009; Gini, Pozzoli, Lenzi, & Vieno, 2014; Hawker & Boulton, 2000; Kim & Leventhal, 2008; Klomek, Sourander, & Gould, 2010; Reijntjes, Kamphuis, Prinzie, & Telch, 2010; Rigby, 2003; Ttofi, Farrington, Lösel, & Loeber, 2011a). Researchers have demonstrated that psychological distress as a result of being bullied mediates the relationship between victimization and academic problems (Graham, Bellmore, & Mize, 2006; Juvonen et al., 2000; Nishina, Juvonen, & Witkow, 2005; Schwartz, Gorman, Nakamoto, & Toblin, 2005). Thus, bullying victimization is directly and indirectly related to poor educational outcomes.

Students who bully others also experience school problems. Teachers are more likely to report that bullies are academically disengaged from school (Graham et al., 2006), and many bullies do not see themselves as academically competent (Ma, Phelps, Lerner, & Lerner, 2009). Students who bully are more likely to skip school, perform poorly, and drop out (Jankauskiene, Kardelis, Sukys, & Kardeliene, 2008; Kokko, Tremblay, Lacourse, Vitaro, & Nagin, 2006; Ma et al., 2009; Nansel et al., 2001; Pereira, Mendonça, Neto, Valente, & Smith, 2004). In addition, bullying others in childhood predicts a number of serious behavioral problems (e.g., hyperactivity, disruptive behavior, assault, stealing, vandalism, and weapon-carrying) into adolescence and early adulthood (Farrington, Ttofi, & Lösel, 2011; Kumpulainen & Räsänen, 2000; Scholte, Engels, Overbeek, De Kemp, & Haselager, 2007; Ttofi, Farrington, & Losel, 2012; Ttofi, Farrington, Lösel, & Loeber, 2011b). Given the prevalence of bullying and the

deleterious outcomes associated for students who are directly involved in bullying, this study aimed to investigate the role of school contextual factors as barriers to or facilitators of two sets of actions intended to address bullying: the implementation of an anti-bullying policy and teacher protection of students from bullying.

Implementing Policy Interventions for Bullying

Currently, the United States does not have a federal law against school bullying. However, spurred by the shootings at Columbine High School in 1999 and the increasing awareness and concern about bullying, youth violence, and school safety since that time, 49 states have passed anti-bullying laws (Birkland & Lawrence, 2009; Bully Police USA, 2014). These laws apply to approximately 98,000 K-12 public schools, with the goal of protecting over 50 million students from involvement in bullying (Snyder & Dillow, 2013; Stuart-Cassel, Bell, & Springer, 2011).

The mere passage of a policy by legislators or a board of education does not mean that a policy will be immediately and efficiently put into operation precisely as intended. Indeed, implementation is a complex, dynamic, and ongoing process involving a vast assortment of people, resources, organizational structures, and actions. State education policies are implemented in school systems primarily by district officials (e.g., superintendents and central office administrators) and school personnel (e.g., principals, assistant principals, teachers, education support professionals, counselors, psychologists and social workers), who work directly with the ultimate beneficiaries of education policy: students. Like many public agencies, schools operate in an environment of local, state, and federal systems and the associated social, cultural, economic, and political factors, which can change over time (Fixsen, Naoom, Blase, & Friedman, 2005). These multiple systems and factors can facilitate or impede policy

implementation, which is an already challenging process nested within a complex, multilevel education system.

In order for a programmatic or policy intervention to accomplish its intended effects, it must be implemented with a high degree of fidelity (Carroll et al., 2007; Durlak & DuPre, 2008; Fraser, Richman, Galinsky, & Day, 2009). For policy interventions, fidelity refers to the extent to which a policy is implemented as intended based on the directives expressed in the policy document. Directives outlined in state anti-bullying laws vary somewhat but often require schools to formulate local bullying policies, train school personnel on the policy and bullying intervention, notify students and parents about the policy, establish procedures for reporting and investigating bullying incidents, establish appropriate consequences for bullies, and provide mental and behavioral health services for victims and bullies (Stuart-Cassel, Bell, & Springer, 2011).

Researchers have found considerable variability in the fidelity of implementation of policy interventions for bullying. For example, 51% to 98% of educators reported that their school systems had adopted a local anti-bullying policy in compliance with their state's policy (Bradshaw, Wassdorp, O'Brennan, & Gulemetova, 2011; Hedwall, 2006; Jordan, 2014; MacLeod, 2007; Robbins, 2011; Smith-Canty, 2010; Terry, 2010). In terms of training and notification regarding bullying policies, 46% to 94% of educators reported receiving training on the policy (Bradshaw et al., 2011; Hedwall, 2006; Holmgreen, 2014; Robbins, 2011; Smith-Canty, 2010; Terry, 2010), and 56% to 84% of educators reported that students were notified about the policy (Holmgreen, 2014; Jordan, 2014; LaRocco, Nestler-Rusack, & Freiberg, 2007; Robbins, 2011; Smith-Canty, 2010). Regarding school procedures, 60% to 94% of educators indicated that their school maintained procedures for reporting bullying (Holmgreen, 2014;

LaRocco et al., 2007; Robbins, 2011), 78% to 92% of educators indicated that their school had procedures for investigating reports or complaints about bullying (Holmgreen, 2014; LaRocco et al., 2007; Smith-Canty, 2010), and 52% to 80% of educators indicated that their school provided mental health assistance to students involved in bullying (Hedwall, 2006; Holmgreen, 2014; Smith-Canty, 2010). These findings show that implementation fidelity varies across study locations and policy components. A policy must be implemented with a high degree of fidelity in order to have an effect and reduce bullying in schools.

There are a number of possible reasons education policies are not implemented with a high level of fidelity: financial and human resources were insufficient for implementation, parents and community members opposed the policy, the policy was written using vague or confusing language, school personnel do not support or do not know how to implement the policy, and the work environment may be overly demanding and constraining for school personnel. Indeed, many educators are situated in schools with high-need students and limited resources where they are asked to respond to a host of student needs related to their physical, psychological, social, and educational development. In the current climate of high-stakes academic testing, any new mandate may feel overwhelming unless it is accompanied by budgetary and professional resources (Fowler, 2009). Thus, implementing a new policy on top of a multitude of existing responsibilities with insufficient resources may be quite burdensome for educators.

