

2017

Discipline Patterns in a Public-School District with a History of Disproportionate Suspensions

Barbara M. Slingerland
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Walden University

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Barbara Slingerland

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Abstract

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Suspensions

by

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MA, State University of NY at Geneseo, 1985

BA, State University of NY at Geneseo, 1984

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education

Walden University

October 2017

Abstract

Nationwide concerns include disproportionate discipline referrals and suspensions of certain student groups and the associated negative student outcomes. A school district was cited by the state's department of education for suspending Black students with disabilities (SWD) at more than three times the rate of all other student groups; yet, the complex nature of the disciplinary disproportionality in this district was unknown. The purpose of this study was to investigate how student-related characteristics including race/ethnicity, gender, age, grade level, disability status, and school location, may predict number of discipline referrals, types of discipline referrals, and types of suspensions issued to students. Guided by the theory of behaviorism, this nonexperimental, ex post facto study examined archival discipline data for the 5523 students who received at least one office referral during the 2015-2016 school year. Chi-square analyses showed SWD had higher numbers of referrals, received referrals for subjective offenses, and were more likely to receive out-of-school suspension than no suspension or in-school suspension compared to nondisabled students. Regression analyses indicated students who were Black, male, identified as SWD, or in secondary school were at significantly greater risk of office referral and exclusionary discipline than other student groups. By understanding the patterns of discipline outcomes associated with student-related characteristics, school administrators within the local district are now able to select and implement evidence-based practices that may reduce exclusionary discipline, allowing all students to participate equally in school. Over time, these practices may lead to positive student outcomes including higher school engagement and increased graduation rates.

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Dedication

This study is dedicated to all students being educated in public schools in the United States who belong to marginalized populations. Great change has occurred in the past 100 years related to an understanding of, and deep appreciation for diversity, but there is a long way to go when it comes to discipline practices in schools. All educators and administrators need to examine how they use the diversity of their students and their staff to find ways to teach students using the strengths that diversity provides.

“Strength lies in differences, not in similarities” Steven R. Covey

Acknowledgments

I am so very thankful for the support that my husband Mike and my children Eric, Matt and Sara have provided during my doctoral journey. There were many times that I realized how much you have sacrificed so that I could achieve my dream. I love and appreciate you all. I also want to thank my parents who instilled in me a love for life-long learning at a very early age. Thank you, dad, for keeping me engaged in discussions related to disproportionality, and the learning process over the past three years. Thank you also for reviewing my manuscripts and giving feedback

I'd like to thank my good friend Sharon for joining me on this journey. You have worked to encourage me and keep me motivated throughout this time of learning. Last, but not least, I would like to thank the world's best committee chair, Dr. Andrea M. Wilson. You have provided exactly the amount of support and expertise needed to keep me moving forward, and allowing me to move ahead at a pace that is both challenging and comfortable.

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Chapter 1: Introduction to the Study

Introduction

Beginning in the 2000-2001 school year, and biennially thereafter, the U.S. Department of Education (USDOE, 2016a) and the Office of Civil Rights (USDOE, 2016b) required that all public-school districts track rates of disciplinary suspensions, dropouts, and graduation, all disaggregated by race/ethnicity, sex, and disability (USDOE, 2016a). This action was taken due to research, which indicated that certain subgroups within race/ethnicity, sex, and disability were subject to unequal treatment given their level of representation in the general population. (The representation of any group of people at a rate higher than in the general population has been defined as disproportionate representation, or *disproportionality* [Blumstein, 1982].) In D.J. Losen (Ed.), *Closing the School Discipline Gap: Equitable Remedies for Excessive Exclusion* (pp. 1-43). New York, NY: Teachers College Press. These data on representation were used by OCR to monitor and enforce equal educational opportunity laws .

One example of disproportionality has been identified by multiple studies of public education in the United States as pervasive: Black students with disabilities are involved in behavioral office referrals, in-school suspensions, and out-of-school suspensions at a rate that is significantly higher than White students and students without disabilities (Losen, Ee, Hodson, & Martinez, 2015; Skiba, 2002; USDOE, 2016b). Nationally during the 2013-2014 school year, the suspension rate for Black students with disabilities in grades K-12 was more than twice that of White students with disabilities (USDOE, 2016c). Additional research has shown that the disproportionate representation

of Black students with disabilities in out-of-school suspension is highly correlated with a higher dropout rate, lower academic achievement, and overrepresentation in the penal system as compared to White students with disabilities (Losen, Ee et al., 2015; Noltemeyer, Ward, & McLoughlin, 2015; Vanderhaar, Munoz, & Petrosko, 2015; Wolf & Kupchik, 2016).

In addition to the guidance given by the USDOE, and OCR, the Individuals with Disabilities in Education Act (IDEA), which was reauthorized in 2004 (USDOE, 2016a), set forth guidelines for public schools across the United States that require states to collect and report yearly suspension, dropout, and graduation rates of students with disabilities disaggregated by race/ethnicity, sex, and disability. This data collection allows state departments of education and the USDOE to identify public-school districts that display disproportionality of any group that is represented in disciplinary procedures, or in any special education category as compared to their representation in the student population. Districts found to have disproportionate representation of students in any single special education category or in disciplinary proceedings are subject to monetary sanctions.

The IDEA (U. S. Department of Education, 2016a) also created legal protections for students with disabilities in relationship to in-school and out-of-school suspension to ensure that these students receive a Free and Appropriate Public Education (FAPE) in their Least Restrictive Environment (LRE). In order to receive FAPE, a student must be attending school and making progress in the general education curriculum. If extended periods of absence from school, such as those caused by suspension, impact a student's

ability to make progress in the general education curriculum, a student is not considered to be receiving FAPE.

When students with disabilities are suspended from school for more than 10 school days in a given school year, their suspensions are subject to review through the manifestation determination process. This process requires a team of knowledgeable individuals from the school system, that also includes the parent, to review the offense that resulted in a recommendation for suspension in relationship to the student's disability. According to IDEA (U. S. Department of Education, 2016a), if the behavior in question is caused by, or is found to have a direct and substantial relationship with the student's disability, the student may not be disciplined in the same manner as a student who has no disability. The student must continue to receive services as listed in the student's individual education program (IEP) so that progress may be made on their goals and in the general education curriculum. IEP teams that include at least one general education teacher of the child, one special education teacher of the child and a representative from the school district (usually a school administrator), and the parent, must study student behavior and adjust the IEP to address the student's behavioral and social emotional needs as they relate to the student's disability.

During the 2011-2012 school year, 1.2 million Black students were suspended nationally; of those suspensions, 55% occurred in 13 Southern states (Smith & Harper, 2015). In these states, the rates at which Black students were suspended were disproportionately high compared to their representation in the general population. In the Smith and Harper (2015) analysis, it was noted that in 743 southeastern school districts

within the 13 southeastern states, on average, Black students comprised 24% of the school population, however they comprised 50% or more of the students suspended from school. Furthermore, in 346 districts of the 743 southeastern school districts examined, Black students comprised 75% or more of the students suspended; and in 84 districts of the 743 southeastern school districts examined, Black students comprised 100% of the students suspended from school.

The district analyzed in this study is located in one of the 13 southern states analyzed by Smith and Harper (2015), and has consistently had a higher number of Black students with disabilities represented in school disciplinary procedures as compared to their representation in the school population. To date, other types of disproportionality have not been investigated in this district. In the study district, no investigation has been found on the possible predictive relationships between student-related characteristics—including race/ethnicity, gender, age, grade level, disability status, and school location—and discipline factors, such as the number of discipline referrals, the type of discipline referrals, and the number of suspensions.

The purpose of this study was to identify and understand the trends in data related to the phenomena of disproportionality in disciplinary procedures of any group as identified by the data, as compared to the group's representation in the general population. Identification of discipline patterns—disaggregated by race/ethnicity, gender, age, grade level, disability status, and school location—allowed me to identify the characteristics that were more likely to be associated with disciplinary actions that could account for, or contribute to, disproportionality. The study district could use the study's

results to plan and implement appropriate interventions and to examine policies could lead to a decrease in disproportionate disciplinary referral and suspension of each group identified through the data, in order to avoid the negative repercussions associated with such disciplinary measures.

In this chapter, the problem is defined on a local level; how it relates to similar patterns at the national level is noted. I have defined the study purpose, and outlined the study in terms of the research questions and hypothesis, and grounded it firmly in the theoretical framework of behaviorism as described by Skinner (1965). The nature of the study, definitions, assumptions, limitations, and scope of the study are also given in Chapter 1.

Chapter 2 outlines the literature search strategies used, provides the theoretical foundation for the study, and examines current research related to each of the study variable, and the research methodology. Chapter 3 describes the research design and rationale, the study methodology, data analysis plan, threats to validity and ethical procedures used. Chapter 4 includes all data collected during the study, an analysis of the data and, a summary of the study results. Chapter 5 concludes the study with an interpretation of the findings, recommendation for further study, and the implications of the finding on the study district as well as implications related to social change.

Background

On January 28, 2014, the U.S. Secretary of Education issued a Dear Colleague letter to all K-12 public-school districts and outlined the need for districts to examine their discipline policies (Duncan, 2014). The letter presented national discipline data that

indicated the overuse of suspensions and expulsions on students of color and those with disabilities. Secretary Duncan urged all K-12 schools to engage in three activities: create positive school environments, which have been shown to prevent and change inappropriate student behaviors; establish clear and consistent expectations to prevent misbehavior, and analyze data to strive for fair and equitable discipline policies and practices. The letter indicated that disproportionate representation of any group of students in disciplinary actions would be considered as discrimination and subject to civil rights legal action (Epstein, 2014).

During the 2013-2014 school year, the national suspension rate for Black students with disabilities in grades K-12 was more than twice that of White students with disabilities (USDOE, 2016c). According to the Office of Civil Rights (USDOE, 2016c), 23% of male Black students with disabilities received one or more out-of-school suspensions compared to a 10% suspension rate for White males with disabilities. The same report indicated that one in five Black females with disabilities received one or more out-of-school suspensions as compared to only one in 20 White females with disabilities. This disproportionate representation of Black students with disabilities in disciplinary actions is concerning given the negative outcomes associated with out-of-school suspension.

Black students with disabilities were not the only students with disabilities who were suspended nationally at a disproportionate rate (USDOE, 2016b). Twenty-two percent of Native American, 23% of Native Hawaiian or other Pacific Islander, and 25% of multiracial males with disabilities received out-of-school suspensions as compared to

10% of White males with disabilities. Nondisabled students from these racial groups were also disproportionately suspended from school. While Native American, Native Hawaiian or Pacific Islander and multiracial males without disabilities represented 15% of the total school population, they represented 19% of K-12 students who received one or more out-of-school suspensions (USDOE, 2016c).

Out-of-school suspension is significantly correlated with school dropout rate (Noltemeyer et al., 2015). A meta-analysis of 53 cases from 34 studies, conducted by Noltemeyer et al. (2015), also showed a significant correlation between high rates of suspension and low academic performance as well as a significant positive relationship between overall out-of-school suspension rate and school dropout. The researchers found these trends particularly disturbing considering that low-income and urban schools that face multiple challenges related to academic achievement and dropout have a considerably higher rate of suspension than other schools. This meta-analysis did not include any studies at the preschool level and very few at the elementary level. In an earlier study by Vincent et al. (2012), which was not examined in the meta-analysis, out-of-school suspension was linked to low academic achievement as measured by state accountability tests. In the study conducted by Vincent et al. (2012), the researchers identified a link between “achievement gap” and racial disparities in discipline.

Two studies outlined the negative effects of school suspension on outcomes in adulthood, such as experiencing criminal victimization, involvement in criminal activity, and becoming incarcerated (Losen, Ee et al., 2015; Wolf & Kupchik, 2016). Research has identified multiple groups that are at risk for disproportionate use of disciplinary

procedures in schools, with Black students with disabilities at the highest level (Losen, Ee et al., 2015; Skiba, 2002; USDOE, 2016b). Negative outcomes related to suspension were seen at disproportionately higher rates in each of these at-risk populations.

A lack of research exists on the extent to which the student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location may be related to discipline referrals, type of discipline referral and suspension. In this study, I addressed this gap in seeking a deeper understanding of how the student-related characteristics may relate to the disproportionate representation of any group identified through the data in disciplinary procedures in the study school district. The results from this study could provide the district with information that could lead to a change in policy and disciplinary practice that create an equitable use of disciplinary procedures across the district.

Problem Statement

In public schools across the nation, Black students with disabilities are involved in office referrals for disciplinary infractions as well as suspensions from school at a much higher rate than White students and students without disabilities (Losen, Ee et al., 2015; Skiba, 2002). A national report examining data for the 2011-2012 school year (Losen, Ee et al., 2015) indicated that these patterns of exclusionary discipline of Black students with disabilities have been present for many years. Given the knowledge that disproportionate representation of Black students with disabilities in out-of-school suspension is highly correlated with school drop-out, low academic performance, criminal victimization, involvement in criminal activity and incarceration (Losen, Ee et

al., 2015; Noltemeyer, Ward, & McLoughlin, 2015; Vanderhaar, Munoz, & Petrosko, 2015; Wolf & Kupchik, 2016), it is important that specific patterns of inequity be revealed at both state and local levels so that interventions may be planned and implemented to prevent them.

In an official communication from the North Carolina Department of Public Instruction on April 17, 2014 (Hussey, 2014), one school district in the southeastern United States was identified as having “significant disproportionality in disciplinary actions for Black students with disabilities, in 2013-2014” (p. 1) based on school discipline data reported for the 2012-2013 school year. These disciplinary actions included suspensions from school and cumulative suspensions that extended beyond 10 academic days in a school year. The memorandum indicated that Black students with disabilities in this school district received out-of-school suspensions for over 10 cumulative days in 1 school year at a rate of 6.56% as compared to the state average of 2.5% in the same school year. Black students with disabilities were determined to be four times more likely to be suspended from school than their White peers with disabilities in this district during the 2012-2013 school year (Hussey, 2014). For three consecutive school years, the district had a significantly higher rate of Black students with disabilities suspended for more than 10 school days in 1 school year. Each year the rate of suspension for Black students with disabilities was more than twice the state average. Due to the disproportionate representation of Black student with disabilities in disciplinary suspension, the district was subject to allocating 15% of the district’s federal special education funds to Coordinated Early Intervening Services (NC Policies

Governing Services for Children with Disabilities, 2014). These funds were allocated to the district's general fund to allow the district to implement research-based interventions to prevent Black students with disabilities from being disciplined at a disproportionate rate.

Even though it is known that the study district has a history of disproportionate representation of Black students with disabilities in disciplinary procedures, a complete analysis of other types of disproportionality in the district derived from other variables had not been done. The possible predictive relationships between (a) student-related characteristics including race/ethnicity, gender, age, grade level, disability status, and school location and (b) discipline factors, such as the number of discipline referrals, the type of discipline referrals and the number of suspensions, had never been investigated. Disaggregating and analyzing district discipline data allowed the district to examine the identified patterns of discipline. This examination could lead to the planning and implementation of appropriate interventions and an examination of policies that could lead to a decrease in disproportionate disciplinary referral and suspension for the groups identified through the data.

Purpose of the Study

The study purpose was to identify and understand the possible predictive relationships between (a) the predictor variables, referred to in this study as "student-related characteristics," these included race/ethnicity, gender, age, grade level, disability status, and school location, and (b) three outcome variables, including number of discipline referrals, type of discipline referrals, and number of suspensions. Identification

of discipline patterns made it possible to identify the characteristics that were more likely to be associated with disciplinary actions that could account for, or contribute to, disproportionality. To address the study problem, I used a quantitative approach with nonexperimental, ex post facto, correlational analysis. I used this analysis to identify the statistically significant student-related characteristics associated with the disproportionate referral or suspension of identified groups of students.

I provided the study results to the district so that it could understand the relationship between student-related characteristics and discipline outcomes that had occurred in the district. While the study district has had a history of disproportionate representation of Black students with disabilities in suspensions, this study helped to identify novel patterns in school discipline. These results could encourage district administrators to examine policies, determine appropriate interventions, and identify best practices that to decrease inequity in disciplinary procedures.

Research Questions and Hypotheses

The following questions were used to guide the investigation for all students enrolled in one southeastern school system who had received one or more office discipline referrals during the 2015-2016 school year.

1. RQ1: What are the predictive relationships between student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location and the total number of discipline referrals?

H0: No student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to the total number of discipline referrals.

H1: One or more of the student-related characteristics (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to the total number of discipline referrals.

2. RQ2: What are the predictive relationships between student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location with type of discipline referrals?

H0: No student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to type of discipline referrals.

H1: One or more of the student-related characteristics (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to type of discipline referrals.

3. RQ3: What are the predictive relationships between student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location with suspensions?

H0: No student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to suspensions.

H1: One or more of the student-related characteristics (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to suspensions.

Theoretical Foundation

I used the theoretical foundation of behaviorism for this study, as described by Skinner (1984). School discipline and behavior modification techniques in the 21st century are based in behaviorist theory. Patterns of behavior are maintained by the patterns of either positive or negative consequences that a person experiences over time. Operant conditioning (Skinner, 1965) reveals three conditions that increase or decrease behaviors. The first is positive reinforcement. Behaviors are reinforced through the provision of something that a person finds rewarding. The second operant reinforcement discussed by Skinner (1965) is negative reinforcement. Negative reinforcement is the strengthening of behaviors by the removal of an unpleasant stimulus. The third operant reduces the repetition of a behavior, and is referred to as punishment. Punishment has been, and continues to be, used in some schools. Punishment includes the use of physical punishment and the removal of students from their peer groups.

Behaviorism is founded on the premise that behaviors are modified by providing both positive and negative consequences. Once the desired behavior is determined, the environment is modified to provide positive consequences for desired behaviors and negative consequences for behaviors that are not desired (Skinner, 1984). One current application of these principles in schools across the United States is applied behavioral

analysis (ABA). ABA attempts to change behavior by assessing the function of a student's aberrant behavior and structuring the environment to develop replacement behaviors that are more acceptable in the given context of the situation and to serve the same function as the aberrant behavior (Slocum et al., 2014).

Many school discipline practices and interventions are grounded in behaviorism. Behaviorism is a learning theory based on the concept that all behaviors are driven by the consequences that a person receives for their behaviors. Many school districts across the United States employ Skinner's (1965) first operant, positive reinforcement through positive behavior intervention and supports (PBIS). PBIS is based on the provision of positive reinforcement to enhance student behavior across school settings (Lewis, Mitchell, Bruntmeyer, & Sugai, 2016; Sugai, Fallon, & O'Keefe, 2012). The third operant described by Skinner (1965) is punishment. Punishment is implemented in school districts using in-school or out-of-school suspension (Gershoff, Purtell, & Holas, 2015; USDOE, 2016b).

If behaviorism were truly at work in school discipline, there would be no identifiable differences in patterns of behavior, referral patterns, or disciplinary dispositions that were not related to the environment only. If students in each school were rewarded and disciplined equally, we would not expect to see discipline referrals that were out of proportion to a student's representation in the school population. For example, if the school population included 53% White students, 25% Hispanic students, 15% Black students and 7% Asian students, we would expect that discipline rates would reflect these same percentages (Vargas, 2013; Skinner 1984). In other words, student

characteristics including gender, age and race/ethnicity should have no connection to discipline outcomes. By exploring the trends in discipline data in the study district, using the lens of behaviorism, the results that I provided to the district may encourage it to examine its disciplinary patterns and to intervene to reduce the inequitable application of disciplinary procedures as has been seen historically with the suspension of Black students with disabilities.

