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ANALYSIS OF DISPROPORTIONALITY IN DISCIPLINE AND THE EFFECTS OF
POSITIVE BEHAVIOR SUPPORTS WITHIN SPECIAL EDUCATION

By

Cutler T. Ruby

Presented to the Faculty of the Graduate School of
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Abstract

Nationwide, school districts are required (IDEA, 2004) to implement positive behavior interventions and supports (PBIS) for all students receiving special education services. These PBIS are reported to reduce problem behaviors and increase prosocial behaviors when implemented with fidelity (Crone et al., 2015). With a reduction of problem behaviors an expected reduction of discipline referrals should follow along with a reduction in days spent in exclusionary discipline for students in special education. Reducing days in exclusionary discipline is desired due to a strong research base linking the practice to several negative outcomes (Marchbanks et al., 2015) along with data demonstrating these negative outcomes are disproportionately experienced by minority and disabled students (DOE, 2018). The goal of the current study was to: 1) describe the discipline practices of a school district for students in special education, and 2) analyze the effectiveness of Tier 3 PBIS in reducing exclusionary discipline for students in special education. It was hypothesized that students receiving Tier 3 PBIS and students with more accurate behavior intervention plans (BIPs) would spend fewer days in exclusionary discipline. Results demonstrated that Black and ED students were at the highest risk for receiving exclusionary discipline and that students in special education receiving any Tier 3 PBIS spent more days in exclusionary discipline than students who did not receive Tier 3 PBIS. However, students with accurate BIPs did spend fewer days in exclusionary discipline.

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CHAPTER I

Introduction

Since 1975 the United States education system has operated within federal legislation (Education for All Handicapped Children Act [EHA], 1975; Individuals with Disabilities Education Act [IDEA], 1990, 1997; Individuals with Disabilities Education Improvement Act [IDEA], 2004) that defines the protections and services to be provided to students with disabilities. These pieces of legislation were designed to hold state and local education agencies (LEA) accountable for providing equitable educational opportunity for all students, regardless of physical or cognitive ability. Each reiteration of special education law has been founded in the equal protection clause of the 14th Amendment and designed to limit exclusionary practices by LEAs (Jacob et al., 2016). However, despite the intention, data has consistently demonstrated that the application of each special education law has continued to, either directly or indirectly, support the exclusion and segregation of specific populations of students (Donovan & Cross, 2002, Heller et al., 1982).

Presently, the term segregation is not used to describe the differences within and across specific populations regarding placement in special education. The current term utilized is disproportionality. For decades, research has sought to describe the severity of disproportionality in special education along with any predictive variables that lead to disproportionality (Dunn, 1968; Donovan & Cross, 2002; Artiles et al., 2003; Waitoller et

al., 2010; Sullivan & Proctor; 2016). Research has failed to arrive at a consensus regarding the variables that predict disproportionate placement in special education (Cruz & Rodl, 2018). However, data has consistently demonstrated, when analyzed at a national or state level, historically marginalized sociodemographic groups are disproportionately overrepresented in special education services (Sullivan & Proctor, 2016; Sullivan & Osher, 2019). This is a concern due to outcome data suggesting inappropriate placement in special education results in continued segregation and receipt of lower-quality education (Dunn, 1968; Sullivan & Proctor, 2016).

Concern also exists regarding the discipline practices of LEAs with students who are placed in special education. Exclusionary discipline practices (i.e., suspension & expulsion) are being utilized at an accelerating rate (Sykes et al., 2015) and levied disproportionately (Department of Education [DOE], 2018) despite significant negative outcomes being linked to the practice (Marchbanks et al., 2015; Mowen & Brent, 2016; Noltemeyer et al., 2015). Students who receive exclusionary discipline are more likely to have lower academic achievement (Balfanz et al., 2015), display higher rates of problem behavior (Hemphill et al., 2006), drop out (Marchbanks et al., 2015), and encounter law enforcement (Mowen & Brent, 2016). Furthermore, data has demonstrated exclusionary discipline is disproportionately placed on students in special education (DOE, 2018).