Few studies have investigated the factors that act as barriers to or facilitators of school bullying policy implementation. Barriers to implementation included incomplete understanding of the policy by school members, poor agreement among personnel about what constituted bullying, bombardment of media attention about the policy, inadequate faculty and staff training,

limited staff knowledge about bullying intervention strategies, lack of coordination among staff regarding protocols, lack of consistent follow-through by school personnel, lack of support from parents and school leaders, time constraints, and competing needs of students (Isom, 2014; LaRocco et al., 2007; Richman, 2010; Robbins, 2011; Schlenoff, 2014; Smith-Canty, 2010; Terry, 2010). Very few studies have examined facilitators or drivers of bullying policy implementation. Factors identified include documents and tools developed by the district to assist school personnel with interpreting and implementing the policy (e.g., a flowchart of steps to take when investigating a bullying incident), prioritization of the policy by school and district leadership, and teacher commitment to stop bullying (Isom, 2014; Richman, 2010).

Teachers Intervening in Student Bullying

Teachers are the key actors involved in bullying intervention and prevention efforts (Newman, Frey, & Jones, 2010). In a national study, 92% of teachers indicated that bullying was problematic to some degree in their schools, and 98% of teachers agreed that it was their responsibility to intervene in bullying incidents (Bradshaw, Wassdorp, O'Brennan, & Gulemetova, 2011). However, almost half (45%) of teachers had not received training on school bullying rules and procedures. Indeed, many educators have reported not feeling comfortable intervening or not knowing how to intervene in bullying (Bradshaw, Wassdorp, O'Brennan, & Gulemetova, 2013; Mishna, Pepler, & Wiener, 2006). Several barriers to educators addressing bullying have been identified, including lack of time, resources, and training (Bradshaw et al., 2013; Maunder & Tattersall, 2010; Mishna et al., 2006). In addition, teachers frequently felt both pressured to address student academic needs and exhausted from the demands associated with their many roles, which interfered with their capacity to effectively address bullying (Maunder & Tattersall, 2010; Mishna et al., 2006).

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Behaviors to protect students from bullying vary by individual and school characteristics. Compared to males, female educators were more likely to report responding to bullying (Bauman, Rigby, & Hoppa, 2008; Duy, 2013; Power-Elliott & Harris, 2011). Responsiveness may also differ by one's role in the school. Compared to teachers, school counselors were less likely to ignore a bullying situation (Bauman et al., 2008). And in terms of responses, teachers were more likely to discipline the bully and counselors were more likely to try and help the victim. No differences in responding to bullying were found by educators' age, education level, or years of experience (Bauman et al., 2008; Duy, 2013; Goryl, Neilsen-Hewett, & Sweller, 2013; Power-Elliott & Harris, 2011; Yoon, 2004). Results were mixed on the relationships between responding to bullying and teachers' empathy for victimized students as well as their self-efficacy in managing student behavior problems (Yoon, 2004; Yoon, Sulkowski, & Bauman, 2014).

Teacher reports of socio-emotional variables related to the school climate have been positively associated with teachers' propensity to intervene in bullying, including feeling connected with the school, staff, and students; the quality of educators' relationships with students and parents; teacher trust in students, parents, colleagues, and the principal; feeling that the school environment is respectful and pleasant; perceptions of professional behavior among teachers; collegial principal leadership; and collective efficacy (Anderton, 2012; Hyde, 2014; Maunder & Tattersall, 2010; O'Brennan et al., 2014; Smith & Birney, 2005; Smith & Hoy, 2004; Yoon et al., 2014). In addition, having resources available for bullying intervention in the school and receiving anti-bullying training were positively related to intervening in student bullying (Bauman et al., 2008; O'Brennan et al., 2014).

The relationship between teacher protection of students from bullying and the socioeconomic status of the school is unclear (Anderton, 2012; Hyde, 2014; Smith & Birney, 2005). The size of the student body (Hyde, 2014; Smith & Birney, 2005) and school type (e.g., elementary, middle, or high school) do not appear to impact teacher intervention in bullying (Bauman et al., 2008; Smith & Hoy, 2004). In sum, these findings illustrate that many individual and organizational factors can aid or impede educators' efforts to put bullying policies into practice and protect students from bullying; however, training, resources, intra- and inter-organizational coordination, competing needs and constraints, and the school climate may be particularly influential factors. Also, some factors do not appear to influence these processes, and the relationships between some explanatory factors and outcomes are still unclear.

Purpose of the Current Study

This study intended to fill gaps in the literature by examining the relationships between school contextual variables that had not been used in previous studies (e.g., school geographic area, student to teacher ratio, and percent of students below grade level) and the outcomes of interest: fidelity of implementation of a bullying policy and teacher protection of students. This study also attempted to help clarify disagreements in the literature where some studies found significant relationships between contextual factors and the outcomes and other studies found non-significant relations (e.g., school socioeconomic status and teacher protection of students). This study also improved upon the methods used in other studies in the literature, which often relied on descriptive statistics and bivariate analyses as well as cross-sectional designs, by using multivariate analyses, corrections for clustering, and data from two time points to examine predictive relationships between the independent variables and the outcomes. The current study used data collected from educators at the end of 2010 concerning the School Violence Prevention

Act of 2009 (SVPA), which is the anti-bullying law in North Carolina (NC), and school context data from the 2009-2010 school year.

The purpose of this study was to examine the relationships between school contextual factors (i.e., school type, school geographic area, school size, student to teacher ratio, proportion of economically disadvantaged students, prevalence of student behavior problems, proportion of students above grade level in math and reading, student attendance rate, proportion of teachers with advanced degrees, teachers' years of teaching experience, teacher turnover rate, and the per pupil expenditure) during the outset of the implementation of the SVPA and two outcome variables: fidelity of implementation of the law and protection of students from bullying. The capacity of educators to implement components of an anti-bullying policy and protect students from bullying may indeed hinge on the school context. For example some educators may be in schools where they are teaching and managing large groups of students who may present challenges in terms of missing school, struggling academically, and misbehaving. Such conditions may likely act as barriers to educators implementing a new policy and ensuring the protection of all students from aggressive behaviors. On the other hand, some educators may be in schools with smaller class sizes, higher levels of funding, fewer students from economically disadvantaged backgrounds, and fewer students with academic difficulties. Such conditions may likely facilitate educators' capacity for implementing new policies and intervening in student bullying.