Nature of the Study

I used data from one southeastern school district to identify and understand the possible predictive relationships between student-related characteristics (predictor variables) and discipline outcomes (outcome variables). Identifying the discipline patterns allowed me to identify the characteristics that were more likely to be associated with possibly disproportional disciplinary actions. To address this problem, I used a nonexperimental, ex post facto analysis. This quantitative design used archival data on discipline collected during the 2015-2016 school year. All districts in the state collect discipline and demographic data every year from every school using a state-provided accountability database. The data were verified locally and transmitted to the state department for analysis. The study district provided the requested discipline data. Using SPSS 23.0, I disaggregated the study data by the predictor variables, the student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location. In alignment with the data collection database (Powerschool, 2016), race was classified into one of six categories: Asian/Pacific Islander, White, Black, Native American/ Alaskan, Hawaiian. The sixth category for race is listed by the district as two

or more. In many studies, the category of two or more relates to the category of multiple race. Ethnicity was indicated as Hispanic (yes or no). Age was reported numerically (5–22). Grade was coded KG for Kindergarten and then numerically for each year of school thereafter. Grade level data were grouped into three levels: Elementary (KI- 5), Middle (6-8) and High (8-15). Disability status was reported as yes (a student was identified as having a disability under IDEA or Section 504) or no (the student was not identified as having a disability). The outcome variables studied included the number of discipline referrals issued in the school year, the type of discipline referrals issued, and suspensions. The type of discipline referral was coded numerically into one of 102 offense types, as listed in the district's data system (Powerschool, 2016). Suspensions were coded into one of four categories, including in-school suspension, out-of-school suspension, out-of-school suspension remainder of year, and out-of-school suspension 365 days.

For the categorical variables, I used chi-square tests for independence to determine how likely the observed frequencies of the events being analyzed were due to chance. Chi-square analysis was appropriate because the research predictor and criterion variables being analyzed were mutually exclusive categorical data (Triola, 2012). In addition, I used logistic regression analyses for outcome variables that were categorical in nature, such as type of variable and suspension. I used linear regression for outcome variables that were continuous, such as number of referrals (Triola, 2012). These analyses identified where disproportionality was likely to be occurring with respect to each variable.

Assumptions

This study was subject to two assumptions. One, it was assumed that the archival data were complete and accurate. The data were pulled from the same reporting system that is used to report data annually to the State Department of Education (PowerSchool, 2016). Therefore, the data were considered to be complete and accurate. Two, it was assumed that that all schools in the district consistently used the guidelines as written and that the discipline data were reported according to established guidelines (School District Student Handbook, 2015).

Scope and Delimitations

This study used disaggregated archival discipline data from one southeastern school district to identify the statistically significant student-related characteristics that were associated with the disproportionate suspension of Black students with disabilities in comparison to their peers of other ethnicities and those without disabilities. The goal was to provide the district with information that would allow them to identify patterns of discipline that could contribute to disproportionality.

The population included in this study were all students in a K-12 public-school district with approximately 32,000 students who received at least one discipline referral during the 2015-2016 school year. Students in the preschool setting were excluded due to the range of settings in which they were served and the fact that preschool attendance is not mandatory for students from 3–5 years old. Since this study was of one southeastern school district, and the definitions used for disciplinary referral may not be consistent

with other school districts, and the ability to generalize results to other school districts is limited.

Limitations

The limitations of this study included those related to both data collection and generalizability of the results. The district collected discipline data for the 2015-2016 school year during the normal business operations (day-to-day operations). As a researcher, there was no opportunity to request additional data, or to manipulate the data that were collected. Therefore, no additional information could be requested to address the research questions posed.

In the regular course of school operation, school discipline referrals were produced by individual school staff members and were investigated by school administrators. While the school district policy seeks to define inappropriate behavior and how each type of behavior should be disciplined, differences in how school staff interpret behavior, their understanding of discipline policy, and how school administrators apply discipline all have an uncontrollable impact on the data.

The data collected did not include any disciplinary infraction that may have occurred but was resolved in individual classrooms and without formal documentation via an office referral. Due to differences in how individual staff members address discipline, there may be a great variance in the types of infractions that are handled in and across classrooms in the district. Therefore, the data did not represent all disciplinary infractions that take place in the school district. Even though every behavior eligible for consideration as a disciplinary infraction may not be represented in the data set, it is

reasonable to assume that a sufficient number and wide range of behaviors across the school system were included. Thus, it is safe to say that the data set used for this study was an accurate representation of typical disciplinary procedures and processes for this district.

As a matter of convenience, I selected the school district in which I work. In the scope of my job, I could not administer any type of student discipline, nor make any disciplinary referrals, nor did I have any supervisory responsibility for the administrators who dispensed disciplinary consequences. As an administrator in the district I did not contribute either directly or indirectly to the collection of these data.

Significance

This study addressed a local problem by analyzing student discipline data for the 2015-2016 school year to identify and understand the possible predictive relationships between student-related characteristics and discipline factors. Analysis of discipline patterns allowed me to identify the characteristics that were more likely to be associated with disciplinary actions that suggested disproportionality. While the study district had a history of disproportionate representation of Black students with disabilities in suspension, it was important to examine all student-related characteristics in relationship to office referrals, as well as in-school and out-of-school suspensions, to determine if there were patterns in school discipline that had not previously been identified. This research was unique for this setting, because a comprehensive analysis of disaggregated discipline data had previously never been performed.

Discipline data are reported to the state department by all school districts on an annual basis. Districts identified by the state as having disproportionate representation of students with disabilities in discipline procedures are subject to state sanctions (USDOE, 2016). During the 2014-2015 school year, the study district was identified as a district with disproportionality and was subject to allocating 15% of federal special education funds to Coordinated Early Intervening Services (North Carolina Policies Governing Services for Children with Disabilities, 2014).

Examining the data trends could allow district administrators to determine interventions, examine policy, and identify best practices that could decrease inequity in discipline, and allow the district to be removed from state sanctions. A reduction in disproportionate suspension of Black students with disabilities or other identified group of students could also allow these students to access their education more uniformly. More uniform access to the educational setting for this diverse student population could result in both academic and social gains. The data collection and analysis in this study also addressed a gap in current research by providing information on the extent to which student-related characteristics were related to discipline referrals, type of discipline referral, and suspension.

Summary

In Chapter 1 I covered the following topics: an introduction to the study, statement of the problem, purpose of the study, research questions, conceptual framework, assumptions and limitations of the study, and the significance of the study. The purpose of this quantitative non-experimental, ex post facto analysis was to identify

and understand the data related to the phenomena of disproportionate representation of students in disciplinary procedures. I viewed this study through the theoretical framework of behaviorism. This research was unique for this setting because a comprehensive analysis of disaggregated discipline data had previously never been performed. The results from this study provided the study district with an understanding of the patterns in discipline that may be related to disproportionality in office referrals and suspensions of students with disabilities, as well as providing suggestions for improving the overall suspension rate.

In Chapter 2 I begin with a review of the strategies used to provide an exhaustive review of current literature related to disproportionality of students in school discipline procedures. I present a review of the literature that pertains to disciplinary trends in K-12 public schools across the United States, as they relate to specific student characteristics including race/ethnicity, gender, age, grade level, disability status, and school location. This examination of the research includes current national policy trends as they relate to the disproportionate representation of Black students with disabilities in disciplinary procedures, and was viewed through the theoretical framework of behaviorism. I then conclude with a summary of the major themes in the literature that link the present study to a gap in current practice.

In Chapter 3 I describe the research design and rationale, the study methodology, data analysis plan, threats to validity and ethical procedures used. Chapter 4 includes all data collected during the study, my analysis of the data and, a summary of the study results.

Chapter 5 concludes the study with my interpretation of the findings, my

recommendations for further study, and the implications of the finding on the study district as well as the implications of the study for social change.

Chapter 2: Literature Review

Introduction

On January 28, 2014 Secretary of Education Duncan issued a Dear Colleague letter to all K-12 public-school districts in the United States outlining the need for school districts to examine their discipline policies. The letter presents national discipline data that demonstrate the overuse of suspensions and expulsions that have been shown to have a disproportionate impact on students of color and students with disabilities. Further, the letter indicates that disproportionate representation of any group of students in disciplinary actions may be considered as discrimination and subject to civil rights legal action (Epstein, 2014).

For decades, researchers have reported that Black students with disabilities in public schools have been involved in office referrals for disciplinary infractions, and have been suspended from school at a considerably higher rate than White students with disabilities (Balfanz & Fox, 2015; Losen & Gillespie, 2012; Skiba, 2002). Researchers indicate that Black students with disabilities were not the only students suspended at a disproportionate rate (USDOE, 2016b). Twenty-two percent of Native American, 23% of Native Hawaiian or other Pacific Islander, and 25% of multiracial males with disabilities received out-of-school suspensions as compared to 10% of White males with disabilities. Nondisabled students from these racial groups were also disproportionately suspended from school. While Native American, Native Hawaiian or Pacific Islander and multiracial males without disabilities represented 15% of the total school population, they represented 19% of K-12 students who received one or more out-of-school suspensions

(USDOE, 2016b). Given the knowledge that out-of-school suspension is highly correlated with higher dropout rate, lower academic achievement, and overrepresentation in the penal system, (Losen, Hodson et al., 2015; Munoz & Petrosko, 2015; Noltmeyer et al., 2015; Vanderhaar et al., 2016), it is important that disproportionality be understood at both state and local levels so that interventions may be considered to prevent negative results for students who are already considered ‘at risk’ for negative school outcomes.

The public-school district examined in the current study had been cited for violations of the policies and procedures governing students with disabilities by the State Department of Education because, for three consecutive school years beginning in 2011, it had suspended Black students with disabilities at a rate more than three times that of White students with disabilities (Hussey, 2014). Using a quantitative, non-experimental, ex post facto analysis, I identified possible predictive relationships between student-related characteristics and discipline factors. In this district, there was a lack of research on the extent to which student-related characteristics could be related to discipline referrals, type of discipline referrals, and suspension. In this study, I addressed this gap through a deeper understanding of how these variables might relate to identified disproportionality. The results of this study were expected to provide the district with information that could lead to an examination of policies and practices. As a result, solutions to this problem might arise and thus improved outcomes for Black students with disabilities, or any other group of students that may be found to be inequitably disciplined.

In Chapter 2 I link the theoretical foundation of behaviorism to the current research. I provide a comprehensive review of the current literature as it relates to each of the study variables. I conclude this chapter with a summary of the major themes in the literature and provide a conclusion that links the present study to a gap in current practice.

Literature Search Strategy

The electronic research databases that were used to conduct the literature review included the following: Bureau of Justice Statistics, Criminal Justice Database, Disabilities Statistics, EBSCOhost, Education Source, ERIC, Google Books, Google Scholar, NCES Publications, ProQuest Central, ProQuest Dissertations & Theses Global, and SAGE Journals, SAGE Research Methods Online, ScholarWorks, Thoreau Multi-Database Search, US Department of Health and Human Services and Walden Library Books.

The initial search of literature began using the following keywords: *school discipline, behavior problems, school exclusion, disruptive school behavior, school suspension, and school exclusion*. Once these search terms were exhausted, additional searches were necessary and included a combination of the following keywords *urban education, student outcomes, out-of-school suspension, appropriate discipline, discipline and instructional time, improving discipline in schools, discipline gap, social justice leadership, Black/ Black, ethnic, office referral, civil rights, expulsion, disproportionate or disproportionality, critical-race theory, behaviorism, punishment, corporal punishment in schools, reward, educational leadership, and school-to-prison pipeline*.

The original search for peer-reviewed literature was limited to the period 2013 to 2016. This literature led to primary works in the field that ranged back to as early as 2011. Seminal research that supports the study's theoretical foundation ranged from 1965 to 1985. A final round of searches included 2017.

Theoretical Foundation

The theoretical foundation for this study was behaviorism as described by Skinner (1984). One cannot view current practices in school discipline and behavior modification techniques that are used in public schools in the 21st century without looking through the lens of behaviorism. Behaviorism was founded on the premise that all behaviors are modified by experiencing positive and negative consequences. In order to produce desired behaviors, one must first identify what behavior is desired in the context of a situation, or environment. Once the desired behaviors are identified, the environment is structured to provide positive consequences for desired behaviors and negative consequences for behaviors that are not desired (Skinner, 1984).

Current discipline practices in schools and classroom management strategies have their roots in behaviorism. Skinner (1965) explains that patterns of behavior are maintained by the patterns of either positive or negative consequences that a person experiences over time and refers to this pattern as operant conditioning. As described by Skinner (1965) operant conditioning reveals three conditions that increase or decrease behaviors. The first is positive reinforcement. Behaviors are reinforced through the provision of something that a person finds rewarding. Many public-school districts, including some schools in the study district, employ the use of positive behavior

intervention and supports (PBIS). This multi-tiered framework is based on the provision of positive reinforcement to enhance student behavior across school settings while teaching students which behaviors are desired (Lewis, Mitchell, Bruntmeyer, & Sugai, 2016; Sugai et al., 2012).

The second operant reinforcement discussed by Skinner (1965) is negative reinforcement. Negative reinforcement is the strengthening of behaviors by the removal of an unpleasant stimulus. While school districts do not engage in purposeful use of this technique, one can argue that some students are reinforced for poor behavior using suspension (Bear, 1998). This argument implies that, if students find school to be unpleasant and act in ways that result in suspension (or otherwise removed) from school, the behaviors are strengthened.

The third operant that Skinner describes (1965) is referred to as punishment. Punishment is intended to reduce the repetition of a non-preferred behavior. Punishment has been, and continues to be, used in some schools (Gershoff, Purtell, & Holas, 2015). Like reinforcement, punishment may take positive or negative approaches. A positive approach is one where an aversive stimulus is introduced in an effort to reduce the repetition of a non-preferred behavior. The use of corporal punishment is one application of positive punishment that continues to be applied in some school districts in the United States (USDOE, 2016, July 29). A negative approach to punishment is one in which a pleasant or desirable stimulus is removed to reduce the repetition of a non-preferred behavior. The removal of students from their peer group is an example of this negative approach to punishment. In public-school districts in the United States, the removal of

students from their peer group often takes the form of in-school or out-of-school suspension (USDOE, 2016, July 29).

When examining reinforcement and punishment in a school setting it is necessary to understand the function of a student's behavior to effectively apply reinforcement or punishment. If students wish to escape from their peer group, the peer group would be considered an adverse stimulus as the students are not reinforced by interaction with the peer group. In this case suspension would be considered negative reinforcement rather than punishment. In effect, suspension would serve to increase the behavior in which the students engage to escape the peer group. Conversely, if the function of students' behavior is to engage with the peer group, the peer group would be considered a positive reinforcement. In this case suspension would be considered a negative punishment because the removal of the peer group would be expected to decrease the likelihood that students would engage in the non-preferred behavior in the future.

When viewing school discipline through the lens of behaviorism, we would expect to see no identifiable difference in patterns of behavior, referral patterns or disciplinary dispositions that were not related to the environment only. If students in a given school were rewarded and disciplined equally, we would not expect to see discipline referrals that were out of proportion to a student's representation in the school population. For example, if the school population included 53% White students, 25% Hispanic students, 15% Black students and 7% Asian students, and if the percentage of students who act out in each group is identical, we would expect that discipline rates would reflect these same percentages (Vargas, 2013; Skinner 1984). In other words, when

viewed through the lens of behaviorism, and if students exhibit identical behaviors, student characteristics such as gender, age and race/ethnicity should have no connection to discipline outcomes.

In the study district, and in many districts across the nation (Losen, Ee et al., 2015; Skiba 2011; USDOE, 2016b) patterns of discipline have been applied disproportionately to students of color and other ‘at risk’ populations. By identifying the trends in discipline data in the study district, through the lens of behaviorism, the district may examine its disciplinary patterns and intervene to reduce the inequitable application of disciplinary procedures.

Key Variables

The purpose of this literature review is to examine all key findings and implications of peer reviewed research that examines school discipline practices. Through this review I have identified several student-related characteristics that have demonstrated a relationship to disproportionate suspension practices. These student-related characteristics have been incorporated as predictor variables in my investigation, and include race/ethnicity, gender, age, grade level, and disability status. In this literature review I have discussed the findings of previous studies as they explore the predictor variables in relationship to the number of discipline referrals, types of discipline referral, and school suspension. The literature review synthesizes information from research that spans nearly two decades in relationship to disproportionate representation of certain subgroups in disciplinary procedures.

Race/ethnicity

In the United States, exclusionary discipline procedures have been applied at a higher rate to students of color as compared to their White peers, with Black students at the highest rate of exclusion, followed by Latinos and Native Americans (Losen & Gillespie, 2012; Losen, Hodson et al., 2015; USDOE, 2016c). According to a one-year snapshot of all public-school students in grades K-12 for the 2013-2014 school year, schools suspended students from historically disadvantaged subgroups at two to three times the rate of their non-disadvantaged peers (USDOE, 2016c). For example, during the 2013-2014 school year, Black students in grades K-12 were 3.8 times more likely to receive one or more out-of-school suspensions than their White peers. American Indian, Latino, Native Hawaiian and multiracial males represent 15% of the K-12 student population, but they represent 19% of students in grades K-12 who received one or more out-of-school suspensions.

Vincent et al. (2012) examined the relationship between office discipline referrals and the availability of supports for students who struggle with behavioral deficits. Students who received more intensive interventions were seen to have fewer office discipline referrals. These researchers determined that at the middle school level, Blacks were over-represented in office discipline referrals, however, Black students were less likely to receive intensive interventions (Vincent et al., 2012). In this study, Hispanic students were over represented in intensive interventions, and both Hispanic and White students were underrepresented in office discipline referrals.

National trends in discipline have been documented over a span of nearly two decades through the disaggregation of student data using descriptive and inferential statistical methods. One of the earliest examinations of disaggregated student data at the national level was conducted by Losen and Gillespie (2012). They examined 2009-2010 school year data that was collected by the OCR. This examination provided one of the first glimpses into the overrepresentation of students in disciplinary suspensions along racial lines. Losen and Gillespie (2012) identified trends at the national, state, and local levels. At the national level, they found that 1 in every 6 Black school-children enrolled in K-12 public education was suspended at least one time, as compare to 1 in 13 Native Americans; 1 in 14 Latinos; 1 in 20 Whites and 1 in 50 Asian Americans. In addition, they found that 25% of Black children with disabilities were suspended at least once in 2009-2010.

When looking at state trends as they relate to race, Losen and Gillespie (2012) noted that suspension rates vary greatly between states; for example, South Carolina suspended 12.7% of all enrolled students while North Dakota's rate was 2.2%. When examining racial suspension in each state they determined that Blacks had the highest suspension rates in most states, however in Montana, White students (3.8%) were suspended more often than Black students (3.4%). Other research from the state of Massachusetts indicated that Black students enrolled in Massachusetts public schools were 3.7 times more likely to receive out-of-school suspension than their White peers (Taylor, Cregor, & Lane, 2014).

Regional differences in suspension were also noted in a study conducted by Toldson, McGee and Lemmons (2013), who found that 41% of students in the south had reported having been suspended or expelled as compared to 18-20 % of students in all other regions. In a later study of using the national public, K-12 OCR database (USDOE, 2016c) for the 2011-2012 school year, Smith and Harper (2015) examined 13 southern states and concluded that Black students were nearly half of all students suspended and expelled from public schools. This phenomenon is not a new one. Losen, Hodson et al. (2015) tracked out-of-school suspension rate over time by race and ethnicity for K-12 public schools. They found a significant gap between the suspension of Black and White students that increased steeply from the early 1970s to the early 1990s. More gradual increases followed the sharp increases until they leveled off to a 10% to 11% gap between 2005-2012.