In response to the evidence demonstrating the negative effects of exclusionary discipline, preventative behavioral measures have been championed and mandated at the federal level (IDEA, 2004). These measures are widely known as positive behavior

intervention and support (PBIS) and consist of systems-level intervention strategies that seek to prevent students from reaching a level of misbehavior that would result in exclusionary discipline. PBIS is a program designed to shape and reinforce prosocial behaviors for all students attending a particular school through a three-tiered system of support (Crone et al., 2015). The first tier provides support for all students, the second tier provides targeted interventions for students at a group level, and the third tier provides specific individualized interventions for students displaying significant behaviors. PBIS is an evidence-based practice that utilizes data collected directly to inform decisions made by educators for individual students. Students move through the tiers as a continuum with students at Tier 3 receiving the most intensive support. Tier 3 PBIS services typically include a functional behavior assessment (FBA), behavior intervention plan (BIP), and/or counseling. Presently, evidence exists suggesting receipt of Tier 3 PBIS services can result in students displaying lower rates of problem behaviors (Baule & Superior, 2020; Crone et al., 2015).

Current Study

The goal of the current study was to describe the discipline practices of a school district and analyze the effects of Tier 3 PBIS services on days spent in exclusionary discipline for students in special education. This study was significant due to the continued and disproportionate use of exclusionary discipline despite significant evidence demonstrating only negative outcomes (Arcia, 2006; Balfanz et al., 2015; Christle et al., 2005; Fabelo et al., 2011; Ginsburg et al., 2014; Marchbanks et al., 2015; Mowen &

Brent, 2016; Noltemeyer et al., 2015; Suh & Suh, 2007). Evidence currently exists suggesting the receipt of Tier 3 PBIS reduces the frequency of displayed problem behaviors (Crone et al., 2015) but there is no current research seeking to determine if this ultimately leads to fewer days spent in exclusionary discipline for students in special education. This study sought to fill the current void through a program evaluation of a school district by reporting the risk for receiving exclusionary discipline across demographic categories as well as analyzing the effects of Tier 3 PBIS services on the mean number of days spent in exclusionary discipline.

Research Questions

The primary research question of the current study sought to determine if students with disabilities who receive Tier 3 PBIS services receive fewer days outside their least restrictive environment (LRE) by exclusionary discipline practices than students who receive no Tier 3 PBIS. The analysis was also be conducted to determine if demographic variables (e.g., ethnicity, SES) affect the outcome. The secondary research question examined the accuracy of the existing BIPs and their effect on days outside of the LRE for students with disabilities. Specifically, did students whose BIP targets behaviors that are resulting in school discipline remain in their LRE at a higher rate than students whose BIP does not target behaviors that are resulting in their exclusionary discipline. Finally, researchers sought to determine the level of risk for receiving exclusionary discipline by demographic variables.

Hypothesis Statement

It was hypothesized that students in special education who receive Tier 3 PBIS will spend on average fewer days outside of their LRE than students in special education who receive no Tier 3 PBIS. Furthermore, it was hypothesized that students with a more accurate BIP will also spend fewer days outside of their LRE due to exclusionary discipline. Also, it was expected that students who are of minority and Low SES status will be at the highest risk for receiving exclusionary discipline.

CHAPTER II

Literature Review

Special Education Law

Before 1975 the United States' public-school systems only educated approximately 25% of children with disabilities, with some States supporting legislation barring children with specific types of disabilities (e.g., emotional disturbance, mental retardation) from enrolling (McBride et al., 2011). However, a landmark Supreme Court ruling against racial discrimination (e.g., *Brown v. Board of Education*, 1954) motivated parents of children with disabilities to also challenge discriminatory practices under the equal protection clause of the 14th Amendment. The case decisions of *Pennsylvania Association for Retarded Children (P.A.R.C.) v. Commonwealth of Pennsylvania* (1972) and *Mills v. Board of Education of District of Columbia* (1972) ultimately became watershed moments for the establishment of legal protections for students with disabilities that ensured access to a FAPE (Jacob et al., 2016).