Based on the review of the literature above, the following hypotheses were developed:

1. Student to teacher ratio, proportion of economically disadvantaged students, proportion of students below grade level on end of grade tests, prevalence of student suspensions, and

teacher turnover rate will be inversely related to teacher protection and implementation

fidelity;

2. Student attendance rate and per pupil expenditure will be positively associated with teacher

protection and implementation fidelity; and

3. School type, school geographic area, school size, the proportion of teachers with advanced

degrees, and the proportion of teachers with more or less years of experience will not be

significantly related to teacher protection and implementation fidelity scores.

Methods

Policy Design

The SVPA was signed into law on June 23, 2009. In the law, bullying was defined as

verbal, written, electronic, or physical actions that induced fear of harm or created a hostile

environment for a student. Such behaviors were prohibited as well as bullying behavior based on

actual or perceived race, color, ancestry, national origin, religion, gender, socioeconomic status,

academic status, sexual orientation, gender identity, physical appearance, and disability. The law

applied to behavior on school property, at school-sponsored functions, and on school buses.

According to the law, school personnel who witnessed or possessed information about bullying

were required to report incidents to the appropriate school officials. On the other hand, students

and school volunteers were encouraged but not required to report bullying incidents.

The law also required that school districts adopt their own local anti-bullying policies by

December 31, 2009 and train all school employees by March 1, 2010. Each local policy had to

include the provisions described above in terms of the definition of bullying, prohibition of

bullying behaviors, enumerated statuses protected, scope of the policy, and bullying reporting

requirements as well as other components:

1. Behavioral expectations for students and school personnel.

2. Procedures for reporting bullying incidents, including anonymous reporting.

3. Identification of a school employee designated to investigate reports of bullying.

4. Procedures for investigating reports of bullying incidents.

5. Prohibition of reprisal or retaliation against individuals who reported bullying incidents.

6. Consequences and appropriate remedial actions for students who committed acts of bullying.

7. Plans to publicize and disseminate the local policy.

8. Inclusion of the local policy in student and employee handbooks.

9. Inclusion of the local policy in employee training.

The quality of the content of anti-bullying policies shapes their capacity to effectively reduce bullying. Three evaluations have been completed on the content of the SVPA. First, the SVPA received a B+ score on a scale of A++ to F by a national advocacy organization concerning school bullying policy in the United States (Bully Police USA, 2009). These grades were based on the inclusion of 12 criteria (High, n.d.), 9 of which are recommended best practices for school bullying policy (Nickerson, Cornell, Smith, & Furlong, 2013). Second, the SVPA contains 13 out of 16 or 81% of key policy components identified in a national review of state anti-bullying policies by the U.S Department of Education (Stuart-Cassel, Bell, & Springer, 2011). These 16 policy components represent factors identified in the theoretical or empirical literature that promoted policy implementation and/or effectiveness. Third, a study found that the SVPA included 67% of protective factors identified in the literature as associated with reduced bullying behaviors, risk of bullying, or consequences from bullying (Weaver, Brown, Weddle, & Aalsma, 2013). The protective factor score for the SVPA was in the top 15% of state

policy scores. These three evaluations suggest that the content of the SVPA is good in that a majority of its components can potentially reduce or prevent school bullying.

Study Design and Procedures

This study involved a cross-sectional survey merged with administrative data on school contextual variables present the school year following the passage of the SVPA and prior to the survey. Because school-level educators are the primary implementers of education policy, we surveyed members of a statewide professional association of educators and school employees in NC. The survey was announced in an email message sent through the association's membership listserv. The email invitation contained a brief description of the survey, stating that it was focused on bullying, was optional and anonymous, and could be completed in 15 minutes. The email also contained a link to the welcome and informed consent page of the online survey. An online survey format was selected because of several advantages: participants can respond to a Web survey at times and places convenient for them, participants can often complete Web surveys quickly, and participants may be less affected by social desirability bias in their responses because they are not directly disclosing the information to another person (Evans & Mathur, 2005; Granello & Wheaton, 2004; Rhodes, Bowie, & Hergenrather, 2003).

In the survey, participants initially completed three demographic questions and were asked to identify the school and district in which they worked. Identifying their school allowed us to merge the survey data with school-level data. The remainder of the survey items assessed teacher protection of students and the implementation of the SVPA. No material incentives were used to solicit participation. The survey was available from mid November 2010 to early January 2011. It can take 3 to 5 years from the time a school-wide policy or program is adopted to the time it can be implemented with fidelity and have a measureable effect (Bradshaw,

Reinke, Brown, Bevans, & Leaf, 2008; Cooper, Fusarelli, & Randall, 2004). Evaluating fidelity may be more useful within the early stages of implementation to identify implementation problems and problems inherent in the policy design that may need to be addressed. Therefore, we decided to collect data on implementation a year following the date that school districts were required to enact local anti-bullying policies.

Sample

Of the approximately 5,000 educators who were invited to participate, 664 (13.3%) responded to the survey to some extent. However, 159 respondents were excluded because they did not complete the survey beyond the demographic items, worked in private or charter schools, worked in special education or vocational schools, or did not identify their school. These latter three criteria prevented merging the survey data with the school-level administrative data. Thus, a total of 505 participants were included for data analysis in this study, which was 10.1% of the educators invited to participate. Bivariate analyses comparing the 505 included and the 159 excluded respondents showed no significant differences in terms of the proportions of White, non-White, male, and female respondents.

The sample of 505 educators included 78% teachers, 11% education support professionals (ESPs), 4% school administrators, 3% school counselors, 2% school social workers, and 1% school nurses. The racial/ethnic breakdown of the sample was 77% White/Caucasian, 17% Black/African American, 2% Hispanic/Latino/Latina, 1% American Indian or Alaska Native, and 3% multiracial/multiethnic. The sample included 83% females and 17% males. These sample demographics are closely aligned with statewide representative demographic data of NC K-12 public school teachers. For example, 81% of NC teachers were White, 16% were Black, 1% were Hispanic, 1% were American Indian or Alaska Native, and 1%

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were Asian (U.S. Department of Education, 2009). And, 80% of teachers were female and 20% male.

Respondents were employed in 324 schools in 85 (74%) of the 115 school districts in NC. All of the participants worked in regular education K-12 public schools. The grade levels at the schools where participants worked varied with 40% in elementary schools, 2% in elementary-middle schools, 25% in middle schools, 3% in middle-high schools, and 29% in high schools. In terms of the geographic area of participants' schools, 62% were in small town or rural areas, 23% were in urban areas, and 15% were in suburban areas.