In a study of females in Ohio during the 2012-2013 school year, it was determined that there was a significant disparity between the suspension of White females as compared to Black females (Blake, Butler, & Smith, 2015). In this study, Black females were suspended at nearly seven times the rate of White females. They further found that, for the same offense, the Black females received out-of-school suspensions at a statistically significant higher rate than White females who more frequently received in-school suspensions. A similar study in the state of Texas Slate, Gray and Jones (2016) analyzed the extent to which Black girls received in-school-suspension, out-of-school suspension, and assignment to alternative school settings for disciplinary reasons, during the 2013-2014 school year. They analyzed Grades 4-11. At

all grade levels, Black girls received in-school suspension, out-of-school suspension, and disciplinary alternative school placement at a statistically significantly higher rate than White and Hispanic girls. Disciplinary placements in an alternative school setting were disproportionately skewed toward Black girls. Black girls received 66% of disciplinary alternative school placements whereas Hispanic girls comprised 34%, in contrast there were no placements of White girls in this setting.

In New York City Schools, the annual number of suspensions grew from less than 29,000 in 2001 to nearly 70,000 in 2011 (New York Civil Liberties Union, 2013). Black students were less than 33% of the school population, however they served half of all suspensions in the 2010-2011 school year. Whites were 14% of the enrollment and served only 7% of the suspensions. During this period, 60% of all school arrests involved Black students. From 2011-2013 Black and Latino students were involved in 90% of school arrests, and were 70% of the school enrollment. Of the school arrests, 60% of the summonses were issued for disorderly conduct which is considered a subjective violation (New York Civil Liberties Union, 2013). Serious behaviors in school (weapons, drugs) account for less than 5% of behavioral incidents in schools (Zhang, Musu-Gillette, & Oudekerk, 2016).

Multiple researchers indicated that contextual factors such as higher rates of student misbehavior and higher rates of poverty do not account for such racial disparity in disciplinary procedures (Huang & Cornell, 2017; Losen & Gillespie, 2012; Gastic, 2016; McFadden, Marsh, Price, & Hwang, 1992). Through an examination OCR data in one school district in North Carolina, Losen and Gillespie (2012) found that, in the state of

North Carolina, Black first-time offenders were suspended at statistically significantly higher rates than White first-time offenders for the same offense. Although this study was limited to one school district in the state, during one school year, additional studies reflect similar trends. In the state of Massachusetts, Black students who were involved in fights faced discipline 25% of the time as compared with White students who were disciplined 15% of the time (Gastic, 2016). In an examination of 4,391 discipline records in one south Florida school district, McFadden et al. (1997) identified that Black male students received harsher punishment, such as corporal punishment or out-of-school suspension, than White students who received in-school suspension for similar infractions.

Generational status was an additional student-related parameter examined by Peguero, Shekarkhar, Popp and Koo (2015). Peguero et al., 2015 examined racial inequity in school discipline along racial and ethnic lines using data from the Educational Longitudinal Study of 2002. The results from the study indicated that Black and Latino students were disciplined at a significantly higher rate than White and Asian-American, however they also examined study data by generational status. Peguero et al. (2015) conclude that, when other student and school factors were controlled for, children of immigrants were not misbehaving more in school than their White counterparts. There were very complex relationships between generational factors and discipline. First generation Black and Latino student were less likely to be disciplined in schools than second or third generation students of these ethnicities.

Racial and ethnic disparities in discipline were examined in the context of extra-curricular activities, and their relationship to in-school discipline (Latimore, Peguero,

Popp, Shekarkhar, & Koo, 2017). This study suggests that, while participation in extracurricular and sport activities reduced the likelihood of school-based discipline for White students, racial and ethnic minorities who participated in extracurricular activities and sport find themselves at greater risk for school-based discipline for misbehavior. Specifically, this study found that Latino students who were involved in school-based athletic activities were at risk for higher in-school discipline referrals for misbehavior.

Disproportionate representation of Black students in disciplinary actions is not limited to traditional public schools. An examination of charter schools (Losen, Keith, Hodson, & Martinez, 2016) and Montessori schools (Brown & Steele, 2015) both indicated that Black students were represented disproportionately in disciplinary proceedings at a rate that is comparable to that seen in traditional public schools. In the state of Connecticut (Connecticut State Department of Education, 2015) an examination of data indicated that, charter high schools exhibited the largest increase in rates of suspension and expulsion, and the highest average high school suspension rate (over 30%) for Black males between the 2011-2012 and 2013-2014 school years as compared to all other high schools. The same study determined that in preschool through fifth grade, elementary charter schools had much higher suspension and expulsion rates than other type of school serving those grade levels.

An examination of multiple quantitative studies (The Center for Civil Rights Remedies, 2013) indicated that the discipline gap between White students and Black students was not restricted to Urban schools. The discipline gap was seen in urban, suburban, and rural schools. Reducing exclusionary discipline practices and increasing a

feeling of safety in any school environment was dependent upon a high level of student engagement and high-quality relationships between teachers and students, and teachers and parents (Steinberg, Allensworth, & Johnson, 2013).

Anyon et al., 2017 suggested that the location in the school that behavioral incidents occur may contribute to the racial disparity in discipline office referrals. Further, they suggested that an understanding of such school sub-contexts may lead to interventions to reduce racial inequity in schools. The authors argue that exploring the relationships between race and discipline referrals by incident location may provide information about the types of approaches that may be used to reduce discipline disparities. If the patterns of referral vary by location and student race/ethnicity then the dynamics of the location, and people who monitor those locations, would be the target of intervention. If patterns of discipline do not vary by location then intervention would need to focus on larger institutional policies and practices. This study of one urban school district concluded that Black, Latino/a and Multiracial youth were no more likely than White students to have a discipline incident take place outside the classroom setting.

In a recent study, Lindsay and Hart (2017) found evidence that Black students may experience fewer office discipline referrals with exposure to same-race teachers. This study of longitudinal archival discipline data from all school systems in North Carolina from 2007-2013, examined discipline outcomes (ISS, OSS, and expulsion) in relationship to the race of the teacher. The authors found consistent patterns regarding teacher and student race. Black students who were exposed to larger proportions of same-race teachers decreased the likelihood of receiving exclusionary discipline. These results

were consistent across grade spans and were consistent regardless of free-and-reduced lunch status and gender. These results were supported by a study conducted by Roch and Edwards (2017) who found that teachers who worked in school with higher concentrations of students of a similar race were more cognizant of their students', and their own racial characteristics and were more likely to act when they recognize high levels of out-of-school suspension. Therefore, there was a decreased rate of disciplinary referral.

In addition, studies indicate that disproportionality cannot completely be attributed to student-related or school-related factors. Even when statistically controlling for poverty, attendance rates, and other factors, Black students were disciplined at higher rates than their White peers (Anyon et al., 2014; Skiba et al., 2014b; Togut, 2011). Ramey (2015) analyzed more than 60,000 schools in over 6,000 districts to determine characteristics of schools that were more likely to use exclusionary discipline rather than intervening utilizing more medical or psychologically based approaches to misbehavior. Schools and districts with larger economically disadvantaged populations were observed to resort to suspension of students, referral to police and arrest rather than schools that were more economically advantaged. Shabazian (2015) supports these findings and concurs that economically advantaged schools were more likely to view misbehavior through a medical or psychological lens and implement behavior management and therapeutic interventions on a more regular basis rather than resorting to exclusionary practices.

One study conducted in a Department of Defense Education Activity (DoDEA) high school with a total of 400 9th through 12th grader students (Mowen, Mowen, & Brent, 2017), suggested that racial and ethnic inequity in school discipline may be significantly reduced when schools have limited levels of structural disadvantage. This study included students who lived on a military base in the United States, and received schooling in the military base's high school. The authors suggested that when there is equity in the resources afforded to families and children there is less disparity in discipline along racial lines. The researchers attributed the lack of racial and ethnic disparities occurring in the study school to the abundance of resources (medical, mental health, educational, etc.) available to students and families that were evenly distributed across racial boundaries, and the military culture of the school. While these results are encouraging the generalizability of the results to other populations is highly limited.

Differences in the application of disciplinary measures such as office discipline referral or suspension have been associated with teacher and school administrator perception. In a recent study with teachers, Okonofua and Eberhardt (2015) determined that when teachers reviewed a description of an unknown student's behavior and were told that the behavior was a second occurrence, they more frequently recommended harsher discipline if the offender's name was associated with Black heritage than when the name was more evidently of White descent even when the described behavior was identical. DeMatthews, Carey, Olivarez and Saeedi (2017) conducted a qualitative study of 10 principals working in schools with racial disproportionality for school discipline and examined the ways that principals enact discipline related to race and school context.

They conducted interviews and focus groups, and defined three types of principal disciplinarians: overt racial justifiers, rigid rule enforcers and flexible and cognizant disciplinarians. Principals held certain beliefs about race, class, neutrality, and the importance of adhering to policy which influenced their beliefs about antecedents that led to misconduct and the appropriate disciplinary consequences. Principals classified as overt racial justifiers held deficit views of Black parents which justified harsh discipline consequences to reinforce ideals that they believe would not be reinforced in the home. Rigid rule enforcers believed that discipline should be consistent and remain neutral, and indicated that any flexibility showed weakness, did not prepare students for the real world, contributed to future misconduct, and created a perception of bias in the school pertaining to how students were disciplined. The flexible and cognizant disciplinarians assumed that parents did their best, chose to use discipline as a teaching tool, and considered student welfare when making discipline decisions. The authors concluded that principal preparation programs must aid their students in identifying and exploring systematic racism that operates in their districts and in their schools. Perry and Morris (2014) hypothesize that the negative outcomes of exclusionary discipline practices might have broader consequences than is currently understood. They state that exclusionary discipline disrupts educational progress which may lead to disengagement from the school community that may label them as deviants.

While the factors that contribute to the overrepresentation of Black students in disciplinary procedures are complex and varied, research spanning two decades indicated that Black students were disciplined at a much higher rate than students of other races

and ethnicities, followed by Latinos, and Native Americans (Losen, Hodson et al., 2015; USDOE, 2016b). Being Black, is a strong predictor for disciplinary procedures that include school office referrals, corporal punishment, in-school suspension, and out-of-school suspension. Researchers consistently indicated a need for school systems across the United States disaggregate discipline data to determine local trends, and to investigate possible interventions to address the trends indicating inequity in disciplinary procedures involving race and ethnicity (Losen & Gillespie, 2012; Losen, Hodson et al., 2015; Gastic, 2016; Skiba et al., 2014).

Gender

Through an examination of research related to gender and disciplinary procedures, it was evident that there were clear trends related to gender and office discipline referrals, in-school suspension, and out-of-school suspension. An examination of the most current K-12 Public School national database (USDOE, 2016c) indicated that males were subject to higher rates of office discipline referrals, suspension, and expulsion from school when compared to females. During the 2013-2014 school year, 6% of students in grades K-12 received at least one out-of-school suspension. The percentage of Black males receiving at least one out-of-school suspension was 18% as compared to a rate of 10% for Black females. The rate of suspension for White males was 5% and 2% for White females. Per this same report, Black females represented 8% of student enrollment, but comprised 14% of students receiving at least one out-of-school suspension. Females of other races or ethnicities were suspended at a rate that was commensurate to their representation in student enrollment.

As described below, multiple studies have concluded that being male is a student-related characteristic that is correlated with higher rates of office discipline referral, school suspension, and expulsion (Bryan, Day-Vines, Griffin, & Moore-Thomas, 2011; McFadden & March, 1992; Mizel et al., 2016; Hemphill, Plenty, Herrenkohl, Toumbourou, & Catalano, 2014; Skiba et al., 2002). In an examination of a national sample of 10th grade students, Bryan et al. (2012) used regression analysis to determine predictor variables for disciplinary referrals to school counsellors. In this study both gender and race were found to be predicative of disciplinary referrals. Students who were male, and students who were Black received disciplinary referrals at a significantly higher rate than the rate of referral for students who were White or female. These findings suggest that students who were sent to school counsellors were sent at the same disproportionate rates that were seen in studies that examine referrals to school administrators.

A study conducted during the 1987-1988 school year, determined that being male was a predictor for being involved in disciplinary procedures (McFadden & Marsh, 1992). This study of disciplinary action in one K-12 public-school district in Florida concluded that males represented three-quarters of all discipline referrals. They determined that the preponderance of referrals were for non-violent offences such as defiance of school authority, bothering others and truancy. Shortly after this study, Skiba et al. (2002) examined a one-year sample of discipline data at the middle school level at one mid-western school district and concurred that being male was a predictor for office referral and suspension even when controlling for socioeconomic status.

In 2016, Mizel et al. surveyed a diverse sample of 10th and 12th grade students in Southern California and discovered similar results. Males and Black students received office discipline referrals, suspension, and expulsion at a greater rate than their representation in the population. Unique to this study, the researchers examined individual and family factors that contributed to overall behavioral office referral, suspension, and expulsion and discovered that self-reported delinquent behaviors before and after school were a predictor for these disciplinary outcomes when controlling for demographic factors.

An examination of student and school-related factors across student populations in Washington state, and Victoria, Australia, by Hemphill et al. (2014) concluded that being male was a student-related characteristic that was significantly predictive of involvement in school disciplinary procedures, even though the two nations have quite different policies and procedures for school discipline. In a study of 4-year-old children (Morgan et al., 2012) discovered that being male also leads to being identified as delayed or disabled. They stated that boys were 2.08% more likely to be identified as disabled or delayed than girls. In a qualitative study examining school engagement, Cokley, McClain, Jones, & Johnson (2012) determined that Black males had higher levels of academic disidentification when compared to Black females and all White students. They hypothesized that Black males become disengaged in school due to a lack of Black male role models and exposure to high achieving Black students.

While being male was a predictor for higher rates of involvement in school discipline procedures, a mix of race and gender may lead to some females being at

increased risk for involvement in discipline procedures. Blake et al. (2015) conducted a cross-sectional descriptive analysis of Black females in the state of Ohio who received out-of-school school suspensions during the 2012-2013 school year. They examined the types of offences for which the students were suspended, as well as the types of suspensions that were issued (in-school vs. out-of-school). These researchers concluded that Black females were suspended at seven times the rate of White females. While both Black and White females were disciplined most frequently for disobedience/ disruptive behavior, Black females received out-of-school suspension most frequently while White females received in-school suspension, for the same infraction.

An examination of nation-wide school discipline data from the 2009-2010 school year (Losen & Martinez, 2013) indicated that Black females were at equal or greater risk of being suspended than White and Latino males. In a similar study an analysis of discipline records for Black girls in the state of Texas during the 2013-2014 school year (Slate, Gray, & Jones, 2016) resulted in the determination that Black girls in grades 4-11 received between three to seven times more in-school suspension, out-of-school suspension, and disciplinary assignment to alternative school settings than White and Hispanic girls. In one example of data analyzed in New York City Public schools during the 2011-2012 school year that examined expulsion. Crenshaw, Ocen, and Nanda (2015) discovered that 90% of the girls expelled from public schools were Black.

In a study conducted by Blake, Butler, & Smith (2015), Black females were suspended at nearly seven times the rate of White females. They found that, for the same offense, the Black females received out-of-school suspensions at a statistically

significantly higher rate than White females who more frequently received in-school suspensions.

George (2015) described possible relationships between implicit bias and stereotyping and their contributions to disproportionate discipline of Black females in the United States. George (2015) examines possible interventions to aid in the reduction of the gap between Black girls and girls of other races in discipline. In a recent examination of the effects of zero tolerance policies on the discipline of Black girls, Hines-Datiri and Andrews (2017) concluded that the ways in which adults implement discipline policies have direct implications on the gender and racial identity development of Black girls. They explained that zero tolerance discipline policies enforced in school systems may be based on the behavioral responses to White femininity that may not align with Black girls' perception of femininity and their school identification.

Morris (2012) conducted a literature review and determined that, while the paths of Black males toward the juvenile justice system has been extensively studied, the school discipline of Black girls has received less research. Morris (2012) revealed that the path of Black girls toward the juvenile justice system is often quite different than for boys in relationship to their gender, race and place (school, neighborhood). She concluded that more rigorous study is necessary to determine the best interventions to improve school engagement, and to prevent exclusionary disciplinary practices from moving Black girls from being involved in the juvenile justice system because of school discipline.

Recently, gender identity has been linked to school discipline disproportionality (Mallett, 2017). Mallett (2017) examined multiple research articles concerning discipline

and minority groups. This examination led the researcher to conclude that students who identify themselves as lesbian, gay, bisexual and transgender (LGBT) are at greater risk for involvement in school discipline, and involvement in the judicial system. One study conducted during the 2014-2015 school year (Palmer & Greytak, 2017) examined the responses of 8,215 K-12 LGBT public students in the United States. The students who participated in the survey indicated that LGBT students who are victimized at school experienced greater school discipline including office discipline referrals, detention, suspension, and expulsion. Staff response to victimization often contributed to higher levels of school discipline. Staff responses such as ignoring victimization, instructing the student to change their behavior, and disciplining the victim were all associated with higher levels of discipline.

Clear data exists that being male is a predictor for involvement in disciplinary office referrals, in-school suspension, and out-of-school suspension (Bryan, Day-Vines, Griffin, & Moore-Thomas, 2011; McFadden & March, 1992; Mizel et al., 2016; Skiba et al., 2002). These data have been recorded over multiple decades across the United States, and in Australia where policies and processes for discipline were quite different than those in the U.S. (Hemphill et al., 2014). Further, research indicated that an interaction of race/ethnicity and gender resulted in Black females having rates of involvement in disciplinary procedures that were higher than those for Latino and White males (Losen & Martinez, 2013). Increasingly gender identity has been studied in relationship to school discipline practices (Mallett, 2017; Palmer & Greytak, 2017). While further research

needs to be conducted in this area, results of these studies indicated that gender identity may also be a predictor of involvement in discipline procedures.

Age and Grade Level

While age and grade level were examined as separate variables in the current study, they were reported here in one category due to the standardized way that public schools use age and grade level in the United States. Public schools begin compulsory education in the Kindergarten grade with students who range from 5 to 6 years old (Corsi-Bunker, 2017). Students generally progress from one grade to the next on an annual basis. Grades are grouped into three levels. The elementary level consists of grades 1 through 5 with students ranging from five to 10 years of age. The middle school level is composed of students in grades 6 through 8 with student ages ranging from 11 to 13 years. The high school level is comprised of grades 9 through 12 with students from 14 to 18 years of age. In the United States, students who receive special education services may continue their public-school education until the end of the school year in which they become 22 years old, if they have not received a graduation diploma prior to that time (North Carolina Policies Governing Services for Children with Disabilities, 2014). The study district is a public-school district that conforms to these parameters.

While office referrals and disciplinary suspensions occur at all grade levels, suspension has been documented to be much more prevalent at the secondary level than at the elementary level (USDOE, 2016c). In an examination of nationwide data, Losen, Hodson et al. (2015) indicated that during the 2011-2012 school year students were suspended at the secondary level at a rate that was three to four times that of students at

the elementary level. This study reported an interaction among the student-related characteristics of race/ethnicity and grade level. There was a racial gap between Black and White students that was much wider at the secondary level than at the elementary level (Losen, Hodson et al, 2015). The rate of suspension for Black males at the elementary level was 13.7% while the secondary rate for this group was 33.8%. The rate of suspension for White males at the elementary level was 4.8% and 16.2% at the secondary level. In a related study, Vincent et al. (2012) examined the use of intensive interventions to prevent the occurrence of office discipline referrals and out-of-school suspension. At the elementary level, Black students were disproportionately represented in office discipline referrals and in intensive interventions. At the middle school level, Black students were over-represented in office discipline referrals and were less likely to receive intensive interventions. Students who did receive these interventions exhibited a reduction in office discipline referrals. The researchers determined that access to intensive interventions did not narrow the discipline gap between White and Black students (Vincent, 2012).