Originally introduced as a senate bill in 1972, the EHA was signed into law in 1975. Although previous attempts had been made to assist handicapped children, generally through federal subsidies to offset costs for school districts (i.e., Elementary and Secondary Education Act, 1965), the EHA (1975) was the first legislation to make receipt of federal funds contingent on the delivery of a FAPE for all students with disabilities. A FAPE was defined within the EHA (1975) as:

Special education and related services which (A) have been provided at public expense, under public supervision and direction, and without charge, (B) meet the standards of the State education agency, (C) include an appropriate preschool, elementary, or secondary school education in the State involved, and (D) are provided in conformity with the individualized education program required under section 614. (89 STAT. 775)

The EHA provided legal protections to children from the ages of three to 21.

Furthermore, the EHA also mandated students receive unbiased assessment before placement, the right to due process, and receipt of education in the least restrictive environment (LRE; McBride et al., 2011).

First National Research Council Study of Disproportionality

Although the EHA (1975) provided access to education and legal protection for individuals who previously were discarded, concerns were raised with the over-representation of minority students qualifying for special education. Therefore, in 1979 Congress commissioned the National Research Council (NRC) to conduct a review of literature in an effort to identify variables contributing to the disproportionate representation of minority and male students qualifying for special education, specifically in the category of mental retardation, and to establish unbiased placement criteria for all students (Heller et al., 1982). Using biannual survey data collected by the Office for Civil Rights (OCR), Heller et al. sought to determine the “magnitude of disproportion” within programs designed to educate mildly mentally retarded students by the variables of

race/ethnicity and sex. The OCR survey included roughly one-third of all school districts in the United States and demonstrated that minority students were more likely to qualify for special education as mildly mentally retarded than their White peers. However, the severity of disproportionality was found to vary based on geographical region, school district student population, and percentage of minority enrollment.

Heller et al. (1982) reported higher rates of special education placement in the mildly mentally retarded range for minority students in the southern region of the United States. This trend decreased into the Midwest and the lowest rates were found in the West and Northeast. The lowest rates of disproportion were found in school districts with populations ranging from 1,000 to 3,000 students. The highest disproportion rates were found in school districts with a student population above 30,000. However, for medium to large school districts higher rates of minority student enrollment (50-90%) correlated with lower disproportionality.

Following their data analysis, Heller et al. (1982) proposed six potential causes of disproportional placement for the mildly mentally retarded and grouped them into categories that included: (1) legal and administrative requirements, (2) characteristics of students, (3) quality of the instruction received, (4) possible biases in the assessment process, (5) characteristics of the home and family environment, (6) broader historical and cultural contexts. The legal and administrative category described how independent, state, and local mandates may lead to differing disproportionality rates due to idiosyncrasies within state and local policy, some even incentivizing overcounting of

students qualifying for special education by funding being distributed according to the student population. The characteristics of students category discussed how individual biological and emotional characteristics, specifically during early grades, may affect disproportionality. The quality of instruction received category discussed the relationship between poor academic performance and referral for testing. Heller et al. stated that poor academic performance makes the student more likely to be assessed for mild mental retardation and reported that poor performance should not only be attributed to the student but also their poor academic opportunities and instruction, as well. The possible bias in assessment category cited the likelihood that the standardized measures of cognitive abilities being utilized may not accurately reflect the abilities of culturally diverse learners. The characteristics of the home and family environment category highlighted parent styles and their relation to socioeconomic status and the effect on academic performance and school behavior. Finally, the broader historical and cultural contexts category discussed the impact of the broader culture of diverse students and the complex effects of being a member of a group of minority status.