Dependent Variables

Fidelity of bullying policy implementation. Fidelity of implementation of the SVPA was measured using nine items designed by a group of individuals who were involved in advocating for the passage of the SVPA, which included one educator, one parent, one education researcher, and one social work researcher. The items were constructed based on the content of the SVPA and assessed implementation fidelity of nine policy components. Fidelity of implementation related to protected social classes (i.e., race, national origin, gender, socioeconomic status, sexual orientation, gender identity, physical appearance, and disability status) was emphasized for two reasons. First, this aspect of the law was highly controversial during the formulation of the policy (Comer, 2009), and thus, might not be executed as intended. Second, youth who are vulnerable or members of minority groups are often targeted for bullying and report high rates of victimization (Elamé, 2013; Peguero, 2012).

To assess implementation fidelity, participants were asked the following:

1. whether or not they had received training on the SVPA, with response options of *yes* and *no*;

2. how often they knew whom to report incidents of bullying to at their school, with response options of *never*, *rarely*, *sometimes*, *most times*, and *always*;

3. how often students at their school knew whom to report incidents of bullying to, with response options of *never*, *rarely*, *sometimes*, *most times*, and *always*;

4. which social statuses were protected from bullying in their school's local policy, and participants could select *I don't know* for the item or select *yes* or *no* beside each of eight social statuses;

5. if they had received training about bullying based on the eight social statuses, and participants could select *I don't know* for the item or select *yes* or *no* beside each of the eight social statuses;

6. if students in their schools had been informed that bullying was prohibited based on the eight social statuses, and participants could select *I don't know* for the item or select *yes* or *no* beside each of the eight social statuses;

7. how often employees at their school reported witnessed bullying incidents based on the eight social characteristics to the designated school official, with response options of *never*, *rarely*, *sometimes*, *most times*, and *always*;

8. how often school officials investigated reports of bullying based on the eight social status characteristics, with response options of *never*, *rarely*, *sometimes*, *most times*, and *always*; and

9. how often appropriate remedial action was given to students who perpetrated bullying based on the eight social status characteristics, with response options of *never*, *rarely*, *sometimes*, *most times*, and *always*.

Fidelity scores are often expressed as percentages where 0% could indicate that an intervention was not at all implemented as intended and 100% could indicate that an intervention was completely implemented as intended (Linnan & Steckler, 2002). Using this logic, participants' responses were coded or calculated as percentages for the nine implementation variables. For item 1, responses of *yes* and *no* or *I don't know* were coded as 100% and 0%, respectively. For items 2 and 3, responses of *never*, *rarely*, *sometimes*, *most times*, and *always* were coded as 0%, 25%, 50%, 75%, and 100%, respectively. For items 4 through 9, a percentage was calculated based on the number of *yes* responses selected out of eight. Thus, no *yes* responses received a 0% score, one *yes* response received a 12.5% score, two *yes* responses received a 25% score, and so on. Finally, an overall implementation fidelity score was calculated by averaging the nine percentages.

Teacher protection of students from bullying. The protection of students from bullying was measured using a subscale from the Bully Index (Smith & Hoy, 2004), which is an educator-report measure assessing (1) perceptions of bullying among students at school and (2) teacher protection of students. Only the 4-item subscale pertaining to teacher protection was used for this study. Participants were asked to think about the school in which they worked and rate their agreement with four statements (e.g., "Teachers in my school reach out to help students who are harassed by other students") using a five-point Likert-type scale ranging from 1 (*disagree*) to 5 (*agree*). One item was reverse coded. A teacher protection score was calculated by averaging responses from the four items. Higher scores indicate higher levels of teacher engagement in protection of students in the school from bullying (Smith & Hoy, 2004). In other studies, this subscale has demonstrated acceptable to good internal consistency reliability (α = .73 to .96) as well as evidence of convergent and divergent validity (Anderton, 2012; Hyde,

2014; Smith & Birney, 2005; Smith & Hoy, 2004). The internal consistency reliability of this subscale in the present study was $\alpha = .77$, which was acceptable for research purposes (DeVellis, 2012).

Independent Variables

Individual-level variables. Three individual-level demographic variables of educators were measured:

1. type of educator, which included the following options: teacher, ESP, student service professional (i.e., school counselor, social worker, and nurse), and school administrator, which was the reference group;

2. educator race/ethnicity was recoded into a binary variable as person of color and White, which was the reference group; and

3. educator sex/gender included female and male, which was the reference group.

School-level variables. School-level data collected through the NC Department of Public Instruction for the 2009-2010 school year included the following variables:

1. school type (i.e., elementary, elementary-middle, middle, middle-high, and high school), with elementary as the reference group;

2. school geographic area (i.e., small town/rural, urban, or suburban), which was based on the coding scheme developed by the National Center for Education Statistics and the U.S. Census Bureau (U.S. Department of Education, n.d.), with urban as the reference group;

3. size of the student body in terms of average daily membership;

4. student to teacher ratio, which was attained by dividing the average daily membership by the total number of classroom teachers in the school;

5. percent of economically disadvantaged students (i.e., those eligible for free or reduced-price lunch);

6. number of short-term suspensions per 100 students;

7. percent of students scoring below grade level on the end of grade math test;

8. percent of students below grade level on the end of grade reading test;

9. student attendance rate;

10. percent of teachers with advanced degrees (i.e., master's, educational specialist, or doctoral degrees);

11. percent of teachers with less than 4 years of teaching experience;

12. percent of teachers with 4 to 10 years of teaching experience;

13. percent of teachers with more than 10 years of teaching experience;

14. teacher turnover rate (i.e., the percent of teachers in the school who left their positions in the past year); and

15. the total per pupil expenditure in dollars (i.e., the sum of local, state, and federal expenditures per student).

Data Analysis

Prior to analysis, a number of diagnostics were performed using Stata (version 13; StataCorp, 2013) to examine the linearity between the independent and dependent variables, the distributions of the residuals, the distributions of the independent and dependent variables, influential outliers, heterskedasticity, multicollinearity, missing values, and clustering.

To examine the linearity or relationships between independent and dependent variables, I generated scatter plots of the standardized residuals against each of the non-categorical independent variables. The plots did not indicate any clear departures from linearity (Chen,

Ender, Mitchell, & Wells, 2003). Next, to examine the distribution of residuals, histograms, Q-Q plots, P-P plots, kernel density plots, and scatter plots were generated. These charts showed that the residuals were approximately normally distributed for both dependent variables (Chen, Ender, Mitchell, & Wells, 2003).