In a study of girls across the state of Texas in the 2013-2014 school year, Slate, Gray and Jones (2016) discovered that Black girls at all grade levels received three to seven times more in-school suspension, out-of-school suspension, and disciplinary assignment to alternative school settings as compared to White and Hispanic girls. In their study, Black girls in grades 6 and 9 saw a sharp increase in disciplinary consequences as compared to all other grade levels. The researchers postulated that 6th

and 9th grades were pivotal years since they were years in which significant transitions occur from elementary to middle school and middle to high school.

Multiple studies have indicated that suspension at the middle and high school levels can result in negative school outcomes including decreased academic achievement (Ginsburg, Jordan, & Chang, 2014; Morris & Perry, 2016), lower graduation rates (Balfanz, Byrns, & Fox, 2015; Noltemeyer et al., 2015), and higher dropout rates than students who do not receive any school suspensions (Balfanz et al., 2015; Marchbanks et al., 2014). In studies that examined a national longitudinal database, Shollenberger (2015) and Wolf and Kupchik (2016) discovered that suspension was highly correlated with both negative educational outcomes and juvenile justice outcomes in the long term. Shollenberger (2015) concluded that, among boys who were suspended for 10 total days or more, less than 50% obtained a high school diploma by age 20, more than three quarters had been arrested, and more than one third had been confined to a correctional facility. As determined through self-reports of behavior, a substantial number of youth had not been involved in serious delinquency prior to their first suspension from school. Consistent with the results of Shollenberger (2015), Wolf and Kupchik (2016) found similar levels of incarceration and indicated that suspension also significantly predicted an increased likelihood of criminal victimization by 22% and criminal activity by 31% as compared to those who had never been suspended. Further they noted a greater risk of anxiety, depression, and drug use for those who had experienced school suspension.

In one district of approximately 100,000 students in Kentucky, a longitudinal study was conducted that followed one third-grade cohort of students until graduation,

(Vanderhaar et al., 2015). This study outlined the predictive factors related to disciplinary assignment to an alternative school placement, and any subsequent involvement in the juvenile justice system. Repeated suspension was the greatest predictor of being placed in an alternative school for disciplinary reasons. Other predictive measures included being male, being Black, and having an emotional-behavioral disability. Students who were in 7th and 8th grade had the highest risk of being removed from their regular school setting and being placed in an alternative school setting. Of the total number of students who were in this cohort, nearly 1 in 10 students had at least one disciplinary alternative school placement. 13.1% of the Black student population in the cohort were placed in alternative school placement as compared to 3.8% of White students. The racial disproportionality extended into placements into juvenile justice. When controlling for gender, the odds of an Black student being detained in the juvenile justice system were 1.5 more likely than for White students. Over 52% of students who entered disciplinary alternative school placements at the elementary level and were later detained by juvenile justice. Of those students who entered a disciplinary alternative school placement for the first time, at the middle school level, 43.3% were later detained by juvenile justice, and 24.6% of those who were originally placed in the disciplinary alternative school setting at the high school level, were later detained by juvenile justice. While alternative school placements have been considered innovative ways to work with students who struggle with behavioral and academic deficits, in lieu of suspension or expulsion, this study provides evidence that these settings may be over-populated with minority male students, and students with

emotional disabilities. The outcomes of the study indicated that the success rate of such settings does not appear to be a positive one.

While in school, and in the years following their departure from the school setting, students who have received disciplinary suspensions had consistently higher levels of juvenile delinquency. Using longitudinal national data collected in 2000, of youth from 12-16 years old, Mowen and Brent (2016) concluded that students who received suspension during these years had an increased likelihood of arrest. As the number of suspension increased, the more likely that a student would experience incarceration as compared to their peers who had not been suspended from school.

In their longitudinal investigation of students across the state of Florida from 2000-2008, Balfanz et al. (2015) concluded that “even a single suspension from 9th grade considerably lowers the odds that a student will graduate from high school or enroll in college. Being suspended even once during the ninth-grade year is associated with a two-fold increase in the risk for dropping out” (p. 14). A recent study conducted by Morris and Perry (2016) concluded that school suspension accounted for approximately one-fifth of the difference in school performance between Black and White students.

Age and grade level are closely related due to the structure of school systems in the United States. Current research indicated that, while suspension and other disciplinary actions occurred at the elementary school level, disciplinary procedures including assignment to an alternative school for disciplinary reasons, in-school suspension and out-of-school suspension were much more frequent at the middle and high school levels. Students in grades 6 and 9 received significantly more disciplinary consequences than at

other grade levels. Slate, Gray, and Jones (2016) postulated that the transition years, between elementary and middle school or middle and high school, were times when expectations change for students which resulted in disciplinary correction of behavior. The results of suspension at these grade levels were highly correlated with negative post-school outcomes.

Disability Status

There is a long history, in the United States, of students with disabilities receiving disciplinary exclusion from school at a higher rate than their nondisabled peers (Fabelo et al., 2011; Mellard & Seybert, 1996; Miller & Meyers, 2015; USDOE, 2016c). Most recently, the OCR (USDOE, 2016b) has reported that students with disabilities were more than twice as likely to receive one or more out-of-school suspensions (11%) when compared to their peers without disabilities (5%). This report stated that, while 10% of White males with disabilities received at least one out-of-school suspension, 25% of multiracial, 23% of Black, 23% of Native Hawaiian or other Pacific Islander and 22% of Native American males with disabilities received at least one out-of-school suspension. A national report examining data for the 2011-2012 school year (Losen, Ee et al., 2015) indicated that these patterns of exclusionary discipline of students with disabilities have been present for decades.

Fabelo et al. (2011) conducted a longitudinal statewide study of discipline data for 7th grade public students in Texas. They determined that Black students with disabilities were disproportionately more likely to receive disciplinary removals from school than White students with disabilities. The study revealed that nearly three-quarters of students

who received special education services were expelled at least once. The type of disciplinary consequence differed in relationship to the type of disability. Students who were coded as having emotional disturbance were much more likely to be suspended or expelled as compared to nondisabled students who were nearly demographically identical. Students with autism or mental retardation were much less likely to experience school disciplinary action when compared to demographically similar nondisabled students.

An earlier investigation commissioned by the 1995 Kansas State Board of Education (Mellard & Seybert, 1996) determined that students with disabilities were over-represented in suspension and expulsion across the state of Kansas. Years later a study of students in traditional high schools in the Chicago Public School System, (Miller & Meyers, 2015) analyzed data sets using chi Square statistics and determined that students with disabilities received in-school suspension at a statistically significantly higher rate than students without disabilities. They concluded that while nondisabled students were more likely to receive one out-of-school suspension than their disabled peers, the rate of students with disabilities that received more than one out-of-school suspension (31.6%) was statistically significantly higher than students without disabilities (0.7%) at all high school grade levels. The Miller and Myers (2015) study also revealed that Black students with disabilities were referred to law enforcement at twice the rate that their Black peers without disabilities, and had significantly higher dropout rates. Kirk and Sampson (2013) determined that arrest was a predictor for dropout and a lower

enrollment in 4-year college, even when controlling for socioeconomic status, school factors, and other student factors.

In their longitudinal study of students who had been placed in alternative school settings for disciplinary reasons, in one district of approximately 100,000 students in Kentucky et al. (2015) determined that the disability category of emotional-behavioral disability (EBD) was a predictive factor of disciplinary alternative school placement, and subsequent involvement in the juvenile justice system. The study concluded that other disability categories were not predictive of disciplinary alternative school placement. In their book examining current research in the area of disabilities, Harry and Klinger (2015) presented evidence that Black students were overrepresented in the special education categories of EBD and intellectual disability (ID). The authors postulated that, of the 14 disability categories, these two categories were more subjective than others that were defined more objectively.

A report from the National Council on Disability (2015) reflected that the suspension of students with disabilities may prevent disabled students from obtaining the special education and related services that are designed to reduce behavioral challenges using educational interventions, rather than using punitive measures. Conversely, the report suggested that suspension may be indicative of the student's inability to access appropriate special education services. This report highlighted the complex relationship between the provision of effective specially designed instruction and the use of suspension for students with disabilities.

A study by Cooc (2017) examined whether teachers disproportionately perceived minority students as having a disability. This study used logistic regression analysis to model the relationship between teacher perception of student disability and race. The study controlled for background factors that are relevant for the identification of a disability. The researcher concluded that, while teachers were more likely to perceive Black, Hispanic, and Native American students as having a disability as compared to White students, when school contextual factors were controlled for, minority students were often under-identified as having a disability. These results support the findings of the National Council on Disability (2015) cited above. Anyon et al., 2017 also concluded that Asian American students were consistently less likely to be perceived as having a disability, even when their achievement and behavior were similar to that of other students. Results from both studies indicate the need for policies and practices that focus on using culturally and linguistically appropriate methods for identifying students who may have disabilities.

With respect to students with disabilities, multiple studies have indicated that suspension and other exclusionary discipline procedures have negative effects on academic performance (Belfanz et al., 2015; Perry & Morris, 2014; Vincent et al., 2012). Christiani, Revetti, Young, and Larwin (2015) however, presented conflicting results. Christiani et al. (2015) reported that, when considering the effects of absences on the grade point average (GPA) of students with disabilities there was no significant correlation. Absences due to medical reasons, and other causes such as out-of-school suspension, were considered in relationship to the GPA of students receiving special

education services. The results of this study indicated no direct correlation between school absence and GPA for students with disabilities. Protections for students that were provided by IDEA (USDOE, 2016) through the implementation of an IEP was cited as one possible reason that student GPAs, in this study, were not significantly affected by school absence (Christani et al., 2015).

Emotional-behavioral disability is the one category that has been found to be predictive for disciplinary alternative school placement (Vanderhaar et al., 2015). When combined with other risk factors such as being Black, students with disabilities become increasingly at risk for school disengagement (Cokley et al., 2012), school dropout (Marchbanks, 2014; Noltemeyer et al., 2015), and poor post-school outcomes (Perry & Morris, 2014) such as involvement with the juvenile justice system (Miller & Myers, 2015; Vanderhaar et al., 2015) at a much higher rate than their White peers without disabilities.

Vincent, Sprague et al. (2012) analyzed archival data from the 2009-2010 school year for school districts in the Pacific Northwest. Using chi-square and ANOVA analyses, they determined that students with disabilities were more likely to receive suspension than expulsion. Among students with disabilities, American Indian/Alaska Native students were over-represented in removal to disciplinary alternative education programs. In this study, Black students with and without disabilities lost twice as many days, as White students, to exclusionary practices. ANOVA results indicated that both disability status and race significantly impacted duration of exclusion.

Office Referral and School Suspension

The literature review above outlines what is currently known about each student-related characteristic as they relate to exclusionary practices that include disciplinary office referral, disciplinary alternative school placement, as well as in-school-suspension and out-of-school suspension. Monahan, VanDerhei, Bechtold, and Cauffman (2014) provide additional information on suspension in relationship to arrest. They determined that being suspended increased the likelihood of arrest in the same month as the suspension versus months in which students were in school. The effect was stronger for youth who did not have a history of behavior problems, and when youth associated with less delinquent peers.

Sullivan, Klingbeil, and Van Norman (2013) examined archived data from one suburban school district in mid-west. Using regression analysis, they determined that gender, race, disability, and socioeconomic status were significantly related to the risk of suspension. School variables including demographics, academic performance, and teacher characteristics were not significantly related to risk of suspension. Sullivan et al. (2013) determined that students of low socioeconomic status were more likely to be suspended or expelled.

Butler, Lewis, Moore and Scott (2012) studied factors that increase the likelihood of a student being removed from classroom instruction due to exclusionary discipline. They determined that race was a significant predictor of the length of suspension with Black students receiving longer suspensions than White students. They also discovered that out-of-school suspension was employed more at the elementary than the secondary

level. While this was not an expected result, they hypothesized that over-reliance on out-of-school suspension may be due to elementary schools having fewer alternatives for removing disruptive students. Butler et al. (2012) stated that it is “reasonable to conclude that exclusionary discipline practices in secondary school are just as severe in elementary, particularly for Blacks” (p. 20). They also found that students tied to the offense (offender or participant) were more likely to receive disciplinary consequences than those indirectly linked (acting as an investigator). Finally, they concluded that female students and students in elementary schools were more likely to be reprimanded than to receive exclusionary consequences than their male counterparts, and secondary students.

Research Methodology

Researchers have used multiple types of quantitative approaches to examine the disproportionate involvement of these groups of students in disciplinary procedures. Quantitative approaches vary depending upon the type of data to be analyzed. Due to the nature of the variables analyzed in the study of extant databases that were used to analyze student data, the most common approach for the organization and description of disproportionality data included the use of descriptive statistics. Researchers use descriptive statistics to describe the basic features of the data in the study. Descriptive statistics, in combination with graphing of data are the base of almost every quantitative analysis (Trochim, 2006)

The type of inferential statistics used in research related to student discipline varies depending upon the types of study variables, and the information that is being

sought. One of the most common inferential statistics used in social sciences comes from the family of General Linear Model (Trochim, 2006), more specifically regression analysis. Many of the studies analyzed throughout this literature review used regression analysis (Belfanz et al., 2015; Bryan et al., 2012; Hemphill et al., 2014; Mizel et al., 2016; Ramey, 2015; Skiba et al., 2002; Skiba et al., 2014; Smolkowski et al., 2016; Vanderhaar, 2014; Wolf & Kupchik, 2015). While some researchers have chosen to generate risk ratios to describe how much more likely one group is to be disciplined than another (Brown & Steele, 2015; Shollenberger, 2013), Losen, Hodson et al. (2015, p. 48) caution researchers that the use of risk ratio can be deceptive when analyzing small populations.

A preponderance of quantitative research in this area has been conducted using archival data produced at the local, state, or national level (Losen, 2015). Two common sources of national archival data used in multiple research studies include the Civil Rights Data Collection (CRDC) database (Losen & Gillespie, 2012; Losen, Hodson et al., 2015; Losen et al., 2016), and the National Longitudinal Survey of Youth (Mowen & Brent, 2016; Peguero, 2015; Shollenberger, 2013; Vanderhaar et al., 2015). Archived local school district, and state disaggregated data have commonly been used to analyze discipline trends at the state and local levels (Brown & Steele, 2015; Hemphill et al., 2014; Skiba et al., 2002; Skiba et al., 2014a; Skiba et al., 2014b).

Quantitative researchers who examine disciplinary practices have predominantly investigated the association between student-related characteristics and the risk of involvement in disciplinary procedures (Skiba et al., 2014a; Losen, 2015). These

researchers examined the existence or magnitude of disproportionate discipline for the groups that they study. Most individual-level examinations employ correlational models to identify the strength of the association between risk for involvement in disciplinary procedures and individual predictors. Using regression analysis in addition to the correlational model, allows researchers to further examine the relationship between the predictor and outcome variables (Triola, 2012). While Triola's recommended approach establishes the strength of relationship between factors, it does not directly examine causation. The current study employed a correlational model with regression analysis to examine the possible predictive relationships between student-related characteristics and discipline outcomes.

While patterns of disproportionality have been studied at the national and state levels (Skiba et al., 2014a; Hussey, 2014) a comprehensive examination of disaggregated student discipline data had never previously been performed in the study district. In alignment with multiple studies that examine possible predictive factors associated with school discipline (Brown & Steele, 2015; Hemphill et al., 2014; Skiba et al., 2002; Peguero et al., 2015), the local study employed chi-square and regression analyses to provide the study district with an understanding of the patterns in discipline that may be predictive of disproportionality in office referrals and suspensions.

Qualitative researchers have recently begun to analyze the effects of disciplinary procedures on students (Kennedy-Lewis & Murphy, 2016; Shollenberger, 2013) and to examine the effects of teacher and administrator perceptions in relationship to discipline (DeMatthews, Carey, Olivarez, & Saeedi, 2017; Okonofua & Eberhardt, 2015; Skiba et

al., 2014a; Williams, 2013). Study of disproportionality related to the over-referral of Black students to specific special education categories used qualitative components to determine perceptions of student study teams, as they determine special education placements (Bal, Sullivan, & Harper, 2014). While qualitative research contributes significantly to what is known about exclusionary discipline and its effect on students, an in-depth look at occurrences in the study district using a qualitative approach would not have been appropriate for the current study. Until the trends in discipline data were known for the local district, to determine the predictive relationship between student-related characteristics and number and type of discipline referrals and suspension moving forward to the gathering of in-depth information concerning the subject would not have been appropriate.

Like the state and national studies previously reviewed, the local study examined the possible predictive relationships between the student-related characteristics, of race/ethnicity, gender, age, grade level, and disability status to discipline factors. Unique to this study, specific school location was also studied to determine if any individual school or schools engaged in the use discipline practices that over represent any one group of student characteristics. Student-related characteristics were analyzed in relationship to three different outcome variables that included: total number of discipline referrals, type of discipline referral, and suspension.

Summary and Conclusions

For more than two decades, researchers have concluded that, in schools across the United States, Black male students with disabilities have been involved in exclusionary

discipline practices at a rate that is disproportionate to their representation in the general school population (Fabelo et al., 2011; Losen, Ee et al., 2015; Mellard & Seybert, 1996; Miller & Meyers, 2015; Skiba et al., 2002; Skiba et al., 2014; Toldson et al., 2013). While other factors such as socio-economic level of parents and students have been studied in association with disproportionate representation of students in disciplinary actions, the student-related characteristics that are most commonly associated with exclusionary discipline practices are race/ethnicity, sex, grade level, and disability status. Specifically, Black males with disabilities who attend secondary school are the most likely to receive more frequent, and harsher disciplinary consequences than any other group of students even when controlling for factors related to poverty (Losen & Gillespie, 2012; McFadden et al., 1992; Skiba et al., 2002; Skiba et al., 2014a; Toldson et al., 2013).

Over the past several decades, zero tolerance policies have been implemented in schools across the United States in an effort to improve school safety (Curran, 2016; Curran, 2017; Tseng & Becker, 2016). These policies have led to a greater law enforcement presence in schools. Placement of officers in schools has increased referrals to law enforcement for crimes of a less serious nature (Na & Gottfredson, 2013). Zero tolerance policies have increased the use, and acceptance of exclusionary discipline practices such as in-school suspension, out-of-school suspension, and expulsion of students (Curran, 2016; Curran, 2017; Tseng & Becker, 2016). Over the past decade multiple researchers have determined that exclusionary discipline has been closely associated with negative school outcomes such as decreased academic achievement (Ginsburg et al., 2014; Morris & Perry, 2016), lower graduation rate (Balfanz, Byrns, &

Fox, 2015; Noltemeyer et al., 2015), higher dropout rate (Miller & Myers, 2015), school disengagement (Morris & Perry, 2016), juvenile delinquency (Shollenberger, 2015; Wolf and Kupchik, 2016), and incarceration (Noltemeyer et al., 2015; Shollenberger, 2015; Wolf & Kupchik, 2016). Zero tolerance policies were put into place to reduce violence and to make schools safer, but they may have had the opposite effect (Kang-Brown, Trone, Fratello, & Daftary-Kapur, 2013). Since certain groups are disproportionately involved in exclusionary discipline, it is reasonable to expect that they are more likely to experience the negative school and post-school outcomes.

While it is well known that Black students with disabilities, and other ‘at risk’ groups are over-represented in discipline practices across the nation, a comprehensive examination of disaggregated student discipline data had never previously been performed in one large, suburban, public-school district in the southeastern United States that has been declared by the state as having significant disproportionality in disciplinary actions for Black students with disabilities, based on school discipline data reported for the 2012-2013 school year. To examine the entire scope of disproportionality in this district it was important to examine the possible predictive relationships between student-related characteristics including race/ethnicity, gender, age, grade level, disability status, and school location and discipline factors such as the number of discipline referrals, the type of discipline referrals, and the number and type of suspensions. Disaggregating district discipline in this way allowed the district to identify patterns of discipline that may be related to the phenomena of disproportionality.