As their report concluded, Heller et al. (1982) provided recommendations designed to improve special education instruction as well as the referral, assessment, and placement processes. Researchers provided six general recommendations. General education teachers should provide differential instruction and attempt multiple interventions prior to referral for assessment. The duty also falls on administrators and school board members to provide adequate resources so that these demands may be met

in general education classrooms. Assessment specialists were encouraged to assure reliable and valid measures were utilized during the process. Individualized education program (IEP) teams were to only identify a student for special education if it led to access to services that have been demonstrated to improve educational outcomes. All students in special education should receive high-quality and differential instruction that is not accessible in general education. Local school districts were called to demonstrate annually that individual students still required special education placement and adequate and accurate data were to be reported and analyzed at the local and state level to monitor trends of potential inequity.

IDEA 1990 & 1997

Following Heller et al., (1982) changes were made to federal special education law. In 1990, amendments were passed to the EHA (1975) including the name being changed to the Individuals with Disabilities Education Act (IDEA, 1990). Notable amendments included in IDEA (1990) were the replacement of the term *handicapped* with *disability*, the addition of two qualification categories (e.g., autism and traumatic brain injury), and mandated transition plans for all children age 14 and older (McBride et al., 2011). After seven years, IDEA (1997) was reauthorized and amended with the goal of “strengthening academic expectations and accountability” for the students served through special education services (Jacob et al., 2016). In an effort to achieve these goals, IDEA (1997) amendments included requirements for all students in special education to be included in state and districtwide assessments, measurable goals be included within

each individualized education plan (IEP), along with the introduction of functional behavioral assessments (FBA) and behavior intervention plans (BIP) for students with emotional and/or behavioral needs (McBride et al., 2011). Also included in the IDEA (1997) amendments was a requirement for all State education agencies to monitor “significant disproportionality based on race” through the collection and analysis of data at the local education agency (LEA) level (Sullivan & Osher, 2019). If it were determined significant disproportionality existed, the State and LEA were subject to review and potential revision of “policies, procedures, and practices” utilized in the qualification, placement, and discipline of students in special education (IDEA, 1997).

Second National Research Council Study of Disproportionality

Following the report by Heller et al., (1982) levels of disproportionality within special education persisted. Therefore, U.S. Congress in 1999 again commissioned the NRC to investigate the factors contributing to disproportionality and identify objective assessment and placement practices that would not lead to the continued disproportionate placement of minority and male students in special education (Donovan & Cross, 2002). Donovan and Cross utilized national datasets, one reported by OCR and the other from the Office of Special Education Program (OSEP) and targeted their analysis on factors contributing to student achievement. Student achievement was evaluated through three lenses: child characteristics (i.e., biology, family, community makeup), teacher characteristics (i.e., teaching style, background, education), and classroom characteristics (i.e., size, resources, curriculum). Each of the three student achievement lenses was then

evaluated as to how they were affected by the broad social and educational policy.

Donovan and Cross (2002) concluded that all three lenses, within the context of overarching social and educational policy, contribute to student achievement.

Regarding disproportionality, the report highlighted the inability of schools to implement early intervention and prevention procedures, specifically in the areas of reading and behavior. The report stated that schools should do more to “ensure that students receive quality general education services” in an effort to reduce the number of students who are referred and later qualify for special education services.

Recommendations for federal guidelines included a policy that mandated schools to demonstrate that students had failed to respond to “high-quality” interventions before referral for assessment. Furthermore, states should be required to implement procedures that utilize functional assessments that “promote positive outcomes” for students already identified with a disability through a multitiered system of support (Donovan & Cross, 2002, p. 8). Also included were recommendations to provide community services to families and parents. The report of Donovan and Cross (2002) led to amendments to the most current form of special education law.