Based on examination of skewness and kurtosis values, histograms, Q-Q plots, and box plots, both of the dependent variables and the all of the non-categorical independent variables were approximately normally distributed except for the number of suspensions per 100 students. This variable had a positively skewed distribution, and thus, a natural log transformation was used to achieve a normal distribution.

Cook's (1977) distance values were calculated to identify any outliers that could substantially influence the results. No cases of influential outliers (Cook's distance values > 1) were found. To examine potential heterskedasticity problems, Cameron and Trivedi's (1990) decomposition of IM-test was conducted and showed no significant problems. I also examined variance inflation factor (VIF) scores to check for multicollinearity, and two multicollinearity problems (VIF scores > 10) were found for the variables representing the proportion of students below grade level in math and reading. These two variables were highly correlated ($r = .91$, $p < .05$), and thus, were averaged together to create one new variable.

In this study, 8.1% of values were missing. Full information maximum likelihood (FIML) was used to handle missing data. This procedure allows for all cases to be included in analyses, even if they are missing values on some variables. FIML has been shown to perform better than listwise deletion, pairwise deletion, mean imputation, and multiple imputation in terms of generating unbiased estimates (Allison, 2012; Dong & Peng, 2013; Enders, 2001; Graham, 2009; Widaman, 2006).

A final methodological issue that needed to be addressed in this study was the multilevel nature of the data – educators clustered within schools. Educators at the same school may share common characteristics on an outcome variable compared to those in other schools. Clustering violates the independence assumption for regression modeling, and violating this assumption and not accounting for clustering can lead to biased estimated standard errors and spurious results (Guo, 2005). Using the intraclass correlation coefficient (ICC) developed by Raudenbush and Bryk (1999), I examined the clustering effects for the two outcome variables. The ICC is the proportion of the total explained variation in an outcome that is attributable to differences between contexts, in this case, schools. The ICC can be calculated using the following equation:

$$ICC = \frac{\sigma_u^2}{\sigma_u^2 + \sigma_e^2}$$

Where σ_u^2 is the between-group variance, and σ_e^2 is the within-group variance. Results showed that the clustering effects were low: ICC = .059 for implementation fidelity and ICC = .057 for teacher protection. These results indicate that less than 6% of the variation in the outcome variables is between schools. Therefore, problematic clustering effects were negligible. Generally, multilevel modeling is not necessary when the ICC is less than .10 (Heinrich & Lynn, 2001; Kreft, 1996; Lee, 2000; What Works Clearinghouse, 2008) because the results would most likely not be different than results from regression modeling. Nonetheless, the generalized Huber-White sandwich estimator (Rogers, 1993) was used to account for clustering in the models. Stata (version 13) was used to analyze the data because it allows for correcting for clustering effects via the Huber-White sandwich estimator and FIML, which is referred to as maximum likelihood with missing values (MLMV) in Stata.

Results

Descriptive statistics showed that the extent to which the SVPA was implemented varied across schools and policy components (Table 1). A substantial proportion of this variability may be explained by school contextual factors. In order to examine the relationships between these factors and the outcome variables, I used multivariate robust regression modeling. Table 2 shows the means, standard deviations, and intercorrelations for the non-categorical study variables. School size was inversely correlated with teacher protection, and the prevalence of student suspensions was inversely correlated with both teacher protection and implementation fidelity. Fidelity of policy implementation was positively correlated with teacher protection of students.

Next, two robust regression models were run predicting fidelity of policy implementation and teacher protection of students using the same set of individual demographic and school contextual variables for both models. Educator type, race/ethnicity, sex/gender, school type, and geographic area were dummy coded so that these categorical variables could be used as predictors in the models. Table 3 shows the results of the regression analyses, including unstandardized regression coefficients, standard errors, 95% confidence intervals, and R^2 values for the two models. The independent variables accounted for significant yet fairly small amounts of the variance in implementation fidelity ($R^2 = .104$) and teacher protection ($R^2 = .130$).

In both models, school administrators rated policy implementation fidelity and teacher protection scores significantly higher than teachers, ESPs, and student service professionals. In addition, high school educators reported significantly higher implementation fidelity scores than those in elementary schools. Also, in this model, the number of students and prevalence of suspensions were significantly inversely related to implementation fidelity. Regarding the second model, elementary school educators had the highest teacher protection scores, and this

difference was significantly higher when elementary school educators were compared with those in elementary-middle schools, which had the lowest teacher protection scores.

Discussion

Findings from this study indicate that the SVPA has not been implemented with a high level of fidelity in NC schools. In fact, the results show considerable variability in the levels of implementation. For almost every policy component, scores ranged from 0% to 100%, which suggests that in some schools, educators are not implementing the SVPA at all, and in other schools, educators are implementing the SVPA as intended. A small part of this variability in implementation is due to school contextual factors that were present during the first school year following the passage of the SVPA into law.

Two factors that acted as barriers to implementation included school size and student suspensions. Thus, as the number of students in a school increased, the fidelity of implementation of the SVPA decreased. Similarly, as the number of suspensions per 100 students increased, the fidelity of implementation of the SVPA decreased. One explanation for this finding rests on the assumption that suspensions are a consequence of a range of serious behavior problems among students. Historically, suspensions most often resulted from physical fighting, insubordination, class disruption, skipping class, drug use and selling, vandalism, and weapon possession (Cameron, 2006). Thus, educators in schools with high suspension rates may be facing a range of frequent student behavior problems and have less time to faithfully implement the components of a new policy. Another possible explanation for the finding is that suspensions are overused as a punitive response to serious and moderate student behavior problems, which contributes to an exclusionary school culture. In an exclusionary culture, certain students are excluded from fully participating in and benefiting from the education

system (Brady, 2005). Research shows that Black and Latino/Latina students are more likely to be suspended and excluded from schools than White students for the same or similar behavior problems (Skiba et al., 2011). Thus, in schools where suspensions are frequently used for even minor behavioral infractions, which result in the exclusion of certain minority student groups, educators may be less inclined to implement elements of an anti-bullying policy that address discriminatory bullying because there is a culture of exclusion at the school.