An understanding of this data may allow the district to identify any policies and procedures that may be perpetuating disproportionate trends that have been seen in the data. By identifying policies that may be influencing negative trends in the data, new policies and procedures may be put into place to remediate previous negative effects. Further, by determining specific trends in the data that may be predictive of disproportionality, the district may research best practices as they relate to the noted trends. The district may then choose to implement research-based interventions that are intended to reduce the disproportionate trends that have been identified. Research-based interventions have been identified related to many types of disproportionality.

In Chapter 3 I describe the study's research method including the design and rationale. I discuss the instrumentation and operationalization of constructs including a data analysis plan. Threats to validity and ethical procedures are also discussed.

Chapter 3: Research Method

The purpose of this quantitative, nonexperimental, ex post facto study was to identify and understand the trends in data related to the phenomena of disproportionality in disciplinary procedures. In the study district, discipline data were disaggregated by student-related characteristics, including race/ethnicity, gender, age, grade level, disability status, and school location. These data were obtained and analyzed to determine the possible predictive relationship between the number of discipline referrals issued, type of discipline referrals issued, and suspensions. These data are expected to help the district make informed decisions that could lead to solutions.

This chapter describes the study's design and rationale. The methodology is clearly defined through identification of the population, sampling procedures, description of archival data, instrumentation and operationalization of constructs and the data analysis plan. The chapter concludes with a description of the threats to validity, ethical procedures, and a summary of research methods.

Research Design and Rationale

I use data from one suburban, southeastern school district to identify and understand the trends in data related to the phenomenon of disproportionality in disciplinary procedures. To address the problem, I used a non-experimental, ex post facto analysis. Archival discipline data from the 2015-2016 school year were used. Data were disaggregated by the student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location (the predictor variables). The outcome

variables studied included the number of discipline referrals issued, type of discipline referrals issued, and suspensions.

The use of a quantitative correlational ex post facto design allowed me to analyze possible predictive relationships between predictor and outcome variables without directly experimenting on a protected population (Simon & Goes, 2013). This design allowed the examination of data that the district had collected in the regular course of business by identifying groups that were already different in some respect, in this case, students who received disciplinary referrals for behavioral infractions. I then searched the archival data for the factors that could be correlated with those differences (Simon & Goes, 2013), such as student-related characteristics. The following research questions were used to guide the study:

1. RQ1: What are the predictive relationships between student-related characteristics (race/ethnicity, gender, age, grade level, disability status, and school location) and the total number of discipline referrals?

H0: No student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to the total number of discipline referrals.

H1: One or more of the student-related characteristics (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to the total number of discipline referrals.

2. RQ2: What are the predictive relationships between student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location with type of discipline referrals?

H0: No student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to type of discipline referrals.

H1: One or more of the student-related characteristics (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to type of discipline referrals.

3. RQ3: What are the predictive relationships between student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location with suspensions?

H0: No student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to suspensions.

H1: One or more of the student-related characteristics (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to suspensions.

The quantitative research design used advanced the knowledge of the educational leadership in multiple ways. First, the district administrators benefited from this study by understanding which student-related characteristics were predictive of disciplinary infractions, thereby allowing them to make data-based decisions to improve discipline

policies and practices in the district. Second, the findings of the study provided school leaders with an understanding of the patterns in discipline that may be related to disproportionality in office referrals and suspensions of the identified groups that were disproportionately disciplined. This information could aid the school district in implementing interventions that may decrease the disproportionate referral and suspension of students thereby allowing the students greater access to the educational setting. Third, by understanding the data that were highly related to disproportionality district leaders may choose to continually analyze district data to determine the effect of policy and procedural changes on a yearly basis. Finally, the data collection and analysis in this study addressed a gap in current research by providing information on the extent to which student-related characteristics are predictively related to discipline referrals, type of discipline referral, and suspension.

Methodology

Population

The archival data used in this study were obtained from a convenience sample of school discipline data collected during the 2015-2016 school year. The population included all students in a suburban K-12 public-school district with a total population of approximately 32,000 students, in the southeastern United States who received at least one discipline referral during the 2015-2016 school year (August 2015-June 2016). All discipline referrals received and investigated by administrators at each of 38 school sites was obtained for analysis. For the purposes of this study the discipline referrals were assumed to be representative of student behavior problems that rise to the level of

needing intervention by school administrators, as they were collected in the school discipline reporting system consistent with school district policy. Students in the preschool setting were excluded due to the range of settings in which they were served, and since preschool attendance is not mandatory for students from 3 years old to 5 years old. The data were assumed to be a valid representation of school disciplinary procedures, as the staff members who made the referrals had no knowledge that the data would be analyzed outside of traditional school use of the data. It is also assumed that the data were complete and accurate as they were the data that were verified at the local level and reported routinely to the state on an annual basis.

Archival Data

The data set for this research included archived school discipline data collected during the 2015-2016 school year (August 2015-June 2016) in a suburban K-12 public-school district in the southeastern United States. The data set included de-identified discipline data for all students who received at least one discipline referral that resulted in a disciplinary consequence in the school year. There was a total of 5523 students who met this criterion, in a district with a total population of approximately 32,000 students. Since archival discipline data were used, the parameters of the data could not exceed the information that was contained in the current data collection system. The data collected in the school database (PowerSchool, 2016) included student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location as well as discipline information including total number of discipline referrals, type of discipline referral, and suspension data.

An informal agreement between the selected district and me was obtained via email prior to designing the research (Appendix A). A written request for access to the school district's discipline data were sent to the selected school district after Walden University Institutional Review Board (IRB) approval was obtained (04-13-17-0495678, April 13, 2017). School accountability officials extracted the data from the school's extant data collection system and downloaded it into an Excel spreadsheet. Accountability officials in the district ensured that all personally indefinable information was expunged from the data prior to being distributed to me.

Data provided to me included information for all students enrolled in Kindergarten through 12th grade in the study district between August 2015 and June 2016 for whom at least one behavioral office referral has been recorded. Students in the preschool setting had been excluded due to the range of settings in which they were served, and since preschool attendance is not mandatory for students from three years old to five years old. The use of archival data allowed me to obtain a data set that had been verified as accurate by the school district. The data reporting system that was used by the district to collect the data was the same system that was used by the state to collect and report state-level data to the federal government and is therefore considered valid and accurate (PowerSchool, 2016).

Instrumentation and Operationalization of Constructs

Existing school discipline data were collected from the study district's extant data-collection system for all students in the district who received at least one disciplinary office referral during the 2015-2016 school year and included the disposition

of those referrals. Data included office discipline referrals that occurred during the school year including the reason for referral, and the resulting disciplinary action. The data-collection system included the student-related characteristics of race/ethnicity, gender, grade level, age, disability status, and school location for each disciplinary occurrence.

When a formal discipline referral was made to school administrators in each school building (elementary, middle, and high), the administrators filled out a standard form in the digital data-collection system. The form included information about the date and nature of the incident, and the action taken by the administrator. Other data collected included student-related characteristics, reason for referral, and the reason for student absences.

The data that were transferred from the district's data-collection system was based on each disciplinary infraction as the unit of analysis. For this investigation, the data were aggregated so that the student became the unit of analysis. For the categorical variables of race/ethnicity, grade level, disability status, and school location, chi-square tests for independence were used to determine how likely the observed frequencies of the events being analyzed were due to chance. A chi-square analysis was appropriate to use since the predictor and outcome variables being analyzed were mutually exclusive categorical data. In addition, logistic regression analysis was used for outcome variables that were categorical in nature such as age, type of referral and suspension. Linear regression was used for outcome variables that were continuous such as number of referrals (Triola, 2012). Regression analyses were used to determine the specific nature of the relationships

between the predictor variables and the outcome variables. These analyses identified where disproportionality was occurring with respect to each variable.

The predictor variables in this study included race/ethnicity, gender, age, grade level, disability status, and school location. The following is a breakdown of how each predictor variable was identified. Race/ethnicity was recorded in 7 categories including: Asian/ Pacific Islander, White, Black/Black, Native American/Alaskan, Native Hawaiian, and Two or more. Ethnicity was recorded as Hispanic (yes/no). Gender was recorded as male or female. Age was reported in whole numbers from 5-22. Grade level was coded KG for Kindergarten and then numerically for the year of school thereafter. Grade level data were grouped into three levels: Elementary (KI- 5), Middle (6-8) and High (8-15). Disability status was reported as yes (a student was identified as having a disability) or no (the student was not identified as having a disability). For the purposes of this study, a disability was defined as a student receiving services through Section 504 or IDEA. School location was coded using individual school codes.

Outcome variables included the total number of discipline referrals in the school year, the type of discipline referrals were coded numerically into one of 102 offense types, and suspension. In the data collection system, there were 40 separate codes for the disposition (consequence) of each office referral. To answer the third study question there were four codes used for suspension: 002 In-School suspension, 003 Out-of-School suspension, 004 Out-of-School suspension remainder of year, and 005 Out-of-School suspension 365 days.

Data Analysis Plan

I used IBM SPSS Version 23.0 to analyze the study data. Prior to receiving district-level data, the district's accountability staff removed all personally identifiable student information. Since all data in the data-reporting system were submitted to the state on an annual basis, the data have been verified for accuracy prior to submission to the state and distribution for study purposes.

I performed Chi-square tests for independence to determine how likely the observed frequencies between each student-related characteristic and each outcome variable were due to chance. In addition, I used logistic regression analyses for outcome variables that were categorical in nature such as type of and suspension. Linear regression was used for outcome variables that were continuous such as number of referrals (Triola, 2012). Regression analyses were used to determine the predictive nature of the relationships between the predictor variables and the outcome variables. Table 1 displays the variables in this study. Outcome variables are listed across the top row and predictor variables are listed in the column at the left.

Table 1

Table of Variables Analyzed

	Total Number of Discipline Referrals (<i>N</i> = 14,660)	Type of Discipline Referral (Categorical)	Suspension (Categorical)		
			ISS	OSS	None
Race/ Ethnicity		Refer to Tables 5-8 for analysis			
Asian/Pacific Isl.	55		11	10	60
White	2465		1656	1208	3170
Black/African American	1781		1420	1438	2682
Native American/ Alaskan	27		21	10	32
Hawaiian	0		0	0	0
Two or more	285		213	156	369
Hispanic	910		709	468	1027
Gender					
Male	3947		3109	2540	5591
Female	1576		921	750	1749
Age					
4-7	1416		93	353	1132
8-10	896		226	418	1544
11-13	1732		1580	887	2601
14-16	1645		1540	1201	1684
17-22	636		591	431	379
Grade Level					
Elementary	1667		356	869	2876
Middle	1873		1966	945	3031
High	1945		1708	1370	1430
Behavioral Alternative (middle/ High)	38		0	106	3
Disability status					
Non- Disabled	4688		3290	2458	5794
Disabled	835		740	832	1546
School location (school code number)	See post chi- square post hoc analysis	See post chi- square post hoc analysis	See post chi-square post hoc analysis		

To answer the first research question concerning the predictive relationship between student-related characteristics and the total number of discipline referrals, a linear regression model was used. A linear regression model is used when we want to predict the value of a variable based on the value of two or more other variables (Triola, 2012). When exploring the predictive relationships between student-related characteristics and type of referral and suspension, in research questions two and three, multiple logistic regression was used. Multiple logistic regression is used when the outcome variable is categorical and there are multiple predictor variables (Triola, 2012).

Threats to Validity

There were multiple threats to the validity and reliability of school discipline data. The school discipline data reported were those behavioral violations of the school code of conduct that were reported to school administrators. Some behaviors that violate the school code of conduct may go unreported by school staff. Minor violations of the school code of conduct may be handled by school personnel and never reported to school administrators. In other cases, school administrators may conduct investigations of office referrals and may not choose to issue consequences for student misbehavior. Since school administrators are the individuals who ultimately assigned consequences and recorded the disciplinary dispositions in the data-reporting system, differences in school administrators' attitudes toward discipline policy were assumed to have an impact on the data (Findlay, 2015).

Another threat to the reliability and validity of school discipline data lies in the variability in how different schools define and employ office discipline referrals.

Variability may occur between and among school staff depending upon staff attitudes toward discipline policy, student behaviors, and training (Smolkowski, Girvan, McIntosh, Nese, & Horner, 2016). These factors were assumed to have an uncontrollable impact on the data. Even given this impact, the data were assumed to represent the true nature of the discipline practices in the school.

School-related factors have been found to have an impact on student discipline (Martinez, McMahan, & Treger, 2016). These factors include school climate, racial/ethnic concentration, and student to teacher ratio. In this study, the aforementioned threats to validity and reliability of discipline data could not be controlled by me due to the use of archival data analysis.

Ethical Procedures

The IRB process included the completion of an approved proposal and submission of an application to the IRB for approval. Upon IRB board approval, I obtained a data use agreement from the school district being studied. This agreement was in lieu of obtaining informed consent from individual participants, as the data sought were archival in nature, and were de-identified as to protect the confidentiality of individual students and their schools.

Prior to my receiving the data, the school system's accountability team removed all personally identifiable data. Through this process, stakeholder information was protected. I have referred to the school district only in generalities so that the anonymity of the district was protected. The data have been stored electronically and password protected so that it is not accessible to anyone outside of the research project. The data

will be destroyed five years after the study is completed. Study results have been shared with school district administrators upon completion of the study.

I am a district level, departmental administrator in the study district, but have no supervisory responsibilities for administrators in the school setting, and am not responsible for data collection, or the implementation of any disciplinary procedures in the district. I do not have direct contact with students included in the disciplinary proceedings.

Summary

This quantitative nonexperimental, ex post facto analysis was designed to identify and understand the possible predictive relationships between student-related characteristics and discipline factors in order to better understand the phenomena of disproportionality in disciplinary procedures. This research was unique for this setting because a comprehensive analysis of disaggregated discipline data had previously never been performed. The results from this study have been provided to the study district to improve the district leader's understanding of the patterns in discipline that may be related to disproportionality in office referrals and suspensions.

The results of the data analysis are presented in Chapter 4.

Chapter 4: Reflections and Conclusions

The purpose of this study was to identify and understand the possible predictive relationships between (a) the predictor variables, referred to in this study as student-related characteristics, including race/ethnicity, gender, age, grade level, disability status and school location, and (b) three outcome variables, which included total number of referrals, type of discipline referrals, and suspensions. This research was unique because, in this setting, a comprehensive analysis of disaggregated discipline data not been performed. The results from this study provided the study district with an understanding of the patterns in discipline that could be related to disproportionality in office referrals and suspensions.

Using quantitative methodology, this study investigated the predictive relationship between student-related characteristics and discipline outcomes. There were three research questions that guided the research.

1. What are the predictive relationships between student-related characteristics (race/ethnicity, gender, age, grade level, disability status, and school location) and the total number of discipline referrals?

H0: No student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to the total number of discipline referrals.

H1: One or more of the student-related characteristics (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to the total number of discipline referrals.

2. What are the predictive relationships between student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location with type of discipline referrals?

H0: No student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to type of discipline referrals.

H1: One or more of the student-related characteristics (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to type of discipline referrals.

3. What are the predictive relationships between student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location with suspensions?

H0: No student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to suspensions.

H1: One or more of the student-related characteristics (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to suspensions.

Chapter 4 includes a description of the data collection procedures, results from the chi-square as well as linear regression (RQ1), and multiple logistic regression analyses (RQ2, RQ3), and a thorough analysis of the data collected. Results from each analysis are

discussed in relationship to the research question examined. A final summary of the results is provided at the end of the chapter.

Data Collection

The data set for this research included archived school discipline data collected during the 2015-2016 school year (August 2015-June 2016) in a suburban K-12 public-school district in the southeastern United States with a total population of approximately 32,000 students. Upon approval from Walden University's IRB (32017) an official request was made to the study school district's Accountability Department to obtain and analyze the data. The data set was obtained from the study district in the Spring of 2017.

I was employed by the school district where the data were collected. In my job, I was not responsible for the collection of discipline data and had no capacity to discipline students, or supervise school administrators. The data were collected by school administrators and reported to the district using Powerschool (2016), the state's designated data collection system. The data provided by the district included de-identified discipline data for all students who received at least one discipline referral that resulted in a disciplinary consequence in the designated school year. The data included all information requested. There were no discrepancies from the data collection plan as described in Chapter 3.

The population is defined as the complete collection of all individuals to be studied (Triola, 2012). The population for this study included all students in grades K-12 in the public-school district during the 2015-2016 school year who received at least one office discipline referral. While the total student population of the district was

approximately 32,000, the population for this study included the 5523 students who received at least one office discipline referral during the 2015-2016 school year. Since some students received multiple office discipline referrals during the school year, the data set included a total of 14,660 office referrals.

The study involved all K-12 schools in the district. The district had a total of 37 schools, elementary through high school. Of the 37 schools in the district, 19 were elementary schools, 8 were middle schools, 9 were high schools and 1 was a behavioral alternative school for students in middle or high school. The aim of this study was to identify the possible predictive relationships between student-related characteristics and discipline outcomes for students. The results of data analysis were presented to address the research questions in this study.

Data Analysis and Results

Prior to analyzing data, it was important to determine the level of significance at which the null hypothesis would be rejected. In the social sciences, the most commonly used level of statistical significance is .05, or 5% (Triola, 2012). The level of significance for this study was therefore set at .05. Data received for analysis was coded for ease of analysis. The process of coding allowed all data to be converted from nominal information into non-continuous numeric data.

For the purposes of this study the quantitative techniques used to analyze the data included chi-square tests for independence, linear regression (RQ1), and multiple logistic regression (RQ 2, RQ 3). The chi-square tests for independence were used to determine how likely the observed frequencies between each student-related characteristic and each

outcome variable were due to chance. In addition to the initial chi-square tests, logistic regression analysis was used for the outcome variables that were categorical in nature (Triola, 2012). These variables included type of discipline referral and suspension. Linear regression was used to examine the continuous outcome variable (Triola, 2012) number of referrals.

RQ1. *What are the predictive relationships between student-related characteristics (race/ethnicity, gender, age, grade level, disability status, and school location) and the total number of discipline referrals?* To investigate this relationship a chi-square test was conducted to evaluate which student-related characteristics had a statistically significant relationship to the total number of discipline referrals. The sample for this analysis consisted of all students referred to the office for disciplinary infractions at least once during the school year ($N = 5523$). For the purpose of analysis, referrals per year were separated into two categories 1-10 referrals per year and 11 or greater referrals per year.

When considering the variable of gender (0 = male, 1 = female) there was a statistically significant relationship between gender and the total number of referrals per year Pearson $\chi^2 (1, N = 5523) = 13.770, p = <.001$. Examination of the crosstabulation indicated that males were more likely than females to receive office discipline referrals in both categories 1-10 referrals per year, and greater than 11 referrals per year.

An examination of race/ethnicity indicated that there was strong evidence of a relationship between race and the total number of disciplinary office referrals per year Pearson $\chi^2 (1, N = 5523) = 11.297, p = .023$. White and Hispanic students received

referrals of 1-10 days more than would be expected by random chance. Black students received 11 or more referrals at a higher rate than the expected rate.

An examination of the relationship between student age and the number of referrals per year also proved to be statistically significant Pearson $\chi^2 (4, N = 5523) = 27.445, p = <.001$. Students in the age ranges of 8-10 and 17-22 years old received 1-10 referrals per year at a higher rate than would be attributed to chance. Students in the 11-13-year-old range received 11 or more referrals at a higher rate than would be expected, and a lower rate of referrals in the 1-10 per year range than expected.