IDEA 2004

In 2004, the Individuals with Disabilities Education Improvement Act (IDEA, 2004) was ratified and remains the active version of the law. Similar to its predecessors (i.e., EHA, 1975; IDEA, 1990, 1997), IDEA (2004) may supplement additional costs accrued by educating students with disabilities by providing up to “40% of the average

per-pupil expenditure ... multiplied by the number of children ages three to 21 with disabilities in the state” to States that meet guidelines for FAPE (118 STAT. 2663). The IDEA (2004) defined FAPE as:

Special education and related services that (A) have been provided at public expense, under public supervision and direction, and without charge; (B) meet the standards of the State educational agency; (C) include an appropriate preschool, elementary, or secondary school education in the State involved, and (D) are provided in conformity with the individualized education program required. (118 STAT 2653-2654)

Amendments to the 2004 law were in response to congressional pressure to improve educational outcomes for students with disabilities. Specifically, improvements targeted increasing academic expectations, mandating general education access and positive behavior interventions and supports (PBIS), transforming the working definition of special education to a set of services rather than a location within the school, and supporting early intervention procedures (Jacob et al., 2016). Furthermore, expectations for appropriate programming designed to meet the needs of the growing culturally and linguistically diverse student population were developed.

The IDEA (2004) requires all State and LEAs to report demographic and programming data for all students receiving special education services. Should a State determine “significant disproportionality” regarding the outcome of procedures used to identify individuals with disabilities they are then responsible for a review and correction

of their procedures to be monitored by the Secretary of the Interior. Furthermore, in response to a determination of “significant disproportionality” States are required to allocate 15% of federal funds to implement early intervention services for nondisabled students.

The 2004 reauthorization of IDEA is divided into four parts: Part A, General Provisions; Part B, Assistance for Education of All Children with Disabilities; Part C, Infants and Toddlers with Disabilities; and Part D, State Program Improvement Grants for Children with Disabilities. Part B and C contain the legal regulations required to be met to receive allotted federal funding. Part B addresses all children with disabilities ages three through 21. Part C addresses all children with disabilities under the age of three. Final regulations for Part B and C were published by the DOE in 2006 and 2011, respectively.

Full Individual Evaluation. For a student to qualify for special education and related services through IDEA (2004) they must meet the standards of at least one of 13 categories. These categories include: (1) Autism (AU), (2) Deaf-Blindness, (3) Deafness, (4) Emotional Disturbance (ED), (5) Hearing Impairment, (6) Intellectual Disability (ID), (7) Multiple Disabilities, (8) Orthopedic Impairment, (9) Other Health Impairment (OHI), (10) Specific Learning Disability (SLD), (11) Speech or Language Impairment, (12) Traumatic Brain Injury (TBI), and (13) Visual Impairment. To assure appropriate determinations and placement of students, IDEA (2004) Part B tasks individual States to develop a policy for full and individual evaluations (FIE). The FIEs are designed to

objectively determine the presence of at least one of the 13 disabilities along with the individual student's educational needs (Jacob et al., 2016). All FIEs must be completed within a State-mandated timeline prior to the initial meeting to determine the presence of a disability and cannot be initiated without parental consent. The IDEA (2004) requires individuals conducting FIEs to:

Use a variety of assessment tools and strategies to gather relevant functional, developmental, and academic information about the child, including information provided by the parent that may assist in determining whether the child has a disability ... including information related to enabling the child to be involved in and progress in the general curriculum ... not use any single procedure as the sole criterion for determining whether the child has a disability or determining an appropriate educational program for the child; and use technically sound instruments that may assess the relative contributions of cognitive and behavioral factors, in addition to physical or developmental factors. (118 STAT. 2704-2705)

Furthermore, all tools utilized during the assessment must be determined to be valid for the intent and purpose of special education determination, and the student must be assessed in all suspected areas of disability.