Besides the current study, only one other study investigated the relationship between implementation of a bullying policy and school size. In this study of high school teachers, respondents from larger schools were more likely to report having a bullying policy at their school but were less likely to report understanding the policy, receiving training on the policy, being periodically reminded about the policy, and having school-wide systems in place to help victims and work with bullies (Hedwall, 2006). Being in a large school may hinder educators' capacity to consistently implement new bullying policy practices because larger organizational systems have more employees, which may involve challenges to communication, collective decision-making, and coordination of actions. Having a large number of school employees may also contribute to a diffusion of responsibility where educators may not take action in terms of following bullying procedures (e.g., reporting a bullying incident witnessed in the cafeteria to an administrator) because many other educators are present in the school and it is assumed that another adult will take action.

Regarding teacher protection, scores differed by school type. Teacher protection scores were higher among elementary school educators compared to those in higher school grade levels; however, this difference was only statistically significant between elementary and elementary-middle schools. Compared to elementary schools, higher grade level schools generally have

more students, larger student to teacher ratios, and students spend less time with teachers (Snyder & Dillow, 2013). In addition, after the elementary grades, the academic culture of school becomes more evaluative and competitive (Jerome, Hamre, & Pianta, 2009). These systemic differences may influence the relationships and interactions between teachers and students as they progress out of the elementary grade levels. Studies show that relationships between teachers and students decline through elementary school and as students transition into middle school in terms of closeness and relationship quality (Jerome, Hamre, & Pianta, 2009; O'Connor, 2010; O'Connor & McCartney, 2007; Pianta & Stuhlman, 2004). Thus, teachers may become less nurturing and protective of students as they mature and transition out of the elementary grade levels.

Results of the present study also showed higher levels of implementation fidelity in high schools as opposed to elementary schools. Higher levels of implementation fidelity in high schools may have been due to the focus on discriminatory bullying or bias-based bullying in the measurement of fidelity. Six of the nine items assessing implementation of the SVPA focused on discriminatory bullying (e.g., informing students that bullying based on race, national origin, gender, socioeconomic status, sexual orientation, gender identity, physical appearance, and disability status was prohibited). A nationally representative study showed that prevalence rates for bias-based harassment were significantly higher among high school age students than elementary school age students (Finkelhor, Turner, Ormrod, & Hamby, 2009). Physical bullying is most prominent among elementary school age children and biased-based attacks are quite rare (Finkelhor et al., 2009), which may be due to social-cognitive developmental differences. High school educators may have reported higher levels of engagement in implementing the SVPA

because most of the items focused on discriminatory bullying, which is more prevalent in high schools.

We also found that school administrator scores on implementation fidelity and teacher protection were significantly higher than those among teachers, ESPs, and student service professionals. Two other studies of bullying policy implementation also found reporting differences between respondent groups. Compared to teachers and school counselors, school administrators reported higher levels of bullying policy implementation in terms of having a bullying policy, communicating the policy to members of the school community, reporting bullying incidents to appropriate officials, and disciplining perpetrators of bullying (Barnes, 2010; Jordan, 2014). In addition, compared to teachers and counselors, administrators were more likely to report that the school was effective at deterring and reducing bullying behavior (Barnes, 2010; Jordan, 2014). Findings from these studies as well as the present study suggest that school administrators' responses regarding actions to address bullying in their schools may be influenced by response bias. Administrators are the primary leaders of their schools and part of their identity as well as their job performance are likely tied to the successful operation of their schools. Thus, they may be influenced by a social or political desirability response bias in which it is advantageous to deny the presence of undesirable characteristics in their schools (e.g., failing to implement a new law) and to affirm the presence of socially desirable characteristics (e.g., teachers protecting students from bullying).

Limitations

This study has several limitations. First, this study did not use probability sampling, and thus, the sample may not be representative of educators across NC; however, the sample demographics parallel those that are representative of teachers in the state. Second, numerous

respondents were excluded from the analyses because they did not identify the school in which they worked, which prevented merging their data with school-level data. This resulted in a drop in sample size. Third, participants' responses may have been influenced by social desirability response bias because educators were asked to report on legally mandated actions related to the SVPA and actions by teachers in theirs schools to protect students from bullying. Fourth, relevant explanatory context variables, such as the socio-emotional climate of a school, were not collected in this study, which could have provided richer assessments of school settings. Fifth, implementation was assessed at only one point in time yet it is an ongoing process and additional assessments might have shown improvements in fidelity. A final limitation related to the limited number of prior research studies on this topic area, and thus, some of the hypotheses were exploratory because prior studies had not used variables that were included in this study.

Future Research

In the future, researchers should collect data from multiple respondent groups (e.g., administrators, teachers, and school mental health professionals) regarding bullying policy implementation and teacher protection of students to triangulate findings, and caution should be taken in relying exclusively on administrator responses. Future studies should also examine individual, cultural, and structural factors that may act as barriers to or facilitators of bullying intervention in terms of policy-related procedures and protective teacher behaviors. Individual factors could include educators' views of bullying as problematic or normative, support for anti-bullying policies and programs, and level of training and competency to address bullying. Factors related to the school culture, such as shared beliefs about the importance of tolerance and respect as well as systems that promote prosocial behavior, may also influence anti-bullying efforts. Structural factors could include levels of funding marked specifically for bullying

initiatives and the presence of personnel in schools and district offices who are specifically responsible for overseeing or coordinating anti-bullying policies and programs. In addition to these variables, standard school characteristics should still be collected and included in analytic models because they do account for some of the variance in the outcomes and such variables are uniformly collected from public schools across the United States and are publicly available. These contextual variables may moderate the relationships between individual, cultural, and structural factors and the outcomes. Additional research on the actions of educators as they continue to put bullying policies into practice in schools across the country and protect students from engagement in and the consequences from bullying is imperative to reduce the deleterious phenomenon of bullying.

Table 3.1

Descriptive Statistics on the Fidelity of Implementation of the School Violence Prevention Act

Policy Component	Mean	SD	Range
Training school personnel on the law	39.2	48.9	0 - 100
Educator knowledge of bullying reporting procedures	91.6	17.7	0 - 100
Student knowledge of bullying reporting procedures	78.4	21.1	25 - 100
Inclusion of protected social statuses in the local bullying policy	73.1	40.8	0 - 100
Training school personnel about protected social statuses	35.6	44.4	0 - 100
Student knowledge of social statuses protected from bullying	63.1	44.2	0 - 100
School personnel reporting bullying incidents based on social statuses	78.6	22.5	0 - 100
Investigating reports of bullying based on social statuses	82.0	24.1	0 - 100
Taking appropriate remedial action with bullying perpetrators based on social statuses	73.0	27.2	0 - 100
Overall policy implementation fidelity composite score	64.9	27.0	0 - 100

Note. All values are percentages.