Grade level (elementary, middle, high, and behavioral alternative- middle/high school) was determined to have a statistically significant relationship to the total number of referrals Pearson $\chi^2 (3, N = 5523) = 58.897, p = <.001$. Students at the elementary and high school levels received 1-10 total days of referral at a rate higher than expected, and 11 or more referrals at a rate lower than expected. Middle school students, conversely received 11 or more referrals per year at a higher rate than expected, and 1-10 total referrals at a rate lower than expected. Students at the behavioral alternative school received both categories of referrals at the expected rate. Since the referrals at the alternative school were close to the expected rates during the chi-square analysis, and the total number of referrals at the alternative school produced a small sample, for the purposes of the regression analysis, the alternative school referrals were divided into middle and high school categories, per the students' reported grade levels.

Disability status was also found to have a statistically significant relationship to total number of discipline referrals Pearson $\chi^2 (1) = 58.927, p = <.001$. Nondisabled

students had 1-10 referrals at a rate higher than expected, and 11 or more referrals at a lower rate than can be attributed to chance. Students with disabilities received 1-10 referrals per year as well as 11 or more referrals at a rate that was higher than would be attributed to chance.

An analysis was performed to determine if there was a statistically significant relationship between the number of discipline referrals and school location. Due to the high number of school locations and small number of referrals in many of the schools, chi square analysis indicated that 31.1% of all cells had an expected count less than 5 which indicated that there was a statistical violation therefore the Likelihood Ratio (LR) was used to analyze the possible relationship. School location was determined to have a statistically significant relationship to number of referrals $LR(36, N = 5523) = 153.711, p = <.001$. Three school locations exceeded 395 students who received a total of 1-10 referrals per year. One of these three locations also had the greatest number of students referred 11 or more times. The school location with the greatest number of referrals ($N = 499$) was a middle school. This middle school was the only school in the district that reported students with total number of office referrals per student of 24, 26, 30, 32, 34, 41 and 49. The other two schools that reported 400 or more referrals in the school year were high schools. All other schools reported 300 or fewer referrals per year.

Chi-square analyses revealed that the total number of referrals per year had statistically significant relationships with the predictor variables of gender, age, race/ethnicity, grade level, disability status and school location. To determine if there were predictive relationships among the statistically significant predictor variables and

the outcome variable a linear regression analysis was performed. Prior to running the linear regression analysis, a Pearson Bivariate Correlation was run to determine if there was a linear relationship between the outcome variable and each predictor variable. The results can be seen in Table 2. Since there was no linear relationship between school location, age or ethnicity and the outcome variable, a linear regression analysis could not be performed for these variables.

Table 2

Relationship Between Outcome and Predictor Variables

		Grade Level	Gender	Disability Status
Referrals per year	Pearson Correlation	-.029*	-.050**	.103**
	Sig. (2-tailed)	.030	.000	.000
	N	5523	5523	5523

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

The results of the linear regression analysis are listed in Table 3. The analysis indicated that disability status and gender were statistically significant predictors of number of referrals per year, while grade level was not a statistically significant predictor of the outcome variable. More specifically, being female was negatively associated with the number of referrals per year received. Thus, it may be interpreted that males were more likely to experience higher numbers of disciplinary office referrals per year than were females. Disability status was also positively related to number of discipline referrals per year. Students with disabilities were more likely to experience higher numbers of discipline referrals per year than nondisabled students, holding all other variables constant.

Table 3

Number of Discipline Referrals Per Year- Significant Predictors

Variables	B	SE	t	Sig.	95% CI for B
Grade Level	-.003	.003	-1.139	.255	(-.009, .002)
Gender	-.015	.005	-2.976	.003	(-.025, -.005)
Disability Status	.047	.007	7.282	.000	(.035, .060)

Note. Dependent Variable: Referrals per year

According to this model, both disability and gender were predictors of number of discipline referrals. Since both disability status and gender were found to be predictive of total number of discipline referrals, the null hypothesis stating that ‘no student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to the total number of discipline referrals ‘was rejected.

RQ2. *What are the predictive relationships between student-related characteristics (race/ethnicity, gender, age, grade level, disability status, and school location) and type of discipline referral?* To determine the existence of relationships between student related characteristics and type of discipline referral, chi-square tests were conducted for each predictor variable in relationship to the outcome variable. Examination of race/ethnicity indicated that there was strong evidence of a relationship between race/ethnicity and the total number of disciplinary office referrals per year $\text{Pearson } \chi^2 (24, N = 14660) = 261.081, p = <.001$. Analysis of the crosstab indicated that White students were cited for cell phone use, harassment, truancy, and other school-defined offense at a higher rate than would be attributed to chance. Black students were cited for assault, theft, harassment, inappropriate behavior and possession/ use of drugs, alcohol, and tobacco at a higher than expected rate. Hispanic students were cited for cell

phone use, truancy, and late to class at higher than expected rates. Students in all other ethnicities categories were cited at higher than expected rates for late to class, inappropriate behavior, and other school determined offences.

Gender was found to have a statistically significant relationship to type of discipline referral Pearson χ^2 (8, $N = 14660$) = 234.653, $p = <.001$. Males were cited for assault, inappropriate behavior, and possession/ use of drugs, alcohol, tobacco at higher rates than expected. Females were cited for theft, cell phone use, harassment, truancy, late to class and other school defined offences at a higher rate than expected.

The chi-square analysis revealed that there was a statistically significant relationship between age and type of discipline referral Pearson χ^2 (32, $N = 14660$) = 3572.240, $p = <.001$. Analysis of the crosstabulation indicated that students from 4-7 years of age were cited for theft, and inappropriate behavior at a rate that exceeded the expected rate. Students in the 8-10-year-old range were cited for assault, theft, harassment, and inappropriate behavior at a higher rate than expected. Students between 11 and 13 years of age were cited at higher than expected rates for assault, late to class, inappropriate behavior, and possession/use of drugs, alcohol, tobacco. Fourteen to 16-year-old students were cited for cell phone use, other school determined offense, truancy, late to class, and possession/use of drugs, alcohol, tobacco and higher rates than expected. Students in the 17-22-year-old range received referrals at higher than expected rates for cell phone use, other school determined offense, and possession/use of drugs, alcohol, tobacco.

Grade level was also found to have a statistically significant relationship to type of discipline referral Pearson χ^2 (24, $N = 14660$) = 4048.143, $p = <.001$. Students at the elementary grade level received disciplinary referrals for theft, harassment, and inappropriate behavior at rates that were greater than expected. Middle school students were referred for assault, late to class, inappropriate behavior, and possession/use of drugs, alcohol, tobacco. High school students were cited for cell phone use, other school determine offense, truancy, and possession/use of drugs, alcohol, tobacco at rates higher than expected. The alternative behavioral middle-high school had higher than expected rates of assault, and possession/use of drugs, alcohol, tobacco.

There was a statistically significant relationship between disability status and the type of discipline referral received Pearson χ^2 (8, $N = 14660$) = 199.089, $p = <.001$. Nondisabled students received office discipline referrals for theft, cell phone use, other school-determined offense, truancy, and late to class at higher rates than can be attributed to chance. Students with disabilities were cited for assault, harassment, inappropriate behavior, and possession/use of drugs, alcohol, tobacco at higher than expected rates.

School location was also found to have a statistically significant relationship to type of discipline referral Pearson χ^2 (288, $N = 14660$) = 8101.68, $p = <.001$. The post hoc analysis of the crosstabulation indicated that school location may provide the study district with important information about the types of referrals made at each school. Of the 37 school locations, two locations had no discipline referral type that was used at a higher rate than expected. Both of these school locations were elementary schools. Fifteen schools had one or two categories of discipline referral that were used at higher

rates than expected. Eleven school locations had three categories of referral that contained more referrals than would be expected by chance. Five schools had four categories of referral that had more than the expected count, and three schools had five categories of referral that had more referrals than expected.

Multiple logistic regression analysis was used to determine the predictive nature between student-related characteristics and type of discipline referral. Prior to conducting the multiple logistic regression analysis, it was necessary to determine if there was a normal distribution between the predictor and outcome variables (Triola, 2012). Any variable that did not exhibit a relatively normal distribution was not entered into the regression analysis, as these data violate assumptions of multiple logistic regression analysis and skew the outcome of the analysis (Triola, 2012). An examination of normality was conducted through the examination of histograms and visual inspection of normal Q-Q plots for each predictor variable (student-related characteristic) in relationship to the outcome variable (type of discipline referral). Due to non-normal distribution, school location was excluded from the multiple logistic regression analysis. All other student-related characteristics exhibited relatively normal distributions and were therefore included in the analysis.

The results from the regression analyses for each predictor variable are reflected in Tables 4-7. Data analysis indicated that race/ethnicity, grade level, gender, disability status, and age group are all predictors of type of discipline offense. Since race/ethnicity, grade level, age group, disability status, and gender were found to be predictive of the type of discipline referral, the null hypothesis that states ‘no student-related characteristic

(race/ethnicity, gender, age, grade level, disability status, school location) is significantly predictively related to type of discipline referrals' was rejected.

Gender was a predictor for seven referral categories including assault, theft, cell phone use, truancy, late-to-class, inappropriate behavior, and possession/use of drugs, alcohol, or tobacco (see Table 4). Males were less likely than females to be cited for cell phone use and truancy as compared to other school-defined offences. Males were more likely than females to receive referrals for inappropriate behavior, assault, or possession/use of drugs, alcohol, or tobacco as compared to other school-defined offenses.

Table 4

Type of Discipline Offense- Gender

Offense Type	B	SE	Wald	df	Sig.	Exp (B)	95%CI
Assault							
Intercept	-1.996	.239	69.860	1	.000		
Male	.311	.121	6.630	1	.010	1.365	(1.007,1.731)
Theft							
Intercept	-2.441	.298	67.293	1	.000		
Male	.277	.134	4.280	1	.039	.758	(.583, .986)
Cell Phone Use							
Intercept	.786	.232	11.429	1	.001		
Male	-.444	.116	14.754	1	.000	.641	(.551, .084)
Truancy							
Intercept	.375	.183	4.174	1	.041		
Male	-.423	.098	18.708	1	.000	.655	(.540, .793)
Late to class							
Intercept	-1.202	.217	30.768	1	.000		
Male	-.350	.106	10.999	1	.001	.705	(.573, .867)
Inappropriate Behavior							
Intercept	-.300	.145	4.254	1	.039		
Male	-.349	.074	22.104	1	.000	1.418	(1.226, 1.640)
Possession/Use Drugs, Alcohol, Tobacco							
Intercept	.430	.142	9.247	1	.002		
Male	.187	.077	5.801	1	.016	1.205	(1.035, 1.403)

Note. Reference category is: other school-defined offense. Student related characteristic reference categories are: female, disabled, 17-22-year-old, White, and high school. Categories deleted if non-significant (Sig.>.05).

The analysis included in Table 5 indicated that grade level was a predictor for seven referral categories including assault, theft, cell phone use, harassment, late to class, inappropriate behavior, and possession/use of drugs, alcohol or tobacco. Elementary and middle school students were more likely than high school students to receive referrals for assault, harassment, and inappropriate behavior as compared to other school-defined offense. Middle school students were also more likely than high school students to be

referred for possession/ use of drugs, alcohol, or tobacco, and late to class. Elementary students were less likely than high school students to be referred for theft. Middle school students were less likely than high school students to receive an office discipline referral for cell phone use.

Table 5

Type of Discipline Offense- Grade Level

Offense Type	B	SE	Wald	df	Sig.	Exp (B)	95%CI
Assault							
Intercept	-1.996	.239	69.860	1	.000		
Elementary	.989	.486	4.147	1	.000	2.690	(1.038, 6.972)
Middle	.658	.228	8.346	1	.004	1.931	(1.236, 3.017)
Theft							
Intercept	-2.441	.298	67.293	1	.000		
Elementary	-2.042	.311	43.138	1	.000	.130	(.071, .239)
Middle	1.115	.313	12.716	1	.000	3.050	(1.652, 5.639)
Cell Phone Use							
Intercept	.786	.232	11.429	1	.001		
Middle	-.541	.259	4.254	1	.037	.582	(.351, .968)
Harassment							
Intercept	-1.774	.259	46.811	1	.000		
Elementary	2.774	.463	35.846	1	.000	16.015	(6.460, 39.704)
Middle	.896	.239	14.053	1	.000	2.450	(1.534, 3.915)
Late to class							
Intercept	-1.202	.217	30.768	1	.000		
Middle	2.686	.189	202.559	1	.000	14.667	(10.133, 21.231)
Inappropriate Behavior							
Intercept	-.300	.145	4.254	1	.039		
Elementary	2.755	.364	57.226	1	.000	15.728	(7.702, 32.116)
Middle	1.578	.145	119.184	1	.000	4.846	(3.651, 6.434)
Possession/Use Drugs, Alcohol, Tobacco							
Intercept	.430	.142	9.247	1	.002		
Middle	1.083	.148	53.797	1	.000	2.955	(2.212, 3.947)

Note. Reference category is other school-defined offense. Student related characteristic reference categories are: female, disabled, 17-22-year-old, White, and high school. Categories deleted if non-significant (Sig.>.05).

Table 6

Type of Discipline Offense- Disability Status

Offense Type	B	SE	Wald	df	Sig.	Exp(B)	95%CI
Assault							
Intercept	-1.996	.239	69.860	1	.000		
Nondisabled	-.451	.128	12.485	1	.000	.637	(.496, .818)
Harassment							
Intercept	1.774	.259	56.811	1	.001		
Nondisabled	-.287	.141	4.124	1	.042	.751	(.568, .990)
Inappropriate Behavior							
Intercept	-.300	.145	4.254	1	.039		
Nondisabled	-.351	.088	15.949	1	.000	.704	(.593, .836)
Possession/Use Drugs, Alcohol, Tobacco							
Intercept	.430	.142	9.247	1	.002		
Nondisabled	.350	.092	14.466	1	.000	.704	(.588, .844)

Note. Reference category is other school-defined offense. Student related characteristic reference categories are: female, disabled, 17-22-year-old, White, and high school. Categories deleted if non-significant (Sig.>.05).

Disability status was a predictor for the referral categories of assault, harassment, and inappropriate behavior (Table 6). Nondisabled students are less likely than students with disabilities to receive office referrals for the categories of assault, harassment and inappropriate behavior as compared to other school-defined offenses. Nondisabled students are more likely than disabled students to possess or use drugs, alcohol or tobacco as compared to other school-defined offenses.

Table 7

Type of Discipline Offense- Age Group

Offense Type	B	SE	Wald	df	Sig.	Exp(B)	95%CI
Assault							
Intercept	-1.996	.239	69.860	1	.000		
11-13	.654	.291	4.607	1	.032	1.867	(1.056,3.303)
14-16	.460	.192	5.734	1	.017	1.584	(1.087,2.308)
Cell Phone Use							
Intercept	.786	.232	11.429	1	.001		
8-10	2.621	.764	11.775	1	.001	.073	(.016, .325)
14-16	.472	.141	11.181	1	.001	1.603	(1.216, 2.114)
Harassment							
Intercept	1.774	.259	56.811	1	.001		
4-7	-1.400	.549	6.510	1	.011	.247	(.084, .723)
14-16	.476	.215	4.885	1	.027	1.610	(1.055, 2.456)
Truancy							
Intercept	.375	.183	4.174	1	.041		
11-13	-1.396	.242	33.365	1	.000	.248	(.154, .398)
14-16	-.404	.111	13.391	1	.000	.667	(.537, .829)
Late to class							
Intercept	-1.202	.217	30.768	1	.000		
11-13	-1.195	.247	23.383	1	.000	.303	(.186, .491)
Inappropriate Behavior							
Intercept	-.300	.145	4.254	1	.039		
11-13	-.509	.180	8.015	1	.005	1.664	(1.170, 2.368)
14-16	-.723	.111	42.722	1	.000	2.060	(.537, .829)
Possession/Use Drugs, Alcohol, Tobacco							
Intercept	.430	.142	9.247	1	.002		
8-10	-.999	.408	5.989	1	.014	.368	(.165, .820)
11-13	-.429	.178	5.850	1	.016	.651	(.460, .922)

Note. Reference category is other school-defined offense. Student related characteristic reference categories are: female, disabled, 17-22-year-old, White, and high school. Categories deleted if non-significant (Sig.>.05).

The results in Table 7 indicate that age was a statistically significant predictor for type of discipline offense. All age groups, except the 17-22-year-old group, were related to at least one type of discipline offense. The 4-7-year-old group was only significantly

related to one outcome category while all other groups from 8-16-year-old were significantly related to multiple discipline offense groups.

The 11-13-year-old and 14-16-year age groups had statistically significant relationships to office discipline types. Each of these groups were represented in 5 categories of offense. As compared to 17-22-year-old students, students in the 11-13-year-old group are less likely to be referred for truancy, late to class and possession/ use of drugs, alcohol or tobacco. The 11-13-year-old group is more likely to be referred for inappropriate behavior and assault than 17-22-year-old students. Students in the 4-7-year-old group were predictive for the referral category of harassment. Students 14-16-year-old were more likely than 17-22-year-old students to be referred for assault, harassment, and cell phone use than other school-defined offenses. The group of 17-22-year-old students were more likely than any other group to be referred for truancy, late to class and possession/use of alcohol, tobacco, or drugs.

Table 8

<i>Type of Discipline Offense- Race/Ethnicity</i>							
Offense Type	B	SE	Wald	df	Sig.	Exp(B)	95%CI
Assault							
Intercept	-1.996	.239	69.860	1	.000		
Black	.892	.116	59.282	1	.000	2.441	(1.945,3.063)
Theft							
Intercept	-2.441	.298	67.293	1	.000		
Black	.413	.137	9.031	1	.003	1.511	(1.154, 1.978)
Cell Phone Use							
Intercept	.786	.232	11.429	1	.001		
Hispanic	.329	.152	4.678	1	.031	.720	(.535, .970)
Harassment							
Intercept	1.774	.259	56.811	1	.001		
Black	.244	.123	3.940	1	.047	1.276	(1.003, 1.623)
Hispanic	-.561	.178	9.926	1	.002	.571	(.402, .809)
Other	-.572	.280	4.179	1	.041	.564	(.326, .977)
Late to class							
Intercept	-1.202	.217	30.768	1	.000		
Black	.244	.114	4.569	1	.033	1.277	(1.020, 1.597)
Hispanic	.410	.128	10.199	1	.001	1.507	(1.172, 1.938)
Inappropriate Behavior							
Intercept	-.300	.145	4.254	1	.039		
Black	.440	.074	34.932	1	.000	1.553	(1.342, 1.797)
Hispanic	-.205	.090	5.201	1	.023	.815	(.683, .972)
Possession/Use Drugs, Alcohol, Tobacco							
Intercept	.430	.142	9.247	1	.002		
Black	.437	.078	31.561	1	.000	1.549	(1.330, 1.804)

Note. Reference category is other school-defined offense. Student related characteristic reference categories are: female, disabled, 17-22-year-old, White, and high school. Categories deleted if non-significant (Sig.>.05).

Race/ethnicity was predictive of seven types of discipline referral (Table 8). Black students were more likely than White students to receive discipline referrals for assault, theft, harassment, late to class, inappropriate behavior and possession/ use of drugs,

alcohol, or tobacco. Hispanic students were more likely than White students to receive discipline referrals for late to class as compared to other school-defined offenses.

Hispanic students were less likely than White students to receive discipline referrals for cell phone use, harassment and inappropriate behavior as compared to other school-defined offenses. The only referral category that students of other racial groups (Asian/Pacific Islander, Hawaiian, Native American/Alaskan) was statistically linked to was harassment. Students categorized in these categories were less likely than White students to receive a referral for harassment as compared to other school-defined offenses.

Q3. *What are the predictive relationships between student-related characteristics (race/ethnicity, gender, age, grade level, disability status, and school location) and suspensions?* chi square analysis was used to determine if statistically significant relationships existed between each student-related characteristic and the outcome variable of suspension. Suspension was separated into five categories that included: No suspension, In-School suspension (ISS), Out-of-School suspension (OSS), Out-of-School suspension remainder of year, and Out-of-School suspension 365 days. During the 2015-2016 school year the study district had zero instances of OSS remainder of year and OSS 365 days therefore the categories reported included: no suspension; ISS, and OSS.

The chi-square analysis for suspension and race/ethnicity resulted in a statistically significant relationship Pearson $\chi^2 (6, N = 14660) = 91.203, p = <.001$. White students had a higher rate of no suspension than expected by random chance. Black students had a higher rate of OSS than the expected count. Hispanic students received ISS at a higher

than expected rate. Those included in the 'other' ethnicities category received no suspension and ISS at higher rates than expected.

Gender was not found to have a statistically significant relationship to suspensions Pearson $\chi^2 (2, N = 14660) = 2.054, p = .358$. Gender was therefore not included in regression analysis. Age was examined and determined to have a statistically significant relationship to suspension Pearson $\chi^2 (8, N = 14660) = 1484.978, p = <.001$. Post-hoc analysis revealed that students in the 4-7 and 8-10-year-old groups received no suspension at a higher rate than the expected count. Students in the 11-13-year-old group received no suspension and ISS at a higher rate than expected. Those in the 14-16 and 17-22-year-old ranges received ISS and OSS at higher rates than expected.

Grade level was determined to have a statistically significant relationship to suspensions Pearson $\chi^2 (6, N = 14660) = 2000.006, p = <.001$. Students in elementary school were found to receive no suspension at a higher rate than expected and ISS and OSS at a rate that was less than expected. Middle school students received no suspension and ISS at higher rates than expected and OSS at a lower rate than expected. High school students received ISS and OSS at a higher rate than expected, and no suspension at a lower rate than expected. The behavioral alternative middle-high school had OSS at a higher rate than expected and no suspension and ISS at a lower rate than expected.

Examination of the data indicated that there was strong evidence of a relationship between disability status and suspensions Pearson $\chi^2 (2, N = 14660) = 52.268, p = <.001$. Nondisabled students received no suspensions and ISS at a rate higher than the expected count. Students with disabilities received OSS at higher rates than the expected count.

School location was also shown to have a statistically significant relationship with suspensions Pearson χ^2 (72, $N = 14660$) = 4619.145, $p = <.001$. Of the 37 schools in the district, 13 reported no suspension at a rate higher than the expected count. Seven had ISS and OSS counts at higher levels than the expected count. Five schools had ISS only at a higher rate than expected. Six schools had OSS at rates higher than expected. Four schools reported both no suspension and OSS at higher rates than expected. Two schools had rates of no suspension and ISS at higher rates than expected.

Multiple logistic regression analyses were conducted to determine the predictive relationships between nature between the student-related characteristics of race/ethnicity, age, grade level, and disability status, and suspension. Prior to conducting the multiple logistic regression analysis, it was necessary to determine if there is a normal distribution between the predictor and outcome variables (Triola, 2012). Any variable that did not exhibit a relatively normal distribution was not entered into regression analysis, as these data violated assumptions of multiple logistic regression analysis and skewed the outcome of the analysis (Triola, 2012). An examination of normality was conducted through the examination of histograms and visual inspection of normal Q-Q plots for each predictor variables (student-related characteristics) in relationship to the outcome variable (suspension). Due to non-normal distribution, school location was excluded from the multiple logistic regression analysis. Each of the student-related characteristics included in the analysis exhibited relatively normal distributions and were therefore included in the analysis.

Results from the classification analysis indicated that 52.8% of OSS, ISS and no suspension can be explained by the student-related characteristics of race/ethnicity, age, disability status and grade level. An examination of Table 9 revealed that there were significant predictive relationships between multiple student-related characteristics and suspension, therefore the null hypothesis stating that “no student-related characteristic (race/ethnicity, gender, age, grade level, disability status, school location) was significantly predictively related to suspensions,” has been rejected.

Table 9

Regression Analysis for Variables Predicting OSS and ISS

Variable	Out-of-School (n = 3290)			In-School (n = 4030)		
	B	SE	OR	B	SE	OR
Intercept	.237	.100		.277	.096	
Student variable						
Nondisabled	-.484	.052	.616	NR	NR	NR
Age Group						
4-7 years	NR	NR	NR	-1.267	.230	.282
8-10 years	-.450	.184	.638	-.692	.215	.501
11-13 years	NR	NR	NR	-.407	.105	.666
14-16 years	NR	NR	NR	-.372	.079	.689
Ethnicity						
Black	.429	.049	1.536	.099	.047	1.104
Hispanic	.138	.067	1.148	.221	.061	1.247
Other	NR	NR	NR	NR	NR	NR
Grade Level						
Elementary	-1.120	.162	.326	-1.696	.193	.183
Middle	-1.493	.097	.225	-.482	.076	.618

Note. Reference category for OSS and ISS is no suspension. Student related characteristic reference categories are: disabled, 17-22-year-old, White and high school. NR = no statistically significant relationship.

When comparing ISS with no suspensions, there was no predictive relationship for disability status. There were significant predictive relationships between ISS and age group, grade level, and multiple ethnicity categories. The odds of receiving ISS in comparison to no suspension increased as age group increased. Students aged 4-7 were 72% less likely (OR = .282) than those 17-22 to receive ISS. Students who were 14-16 years of age were 31% (OR = .689) less likely to receive ISS as compared to no suspension than those aged 17-22.

Students in later grade levels had greater odds of receiving ISS than no suspension as compared to earlier grade levels. Students in middle school had higher odds (OR = .618) of receiving ISS as compared to those at the elementary level (OR = .183), but lower odds than students in high school. Students in middle school were about 38% less likely than high school students to receive ISS than no suspension while elementary students were 92% less likely than high school students to receive ISS.

Black and Hispanic students had greater odds of receiving ISS than no suspension when compared to White students. Hispanic students had almost 25% (OR = 1.247) higher odds of receiving ISS than no suspension when compared to White students. Black student's odds of receiving ISS rather than no suspension were lower than Hispanic students, but higher than White students (OR = 1.104). There was no statistically significant relationship between either ISS or OSS as compared to no suspension for students who classified themselves in other ethnic categories (Asian, Pacific Islander, multi-two or more, Native American/Alaskan).

Predictive relationships existed between disability status, ethnicity, age group and grade level for OSS as compared to no suspension. Disabled students were more likely to receive OSS than no suspension when compared to nondisabled students (OR = .616). Students with no disability had 38% lower odds than students with disabilities of receiving OSS as compared no suspension.

When compared to the reference group of 17-22-year-old students, the only group to reach a statistically predictive level when comparing OSS to no suspension was the 8-10-year-old group. Students in the 8-10-year-old range (OR = .638) had approximately 36% lower odds of being suspended than those in the 17-22-year-old group. In contrast to the information provided for ISS as compared to no suspension, as the age of the student increased, the higher odds that the student would receive ISS as compared to OSS. For example, for 4-7-year-old students (OR = .386), the odds were 71% lower that they would receive ISS than OSS than were 17-22-year-old students. For students from 14-16 years old (OR = .799), the odds were 20% lower that they would receive ISS than OSS when compared to 17-22-year-olds.

All grade levels were predictive of OSS as compared to no suspension. Students in elementary school (OR = .328) had approximately 67% lower odds of receiving OSS than no suspension as compared to high school students. Middle school had approximately 77% lower odds (OR = .225) of receiving OSS rather than no suspension when compared to high school students.

Ethnicity was a predictor for OSS compared to no suspension. Black and Hispanic students had greater odds of receiving OSS than no suspension when compared to White

students. Hispanic students had almost 15% (OR = 1.148) higher odds of receiving OSS than no suspension when compared to White students. Black student's odds of receiving OSS rather than no suspension were 54% higher than White students (OR = 1.536).

Disability status also had a predictive relationship with OSS. Nondisabled students were nearly 39% less likely (OR = .616) to receive OSS than no suspension as compared to students with disabilities. It may be inferred from this information that students with disabilities were more likely than their nondisabled to receive OSS than no suspension.

Table 10 shows a comparison of ISS and OSS. Disability status, age group, ethnicity and grade level are all predictors of a student receiving ISS in compared to OSS.

Table 10

Regression Analysis for ISS

Variable	B	SE	Wald	df	Sig.	Exp(B)	95%CI
Intercept	.040	.102	.150	1	.699		
Student variable							
Nondisabled	-.418	.060	48.761	1	.000	1.520	(1.35,1.71)
Age Group							
4-7 years	-.953	.255	13.958	1	.000	.386	(.234, .636)
11-13 years	-.579	.125	21.426	1	.000	.560	(.439, .716)
14-16 years	-.225	.077	8.440	1	.004	.799	(.687, .930)
Ethnicity							
Black	-.331	.054	36.868	1	.000	.719	(.646, .799)
Grade Level							
Elementary	-.576	.218	6.954	1	.008	.562	(.366, .863)
Middle	1.012	.100	102.073	1	.000	2.750	(2.26, 2.35)

Note. Reference category for is OSS. Student related characteristic reference categories are: disabled, 17-22-year-old, White, and high school. Categories deleted if non-significant (Sig.>.05).

Disability status was significantly predictive of whether a student received ISS or OSS. In the analysis above, when all other variables are held constant, for students who were nondisabled (OR = 1.52) the odds were 52% higher that they would receive ISS than OSS as compared to their disabled peers. Students with disabilities were significantly more likely than their nondisabled peers to receive OSS than ISS.

Both ethnicity and grade level were also significantly predictive of the odds of receiving ISS as compared to OSS. Black students (OR = .719) had 28% lower odds of ISS than OSS than are their White peers. Students of other ethnicities (Hispanic, Asian/Pacific Islander, Native American/Alaskan, Hawaiian) were not statistically significantly predictive of ISS as compared to OSS. Elementary students (OR = .562) had 44% lower odds of receiving ISS than OSS as compared to high school students. Middle school students were more likely than high school student to receive ISS than OSS (OR = 2.750).

Age was statistically predictive of the odds of receiving ISS as compared to OSS. The only age group that was not statistically related to ISS as compared to OSS were students from 8-10 years old when compared to the reference group of 17-22-year-old students. Students from 4-7 and 11- 16 years old had lower odds of receiving ISS rather than OSS as compared to students in the 17-22-year-old range. Students from 4-7 years had approximately 62% lower odds of receiving ISS than OSS as compared to students 17-22 years old. Students 11-13 years old had 44% lower odds of receiving ISS than OSS, and students 14-16 had 20% lower odds of receiving ISS than OSS when compared to the 17-22-year-old reference group.

Summary

In this study of possible predictive relationships between student-related characteristics and school discipline procedures, a total of three research questions were assessed. Research Question 1 asked: What are the predictive relationships between student-related characteristics (race/ethnicity, gender, age, grade level, disability status, and school location) and the total number of discipline referrals? This question was assessed using chi-square and linear regression analyses. chi-square analysis indicated that total number of referrals per year had statistically significant relationships with the predictor variables of gender, age, race/ethnicity, grade level, disability status, and school location. Linear regression analysis was performed to determine if any of the student-related characteristics were predictors of total number of discipline referrals. Results from the linear regression indicated that, both disability and gender were predictors of number of discipline referrals. Since disability status and gender were found to be predictors of total number of discipline referrals, the null hypothesis was rejected.

Research Question 2 asked: What are the predictive relationships between student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location with type of discipline referrals? This question was assessed using chi-square and multiple logistic regression analyses. Results of the chi-square analysis indicated that all student-related characteristics had a statistically significant relationship to type of discipline referral. A post hoc analysis of the crosstabulation indicated that school location may provide the study district with important information about the types of referrals made at each school. Due to a non-normal distribution, school location was

excluded from the multiple regression analysis. Race/ethnicity, grade level, gender, disability status, and age group were all predictors of type of discipline offense. Since race/ethnicity, grade level, age group, disability status, and gender were found to be predictive of the type of discipline referral, the null hypothesis was rejected.

Research Question 3 asked: What are the predictive relationships between student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location with suspensions? This question was assessed using chi-square and multiple logistic regression analyses. Results of the chi-square analysis indicated that all student-related characteristics except for gender had a statistically significant relationship to type of discipline referral. A post hoc analysis of the crosstabulation indicated that school location may provide the study district with important information about the types of referrals made at each school, however due to a non-normal distribution school location was excluded from the multiple logistic regression analysis. Results from the multiple logistic regression analysis indicated that race/ethnicity, disability status, grade level and age were all predictors of suspension, therefore the null hypothesis was rejected.

Results from the analyses are further interpreted in Chapter 5. Limitations of the current study and recommendations for further research are also discussed. Chapter 5 also includes the potential impact for social change.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to identify and understand the possible predictive relationships between (a) the predictor variables, referred to in this study as student-related characteristics, including race/ethnicity, gender, age, grade level, disability status and school location, and (b) three outcome variables, which included total number of referrals, type of discipline referrals, and suspensions. This research was unique because, in this setting, a comprehensive analysis of disaggregated discipline data not been performed. The results from this study provided the study district with an understanding of the patterns in discipline that could be related to disproportionality in office referrals and suspensions.

The two student-related characteristics found to be predictive of office discipline referral, type of discipline referral, and suspensions were gender and disability status. Males were more likely to receive disciplinary office referrals than females. Students with disabilities were likely to receive office discipline referrals at higher rates than their nondisabled peers.

Race/ethnicity, grade level, age, disability status, and gender were all predictively related to type of discipline referral. Race/ethnicity was predictive of seven types of discipline referral. Black students had higher odds than White students of being referred for assault, theft, harassment, late to class, and possession/use of alcohol, tobacco, or drugs. Hispanic students had higher odds than White students of receiving referrals for cell phone use, harassment, and inappropriate behavior.

Grade level and age were both predictive of type of discipline referral. Students in elementary and middle schools had higher odds of being referred for assault, harassment, and inappropriate behavior than students at the high school level. Middle school students had higher odds than high school students of being referred for late to class and possession/use of drugs, alcohol, or tobacco, and less likely to be referred for cell phone use. Students in the 4-7-year-old range had higher odds of referral for harassment than the oldest group. Eight to 10-year-old students were predictively related to referral for cell phone use, as compared to 17-22-year-old students. Students from 11-13 years old had higher odds of being referred for inappropriate behavior and assault as compared to the 17-22-year-old group. The 14–16-year-old students had higher odds than older students of being referred for assault, harassment, and cell phone use. The 17-22-year-old group had higher odds of being referred for truancy, late to class/ tardy, and possession/ use of alcohol, tobacco, or drugs.

Disability status was a predictor variable for four categories of discipline referral: assault, harassment, inappropriate behavior, and possession/use of drugs, alcohol, or tobacco. Students with disabilities had higher odds of being referred for assault, harassment, and inappropriate behavior than their nondisabled peers. Nondisabled students had higher odds than disabled students of being referred for possession/use of drugs, alcohol, or tobacco.

Gender was a predictor for the type of discipline referral that students received. Females had higher odds than males of receiving office discipline referrals for cell phone use, inappropriate behavior, and truancy as compared to other school defined offences,

and males had higher odds than females of receiving referrals for assault and possession/use of drugs, alcohol, or tobacco.

Race/ethnicity, grade level, age, and disability status were all predictively related to suspensions. Race/ethnicity was predictive for receiving ISS, OSS, and no suspension. Black and Hispanic students had greater odds of receiving ISS than no suspension when compared to White students. This trend was also true for OSS. Hispanic students had almost 15% higher odds of receiving OSS than no suspension when compared to White students. The odds of Black student receiving OSS rather than no suspension were 54% higher than White students. Black students had lower odds of receiving ISS when compared to OSS. Hispanic and all other ethnicities examined were not predictively related when comparing ISS and OSS.

Grade level and age were both predictively related to suspension. Elementary and middle school students had higher odds of receiving no suspension than either ISS or OSS. Middle school students had greater odds of receiving ISS than students in elementary school, and lower odds than students in high school. When comparing ISS with OSS, elementary students had lower odds of receiving ISS than OSS. Middle school students had higher odds of receiving ISS than OSS. High school students had the highest odds of receiving OSS.

When all other variables were held constant, students with disabilities had higher odds of receiving OSS as compared to ISS. Nondisabled students had higher odds of receiving no suspension and ISS than OSS. There was no predictive relationship between disability status when comparing ISS and no suspension.

While school location was not found to be predictively related to referrals, type of discipline referral or suspension, post-hoc analysis indicates that school location may provide the study district with valuable information. Three school locations exceeded 395 students who received a total of 1-10 referrals per year. One of these three locations also had the greatest number of students referred 11 or more times. The school location with the greatest number of referrals ($N = 499$) was a middle school. This middle school was the only school in the district that reported students with total number of office referrals per student ranging from 24 to 49. The other two schools that reported 395 or more referrals in the school year were high schools. All other schools reported 300 or fewer referrals per year.

Interpretation of the Findings

In the study district, disability status was the only student-related characteristic that was a predictor variable for all three dependent variables. Consistent with multiple investigations conducted over the past decade (Fabelo et al., 2011; Mellard & Seybert, 1996; Miller & Meyers, 2015; USDOE, 2016c) the current examination of linear regression data indicated that students with disabilities had higher odds of receiving discipline referrals than their nondisabled peers. While it may be expected that students with disabilities, especially those who have behavioral and emotional disabilities, would exhibit negative behaviors at a higher rate than their typical peers that result in higher rates of office discipline referrals and suspension, federal law has established protections for these students (USDOE, 2016) so that they receive supports and services to ensure that they are able to remain in the educational setting and receive the benefits of a free

and appropriate education. The findings of the current study indicate that the students in the study district may not be receiving the training and support necessary to improve behavior and reduce office discipline referrals. An examination of the quality of students' IEPs and the fidelity of their implementation may aid in the reduction of disproportionality in this area.

Since there is limited research related to the type of discipline referrals received by students with disabilities the current study attempted to fill this gap in literature. The current study examined archived school discipline data for the 2015-2016 school year for one suburban school district. In an official communication from the North Carolina Department of Public Instruction on April 17, 2017 (Hussey, 2017), in the state of North Carolina, during the 2015-2016 school year, a total of 16 school districts ($N = 250$) were determined to have disproportionate suspension of Black students with disabilities. The types of infractions were not included in these publicly available data due to state reporting requirements that do not require disaggregation of these data. The types of discipline referrals received by students with disabilities in the current study were more subjective (harassment, inappropriate behavior, and assault) than those received by nondisabled peers (possession or use of alcohol, tobacco, or drugs). Students with disabilities were referred to the office for behaviors that were more subject to interpretation by those referring to the office than their typical peers. Establishment of observable and measurable definitions of behaviors that result in office referral may aid the study district in a more uniform application of office referral.

Students with disabilities in the United States are afforded legal protections that allow them to receive testing accommodations, classroom modifications, and specially designed instruction to aid them in overcoming the negative impact of the disability on their ability to receive an appropriate education (USDOE, 2016). These supports and services are also accompanied by protections related to disciplinary procedures. When students with disabilities are suspended for 10 days or more in a school year, the IEP team must assemble to review and update the supports that the student receives to help the student improve their skills related to the disciplinary infraction(s). The team that meets is charged with developing plans to train the student in more socially acceptable behaviors, and to address the problems that underly the behaviors that are being seen. It is important for the team to have detailed incident descriptions that are observable and measurable in order to develop a clear plan to address the specific behaviors that are being exhibited. These current data suggest that a review of how the study district defines specific discipline incidents should be examined to ensure specificity and consistency of reporting. There should also be a review of the processes used in supporting students with disabilities including a review of the quality of the plans being written to support students, and the fidelity of the implementation of these plans.