Table 3.2

Means, Standard Deviations, and Intercorrelations for Continuous Variables

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. School size or number of students	722.06	448.18	--												
2. Student to teacher ratio	13.89	2.67	.60*	--											
3. Percent of economically disadvantaged students	52.96	19.63	-.41*	-.42*	--										
4. Number of suspensions per 100 students	1.08	0.56	-.17*	-.18*	.32*	--									
5. Percent of students below grade level	27.56	13.79	-.32*	-.55*	.71*	.59*	--								
6. Attendance rate	94.41	2.90	.34	.46*	-.36*	-.57*	-.67*	--							
7. Percent of teachers with advanced degrees	27.16	9.58	.12*	.11*	-.23*	-.24*	-.22*	.12*	--						
8. Percent of teachers with 0 to 3 years experience	20.10	9.58	-.14*	-.27*	.35*	.27*	.43*	-.27*	-.37*	--					
9. Percent of teachers with 4 to 10 years experience	29.48	9.36	.13*	.23*	-.16*	-.24*	-.11*	.28*	.09*	-.23*	--				
10. Percent of teachers with 11 or more years experience	50.57	11.76	.01	.04	-.16*	-.03	-.27*	.00	.24*	-.63*	-.60*	--			
11. Teacher turnover rate	11.78	6.45	-.09	-.16*	.36*	.40*	.46*	-.37*	-.30*	.45*	-.14*	-.27*	--		
12. Per pupil expenditure in dollars	8,802.85	1,013.07	-.31*	-.28*	.23*	-.02	.06	.03	-.01	.04	-.22*	.14*	.09	--	
13. Policy implementation fidelity score	64.89	26.99	-.12	-.00	.03	-.10*	-.06	.01	-.04	.01	-.08	.06	.04	.07	--
14. Teacher protection of students score	4.24	0.78	-.13*	-.02	-.03	-.23*	-.08	.08	-.00	.02	.05	-.05	-.02	-.01	.51*

* $p < .05$

Table 3.3

Robust Regression Analyses Predicting Fidelity of Bullying Policy Implementation and Teacher Protection of Students (N = 505)

Independent Variable	Policy Implementation Fidelity Model			Teacher Protection Model		
	B	SE	95% CI	B	SE	95% CI
Individual Demographics						
Educator type (school administrator)						
Teacher	-22.40*	4.54	[-31.30, -13.50]	-0.46*	0.12	[-0.71, -0.22]
Education support professional	-24.74*	5.35	[-35.22, -14.26]	-0.61*	0.17	[-0.94, -0.28]
Student service professional	-20.77*	6.53	[-33.56, -7.97]	-0.73*	0.21	[-1.14, -0.32]
Educator race/ethnicity (person of color = 1)	-1.48	3.18	[-7.71, 4.76	0.12	0.11	[-0.10, 0.33]
Educator gender (female = 1)	3.79	2.97	[-2.03, 9.60]	0.09	0.09	[-0.27, 0.10]
School-Level Characteristics						
School type (elementary)						
Elementary-middle	-18.14	9.36	[-36.48, 0.20]	-0.49*	0.21	[-0.90, -0.09]
Middle	4.31	4.38	[-4.28, 12.89]	-0.16	0.11	[-0.38, 0.06]
Middle-high	3.82	7.47	[-18.45, 10.81]	-0.29	0.18	[-0.64, 0.06]
High	10.55*	4.70	[1.33, 19.76]	-0.21	0.14	[-0.49, 0.07]
School geographic area (urban)						
Suburban	3.73	3.98	[-4.08, 11.54]	0.05	0.10	[-0.15, 0.25]
Rural	-3.41	3.33	[-9.93, 3.11]	-0.06	0.09	[-0.24, 0.13]
School size or number of students	-0.02*	0.00	[-0.03, -0.01]	-0.00	0.00	[-0.00, 0.00]
Student to teacher ratio	1.84	0.81	[0.26, 3.42]	0.01	0.02	[-0.03, 0.05]
Percent of economically disadvantaged students	0.09	0.09	[-0.09, 0.27]	-0.00	0.00	[-0.01, 0.00]
Number of suspensions per 100 students	-9.07*	3.93	[-16.77, -1.36]	-0.18	0.11	[-0.41, 0.04]
Percent of students below grade level	-0.04	0.19	[-0.40, 0.33]	-0.01	0.01	[-0.02, 0.00]
Attendance rate	-0.86	0.59	[-2.03, 0.30]	-0.03	0.02	[-0.06, 0.01]
Percent of teachers with advanced degrees	-0.13	0.14	[-0.39, 0.14]	-0.00	0.00	[-0.01, 0.01]
Percent of teachers 0 to 3 years experience	0.74	2.14	[-3.46, 4.94]	0.02	0.07	[-0.11, 0.15]
Percent of teachers 4 to 10 years experience	0.75	2.14	[-3.46, 4.96]	0.02	0.06	[-0.11, 0.14]
Percent of teachers with 11 or more years experience	0.91	2.15	[-3.28, 5.11]	0.02	0.06	[-0.11, 0.14]
Teacher turnover rate	0.17	0.25	[-0.33, 0.66]	0.01	0.01	[-0.01, 0.02]
Per pupil expenditure in dollars	0.00	0.00	[-0.00, 0.00]	-0.00	0.00	[-0.00, 0.00]
R^2		.104			.130	

Note. School administrator is the reference group for educator type. Race/ethnicity was coded 0 = White, 1 = person of color. Gender was coded 0 = male, 1 = female. Elementary is the reference group for school type coded as 0. Urban is the reference group for geographic area coded as 0.

* $p < .05$

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CONCLUSIONS

Based on this dissertation, several conclusions and recommendations can be derived for future research, theoretical development, and policy and practice. Relatively little research on school bullying policy has been conducted in light of the widespread adoption of policies within the United States. The first state anti-bullying law was passed in 1999 in Georgia, and currently, every state except for Montana has a law that addresses bullying (Bully Police USA, 2014). These laws generally apply to every K-12 public school within a state. However, only 21 studies were identified in the systematic review that examined the effectiveness of bullying policies. In addition, only a few dozen studies were found in the literature that examined the content and implementation of bullying policies, and research on policy creation or formulation is virtually nonexistent. Thus, the entire empirical literature on school bullying policy may comprise less than 100 studies.