All public-school districts have in place a process for office discipline referral and the disposition of those referrals once the referral is received by school administrators. Referrals are often classified as minor and major referrals. A minor referral is often one where the school environment has experienced a disruption, but there has been no major violation of the student code of conduct. Minor referrals may include inappropriate use of

cell phones, being late to class, or a violation of the dress code. Once reviewed by an administrator, minor referrals often result in a loss of privilege, or spending additional time in educational pursuit, such as after school detention working on missed education. Major referrals are generally reserved for more severe discipline referrals such as fighting, possession or use of drugs, alcohol or tobacco, or bringing a weapon to school. Major office referrals generally result in more severe and often exclusionary consequences such as in-school or out-of-school suspension or expulsion. The study district may wish to examine how each office referral type is defined to ensure that the behaviors that result in a defined office referral are observable and measurable, and are applied consistently among the employees who refer students to the office. Once there are clearly defined reasons for office referral the district may then examine how each type of referral is deposited. Consistent data must be kept and analyzed at both the school level and the district level to ensure that the parameters that were established are being executed with fidelity, and supports are put into place when there is deviation from the plan.

Across the United States there have been multiple studies that suggest that students with disabilities have higher odds of being suspended than their nondisabled peers (Fabelo et al., 2011; Miller & Meyers, 2015; USDOE, 2016c). The results of the current study are consistent with these previous findings. Unlike the findings of Miller & Meyers (2015), who found that disabled students received ISS at a higher rate than their nondisabled peers, the current study found that students with disabilities had higher odds of receiving OSS rather than no suspension or ISS than their nondisabled peers.

An examination of the 10 school districts in North Carolina that were the most demographically similar to the study district revealed that one-third of the districts were determined to have suspended Black students with disabilities for greater than 10 cumulative days during the school year at more than twice the state average rate during the 2015-2016 school year (Hussey, 2017). A total of 16 LEAs in the state had this level and type of disproportionality which equates to 6.4% of the LEAs in North Carolina. While the study district had a history of disproportionate suspension, they were no longer included on this list. Since the state required the district to set aside 15% of their special education funding to address disproportionality, it is assumed that the district restructured some of their processes and procedures to address disproportionality during the 2015-2016 school year, and that the interventions employed resulted in the district being removed from the state's significant disproportionality classification.

Although the study district was removed from the state's list as having significant disproportionality, the findings of the current study indicate that the study district is referring students with disabilities for disciplinary infractions at a higher rate than their nondisabled peers, for more subjective infractions and, when imposing disciplinary consequences, is choosing more exclusionary measures. This outcome is disturbing when considering the protections offered students with disabilities who fall under antidiscrimination laws. Upon the proposal of the tenth day of suspension in a school year, and every recommendation for suspension thereafter, these laws offer students with disabilities a review of their discipline offense to determine if it is caused by or substantially related to their disability (USDOE, 2016). This process is referred to as

manifestation determination. If the team conducting the review determines that the offense is related to the disability, or the lack of implementation of the student's IEP, the recommended suspension may not occur, and modifications must be made to the student's plan. If the district's manifestation determination process was effectively implemented, students who exhibited behaviors related to their disability would not be excluded from the educational setting for more than 10 total days in a school year. Study teams would consistently review student behaviors and intervene to ensure that students' plans were updated and that they received the supports necessary to be successful in the educational environment. These teams would meet prior to a student receiving exclusionary discipline, such as in-school or out-of-school suspension, to determine if the behavioral infraction was related to their disability and make plans to ensure that students received necessary supports. The fact that the study district has a record of exclusionary discipline at higher rates for students with disabilities indicates that a review of the manifestation determination processes should be conducted

Race/ethnicity were predictors for the outcome variables of type of discipline referral and suspension. Results from the current study indicated that Black students had higher odds of referral for theft, harassment, late to class, and possession/use of alcohol, tobacco, or drugs than White students. Hispanic students had higher odds of referrals for cell phone use, inappropriate behavior, and harassment than their White peers. Results of the current study were consistent with studies that have been conducted at state and national levels (Losen & Gillespie, 2012; Losen, Hodson et al., 2015; New York Civil Liberties Union, 2013; U.S. Department of Civil Rights, 2016). In the current study,

Black students had 54% higher odds of receiving OSS than White students. Hispanic students received ISS at higher rates than no suspension and had 15% higher odds of receiving OSS than no suspension than White students. Like the results for students with disabilities, Black and Hispanic students are receiving exclusionary discipline at a higher rate than White students. The reasons for discipline referral for Black students tend to be more serious infractions than their White peers, while Hispanic students receive referral for more subjective infractions. The study district may benefit from examining culturally responsive practices in combination with a tiered system of intervention in order to reduce the gap in racial disproportionality across the district (Parsons, 2017; Sugai, Fallon, & O'Keefe, 2012).

Results from the current study indicate that gender was a predictor for number of office discipline referrals and type of discipline referral. These local results were consistent with other research studies that analyzed national data (Bryan et al., 2011; Mizel et al., 2016; Hemphill et al., 2014). In both the current study and studies done at the national level, males had statistically significantly higher odds than females of receiving office discipline referrals. Data from the current study indicates that males were referred for offenses including assault and possession or use of alcohol, tobacco, or drugs, while females were cited for offenses such as cell phone use, inappropriate behavior, and truancy. In contrast to a recent national study (USDOE, 2016b), in the current study gender was not predictively related to suspension in the current study. The study district imposed disciplinary consequences consistently for both males and females. When examining the types of discipline violations however, males were much more likely to

receive office discipline referrals for less subjective reasons than females. The study district may wish to review school specific data to examine the specific categories of referrals males are receiving in relationship to those received by females to determine if there is a need for more specific definition of office discipline referral categories, and to ensure consistent application of office discipline referral processes in the school and also between schools.

While in this study the application of disciplinary consequences was not related to gender, the number of discipline referrals were significantly higher for males than females. Ensuring that schools are examining data disaggregated by gender and implementing evidence-based interventions that related to the disproportionate representation of males in office discipline referrals is essential. Since office discipline referrals result lost educational time for the student being disciplined, a deeper examination of this phenomenon at the school level may result in corrective actions that could result in more time in the educational setting for all students.

Age and grade level were both predictively related to the type of discipline referral and suspension. Consistent with current research (Losen, Hodson et al., 2015; USDOE, 2016b) students in elementary school were more likely to receive no suspension rather than ISS, and more likely to receive OSS than ISS. This finding was consistent with those of Butler, Lewis, Moore, and Scott (2012) who postulated that this may be due to the elementary school level having fewer options than secondary levels for alternative disciplinary consequences. Both elementary and middle school students had higher odds of receiving office referrals for harassment, assault, and inappropriate behavior than

students at the high school level. Middle school students were also referred for late to class/ tardy and possession or use of alcohol, tobacco, or drugs at rates higher than elementary or high school students. High school students had the highest odds of being referred for cell phone use. The predictive patterns for age mirrored grade levels patterns for both suspension and type of discipline referral. In the study district students in middle school receive office referrals for the same subjective reasons as students in elementary school, and receive ISS and OSS as a consequence at a higher rate than elementary suggesting that students at the elementary level may be receiving instruction to correct behaviors, and receive no suspension while students in middle school receive more exclusionary consequences for their behavior. High school students are most likely to receive referral for cell phone use and receive exclusionary discipline for this minor offense. An examination at the middle and high school level of the disposition of office discipline referrals, and the implementation of non-exclusionary, and more instructional interventions for minor infractions, may benefit students through increased instructional time, and learning of more socially acceptable behaviors.

School location was not predictively related to discipline referral, type of referral or suspension, but has implications for the local district. Of the three schools with greater than 395 students who received referrals during the 2015-2016 school year, all were secondary schools. The school with the most referrals was a middle school setting that was also the school that had the most referrals per student per year. The study district may benefit from reviewing the policies and practices used for disciplining students in these schools to determine how minor infractions may be handled in a different manor to

avoid the negative repercussions that are associated with high levels of office discipline referrals and the resulting exclusionary discipline consequences.

When viewing school discipline through the lens of behaviorism, we would expect to see no identifiable differences in patterns of behavior, referral patterns or disciplinary dispositions that were not related to the environment only. If students in a given school were rewarded and disciplined equally, we would not expect to see discipline referrals that were out of proportion to a student's representation in the school population is identical, we would expect that discipline rates would reflect these same percentages (Skinner 1984; Vargas, 2013). In other words, when viewed through the lens of behaviorism, and if students exhibit identical behaviors, student characteristics such as gender, age and race/ethnicity should have no connection to discipline outcomes. Discipline outcomes should also be evaluated in alignment with the function of a student's behavior. For students who are attempting to escape the school setting, exclusionary discipline will serve to increase rather than extinguish the behavior. Application of research-based interventions that address the function of students' behaviors, would provide both students and educators with appropriate tools to train students appropriate replacement behaviors and extinguish less acceptable behaviors while allowing students access to their education.

In the study district, there were clear patterns of discipline that were not congruent with the tenants of behaviorism. In the study district, and in many districts across the nation (Losen, Ee et al., 2015; Skiba 2011, USDOE, 2016b, c), patterns of exclusionary discipline have been applied disproportionately to students with disabilities, Black and Hispanic students, and students at the middle and high school levels. By examining the trends in discipline data provided in this study, through the lens of

behaviorism, the district should examine its disciplinary patterns and use research-based interventions to reduce the inequitable application of disciplinary procedures.

Limitations of the Study

Findings of this study are only generalizable to other school districts that serve comparable populations in a suburban setting, and have similar discipline policy and data collection guidelines. This investigation was limited using an archival data set that was not triangulated with other data sources. The school discipline data reported were those behavioral violations of the school code of conduct that are reported to school administrators. Some behaviors that violated the school code of conduct may have gone unreported by school staff. Minor violations of the school code of conduct might have been handled by school personnel and never reported to school administrators. In other cases, school administrators might have conducted investigations of office referrals, and may have chosen not to issue consequences for student misbehavior. Since school administrators are the individuals who ultimately assign consequences and record the disciplinary dispositions in the data-reporting system, differences in school administrators' attitudes toward discipline policy were assumed to have an impact on the data (Findlay, 2015).

Another limitation lies in the variability in how different schools define and employ office discipline referrals. Variability may occur between and among school staff depending upon staff attitudes toward discipline policy, student behaviors and training (Smolkowski, Girvan, McIntosh, Nese, & Horner, 2016). These factors were assumed to

have an uncontrollable impact on the data. Even given this impact, the data were assumed to represent the true nature of the discipline practices in the school.

School-related factors have been found to have an impact on student discipline (Martinez, McMahon, & Treger, 2016). These factors include school climate, racial/ethnic concentration, and student to teacher ratio. Due to the use of archival data analysis in this study, the threats to validity and reliability of discipline data could not be controlled by me. Finally, this study was correlational and does not provide evidence of the cause of different patterns of discipline referral and suspension.

Recommendations

The current study provided a look into the disproportionate use of discipline practices in one suburban school district in the southeastern United States. The predictive relationships between student-related characteristics and number of referrals, type of referral and suspension were discussed. Since only 52.8% of suspension could be explained by the predictor variables, there is a need for further study of this complex issue. Additional research should include an examination of other variables related to the discipline, such as the race/ethnicity of persons referring students for discipline, location in the school where discipline referrals are occurring (Anyon et al, 2017), obtaining qualitative data such as an understanding of principal and teacher attitudes toward discipline, and possibly disaggregating data to include other marginalized populations such as LGBT students. Since disability was a predictor for each of the dependent variables, it may be beneficial for the study district to examine categories of eligibility in relationship to each of the outcome variables to determine if there are predictive

relationships between the category of disability, number of referrals, type of referral, and suspension. This would allow the district to address the supports necessary to ensure that students with disabilities have access to their education.

Since each student with a disability has a plan in place to support the provision of an appropriate education, other factors related to the services provided to students with disabilities should be examined such as the support given to students that directly relate to their behavioral, and social/emotional learning, these include: examination of quality of the plans that are written for students with disabilities, review of the fidelity of implementation of the written plans; examination of the amount and types of support each student is receiving; exploration of student progress monitoring data in relationship to the goals that are written for each student; and review of each student's least restrictive environment.

By understanding the patterns of discipline, as applied to students with disabilities, revealed by the data in this study, it is evident that students with disabilities are not being fully afforded the special protections provided by law through the manifestation determination process (USDOE, 2016). The student study team process that ensures that this legal mandate is enforced, must be reviewed and updated at the district level. Adherence to the legal guidelines must be met through the training of all student study teams and the administrators who oversee them in the legally mandated team process. The district must also establish of a cyclical review of manifestation determination outcome data to determine when there is deviation from the process, so that further education may be provided to those who are not fully adhering to the process.

Additionally, further examination of the six school locations in the district that had higher than expected rates of OSS, and the four schools that reported both ‘no suspension’ and OSS at higher rates than expected may help the study district to strategically intervene to reduce disproportionality. Research-based interventions may be implemented to examine the function of student behaviors, and provide each student with training on how to have their needs met in a manner that is more socially acceptable than those that result in exclusionary discipline. Training for staff and administrators on how to deescalate behaviors, understanding and responding to the function of a student’s behavior, cultural responsiveness, disability specific information and how to provide supports for all children will better equip schools to be proactive with student behavior rather than relying on reactive measures.

This study also points out the need for all school districts to annually disaggregate and examine school discipline data to identify patterns of discipline referral that may lead to disproportionate representation of groups in disciplinary procedures. While the study district has annually reported discipline data to the state as required by law, this study is the first time that the data has been carefully examined to determine possible predictive relationships, between student related characteristics and disciplinary outcomes. Additionally, states need to require that the types of office discipline referral be disaggregated and examined, as was done in this study. Definition of specific observable and measurable behaviors that result in office discipline referral lead districts toward an understand of how students are referred for discipline, and if referral is being done in and among schools in a given district in an equitable manner. Only through the careful

examination of school discipline data may districts begin to understand and implement interventions related to disproportionate representation of at risk students in exclusionary discipline practices.

Implications

The current study has the potential to impact social change in the study district. Patterns of inequity in disciplinary procedures in the district have been identified. While causative factors have not been identified in this study, an examination of the policies and disciplinary patterns by the study district may lead to the implementation of evidence-based interventions that could reverse the negative implications of current disproportionate disciplinary exclusion of the affected groups. Such change would afford students, who are currently disproportionately excluded from receiving an appropriate public education, a chance to receive the benefits of the education that they are entitled to.

Policy makers need to continue to require the collection and reporting of academic and discipline data disaggregated by race/ethnicity, disability status, age, gender (including gender identity). Only through the collection and examination of these data, and reporting of the data to the public will change occur. Local, state, and national policy makers need to continue to publicly question the use of exclusionary discipline and the lack of evidence that supports it. Research-based alternative strategies to exclusionary discipline exist and should be implemented at the local and state and levels. School districts should be encouraged to implement evidence-based practices that reduce exclusionary discipline. Policies should be enforced to ensure that schools using high

levels of exclusionary discipline are afforded assistance to implement alternative strategies to reverse their negative trends. Policy makers also need to increase support for research on disproportionate use of exclusionary discipline with students with disabilities and by race/ethnicity.

Evidence-based practices that are shown to decrease office discipline referrals, improve school climate, and increase instructional time should be implemented in all school districts. These evidence-based practices include, but are not limited to School-wide Positive Behavior Supports (SWPBS) that incorporate culturally relevant strategies (Boneshefski & Runge, 2014; Morris & Horner, 2016; Parsons, 2017); restorative justice (Fronius, et. al., 2016, Gregory, Soffer, Gaines, Hurley, & Karikehalli, 2016); explicitly teaching appropriate behaviors (Freeman, Sugai, Simonsen, & Everett, 2016), and implementing Multi-Tiered Systems of Support (MTSS) (McIntosh & Goodman, 2016) for all students to address academic, social/emotional, and behavioral learning. Ongoing support for professional development and coaching are necessary to establish, and ensure fidelity of implementation of these evidence-based practices.

While the regular examination of disaggregated school and district discipline data may lead to a reduction in disproportionate exclusion of at risk student populations district leaders also need to regularly examine policies to ensure that policies do not undermine the efforts of implementing and sustaining preventative measures. Regular evaluation of policy can ensure that policies related to discipline do not interfere with the teaching of appropriate alternative behaviors to all students. Current data collection practices should also be reviewed at the school and district levels to ensure that data are

collected to accurately assesses the impact of research-based interventions and programs, and to assess the fidelity of implementation. It is important that the district identify the specific data that is necessary to be collected and analyzed, as well as how and when the data will be analyzed to impact change in the district. If schools in the district are not collecting and analyzing data in a comprehensive and uniform manner, resources must be allocated to alter the current systems.

Conclusion

The school discipline data from 38 school sites in one southeastern K-12 public-school district with approximately 32,000 students were analyzed to determine if there were predictive relationships between the student-related characteristics of race/ethnicity, gender, age, grade level, disability status, and school location, and three disciplinary outcome variables including: number of referrals, type of discipline referral and suspension. The data showed that disability status was a predictor for all three outcome variables. Students with disabilities experienced higher total number of discipline referrals, had higher odds of being referred for 7 different discipline referral categories, and had higher odds of receiving OSS than their nondisabled peers. Black students, and Hispanic students had higher odds of receiving ISS and OSS than White students. Age and grade level were also predictors of the type of discipline referral received and suspension.

Situated in the framework of behaviorism this study revealed that there were consistent patterns related to office discipline referrals and suspension in the study district. These patterns were, in most cases, consistent with disturbing national trends

indicating that minority students and students with disabilities are being removed from their education at rates that are significantly higher than their White peers. Previous research has documented the negative impact that disproportionate exclusionary discipline practices have on students' school and post-secondary outcomes. By removing students from instruction, students experience school disengagement, lower school achievement, lower graduation rates, higher drop-out rates, and poor post-school outcomes such as juvenile delinquency and imprisonment. Given these outcomes it is necessary to examine known patterns of disproportionality and implement evidence-based practices to ensure that all students have the same opportunity to engage in their education.

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Appendix A: Informal Approval of Study

On Apr 25, 2016, at 3:22 PM, Jason VanHeukelum
Jason.VanHeukelum@>>>>>>>>.k12.nc.us wrote:

Ms. Slingerland,

Please accept this email as an informal agreement to conduct the study that you have outlined in your prospectus. Understand that upon approval by your University you must obtain formal agreement from Dr. Propst, our Assistant Superintendent of Technology, CNP and Kids Plus

Jason Van Heukelum
 Deputy Superintendent
Curriculum & Instruction

From: Barbara Slingerland Barbara.Slingerland@>>>>>>.k12.nc.us
Date: Monday, April 25, 2016 at 12:24 PM
To: Jason Van Heukelum Jason.VanHeukelum@>>>>>>.k12.nc.us
Subject: Informal Approval of Disproportionality Study

Dr. Van Heukelum,

I have attached an outline of the proposed study that I would like to conduct that would involve the use of the school district's discipline data for the 2015-2016 school year. As you can see, the study would provide an analysis of the district's data that will provide a more in-depth analysis of the data than has ever previously been conducted. Please let me know if you would provide an informal agreement for me to proceed with this study using This district's data.

Thank you for your consideration.

Barb

Barbara Slingerland
 Director Exceptional Children and Academic Intervention
 >>>>>>>>> County Schools