There appear to be three main branches of research on school bullying policy: content, implementation, and effectiveness. Content studies may just describe the content of existing policies, as exemplified in the U.S. Department of Education report on state anti-bullying laws (Stuart-Cassel, Bell, & Springer, 2011). However, researchers may also examine the content of local policies to ascertain the extent to which they include components mandated by the state law (e.g., LaRocco, Nestler-Rusack, & Freiberg, 2007). In addition, researchers can examine the content of state policies to determine the extent to which they include certain criteria with empirical support for reducing bullying (e.g., Weaver, Brown, Weddle, & Aalsma, 2013). Studies on the implementation of bullying policies can include descriptive accounts of the

implementation process and stakeholders' experiences executing a new policy (e.g., Richman, 2010), investigations of the extent to which a policy was implemented as intended (e.g., Schlenoff, 2014), and analyses of factors that act as barriers to or drivers of implementation (e.g., Robbins, 2011). And finally, efficacy or effectiveness studies determine whether or not policy interventions influenced targeted outcomes, such as the frequency of bullying among students (e.g., Ordonez, 2006).

Unfortunately, research in these three areas often exists in isolation from one another. In the future, scholars should pursue lines of inquiry which integrate these three branches. Outcomes in one area often depend on variables that exist in another domain. For example, a policy may not have the capacity to effectively reduce bullying if the content is poor. And, even a policy that is well-written and contains evidence-based components must be implemented successfully in order to have an effect. However, many barriers to implementation exist. Thus, high quality policy content is a necessary but insufficient condition for effectiveness, and implementation may mediate the relationship between the initial adoption of a policy and achieving targeted outcomes.

Regarding factors that influence the implementation process, findings from this dissertation suggest that some school contextual variables influence implementation but only a small amount of variance in implementation fidelity was explained by these contextual factors. A variety of individual, organizational, community, and structural factors likely influence the implementation process. Twenty three factors were identified in a review of the literature on variables affecting the implementation of health-related intervention programs for children and adolescents, which included bullying interventions (Durlak & DuPre, 2008). Scholars should

draw upon this framework in the design of future studies examining factors affecting bullying policy implementation.

In addition, future studies examining policy implementation fidelity and effectiveness should use more rigorous designs. Given that policy implementation is a long-term and ongoing process, future studies should use longitudinal designs to better capture how implementation unfolds over time. And, studies evaluating policy effectiveness should also use longitudinal designs as well as intervention vs. control or comparison group designs.

This dissertation examined bullying in general as well as discriminatory bullying. A focus on discriminatory bullying has been a more recent emergence in the overall bullying literature in the past decade. Researchers have documented disparities in bullying where members of certain social or cultural minority groups report high rates of bullying victimization (Elamé, 2013; Peguero, 2012). Bullying of youth who are LGBTQ has perhaps received the most attention among forms of discriminatory bullying. Scholars have also begun to consider the role of prejudice in explanatory models of bullying (e.g., Elamé, 2013; Minton, 2014; Poteat & DiGiovanni, 2010). This area of the literature is small but growing, and additional research on the etiology of and interventions for discriminatory bullying is needed.

Findings from this dissertation suggest that certain minority groups face injustice not only in being disproportionately targeted for bullying victimization, but also in the activation of policy systems drafted to protect them. Comparative analyses among the eight protected social classes enumerated in the SVPA showed that local anti-bullying policies more often included race as a protected class and sexual orientation and gender identity were least likely to be included. Significantly more educators had been trained on bullying based on race than any other social class. And, students were more often informed that bullying based on race was prohibited and

were least often informed about prohibitions regarding sexual orientation and gender identity. Reporting, investigating, and remediating bullying behavior was highest for bullying based on race, followed by bullying based on disability, and was lowest for bullying based on sexual orientation and gender identity. This was the first study to document inconsistencies in the implementation of school bullying policy regarding protected social classes.

These inconsistencies are particularly troubling, given the literature documenting high rates of bullying of LGBTQ youth as well as the systematic review findings which show that anti-bullying policies that enumerate protections based on sexual orientation and gender identity may lead to school environments characterized by lower levels of anti-LGBTQ harassment and more frequent and effective intervention by educators regarding this harassment. LGBTQ youth are vulnerable to attacks because of their identity in a variety of social settings, including neighborhoods, workplaces, homes, and schools. Policies that enumerate protections based on sexual orientation and gender identity must not only be implemented on paper by passing a law, but also be implemented in terms of integrating new procedures and practices into the regular functioning of schools and encouraging requisite actions among school personnel so that preventive and intervening behaviors become routine. Additional resources may be needed during the implementation process to ensure that educators possess the knowledge, attitudes, and skills needed to protect all students from bullying.

Findings from this dissertation also showed inconsistent policy implementation across NC schools and variability in implementation across policy components. For example, educators in some schools reported that the SVPA had not been implemented at all whereas educators in other schools reported very high levels of implementation fidelity. Thus, students in certain schools may be better protected from bullying than those in other schools. Also, fidelity scores

were higher for some components than others. For example, policy components related to educators knowing bullying reporting procedures and investigating incidents of bullying had higher fidelity scores, and components related to educators receiving training on the policy and notifying students about the policy had lower fidelity scores. These findings are similar to those of other studies examining bullying policy implementation (Bradshaw et al., 2011; Hedwall, 2006; Holmgreen, 2014; Jordan, 2014; LaRocco, Nestler-Rusack, & Freiberg, 2007; Robbins, 2011; Smith-Canty, 2010; Terry, 2010). Thus, some components may need to be better addressed during the policy creation stage and more targeted resources may need to be employed to maximize implementation fidelity for all policy components.

Finally, it is still uncertain if policies are effective at reducing bullying among students and prompting educators to interrupt bullying. The extant literature shows mixed results with some studies finding significant relationships between bullying policies and targeted outcomes related to student bullying or teacher intervention and others finding no significant relations. In addition, the limitations inherent in the methods of studies used raises questions about the conclusions that can be drawn from the findings. Future research on policy effectiveness should use the most rigorous and feasible methods available. The creation of new bullying policies and the revision of existing policies will likely continue to increase in the future, and these policies should be based on strong evidence. Policies may indeed be a necessary part of a larger system of school-based intervention strategies for bullying; however, future research is needed illuminate this potential role in effectively reducing bullying in schools.

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