Individualized Education Program. Following the completion of an FIE, the determination of the presence of a disability is made by a team of professionals and the individual's parent. The makeup of the team will vary dependent upon the presenting needs of the individual student but generally consists of a general education teacher,

special education teacher, LEA representative, a qualified assessment professional with knowledge to interpret results, the parent, and if appropriate, the student (IDEA, 2004). A meeting is held, generally referred to as an IEP meeting, with all team members present where relevant assessment and educational data are presented. Within the initial IEP meeting, a determination of the presence of a disability and educational need is made. If it is determined that a disability is present along with an educational need, an IEP is constructed.

The IDEA (2004) defines an IEP as “a written statement for each child with a disability” that is developed according to specific procedures in accordance with Federal and State law (118 STAT. 2655). To remain legally defensible the IEP must contain a range of information, this information includes: the student’s present levels of academic and functional performance, how the disability affects progression through the general curriculum, measurable annual goals as well how the goals will be measured, a description of evidence-based interventions and related services to be implemented, a specific statement identifying the time that will be spent outside of the general education setting, a description of any accommodations to be made to state and districtwide assessments, and the date services will begin (Jacobs et al., 2016). Once completed and agreed upon by the LEA and parent, the IEP is signed and becomes a legal document of services to be provided to the individual student.

Least Restrictive Environment. As previously stated, prior to legal intervention (e.g., EHA, 1975) children with disabilities were either subjugated to specific classrooms

or denied access to public education. In an effort to curb these de facto educational segregations, legal mandates were passed requiring school districts to educate children with disabilities in their least restrictive environment (LRE). The IDEA (2004) defines an LRE as:

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are nondisabled; and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (118 STAT. 2677)

Overall, in response to the IDEA (2004) mandates most LEAs created a continuum of placements for students with disabilities. These continuums generally range from the student being educated full-time in the general education setting with accommodations in place, to providing instruction in the students' home, or in hospitals. Individual student's LRE is decided by an IEP committee and is then clearly documented within the formal, written IEP.

Discipline. Restrictions on discipline practices were introduced with the EHA (1975) in an effort to prevent LEAs from restricting students with disabilities from accessing a FAPE through exclusionary discipline measures (i.e., suspension, expulsion). This sentiment has continued through the IDEA (2004) with measures of protection for

students who qualify for special education services. The responsibility falls on LEAs to monitor discipline for all students served under special education. Generally, all students with disabilities may be disciplined as their non-disabled peers and not receive special education services, including being removed from their LRE, as long as a change of placement (CP) has not occurred. The IDEA (2004) defines a CP as:

The removal is for more than 10 consecutive school days; or the child has been subjected to a series of removals that constitute a pattern – because the series of removals total more than 10 consecutive school days in a school year; because the child’s behavior is substantially similar to the child’s behavior in previous incidents that resulted in the series of removals; and because of such additional factors as the length of each removal, the total amount of time the child has been removed, and the proximity of the removals to one another. (118 STAT. 2727)

If at any point the LEA determines a student’s discipline has resulted in a CP, or if the student’s behavior included drugs, weapons, or caused significant injury to self or others, a manifestation determination review (MDR) must be held.

An MDR is conducted with all the members of the student’s IEP committee and must be held within 10 days of the decision that resulted in a CP. Within the MDR, the IEP committee reviews all relevant student information, including the IEP, to determine if the student’s behavior that resulted in disciplinary action possesses a “direct and substantial relationship” with the disability or if the behavior is a “direct result of the district’s failure to implement the IEP” (IDEA, 2004). If the IEP committee determines

that the behavior is a manifestation of the student's disability or the IEP was not correctly implemented the student must be returned to their LRE. In contrast, if the behavior is not determined to be a manifestation of the disability and the IEP was appropriately implemented the student may be disciplined as a non-disabled peer. However, regardless of the result of the MDR students with disabilities must continue to receive all accommodations and services outlined in their IEP so that they may continue to work towards annual academic and behavioral goals (IDEA, 2004). Furthermore, should the result of an MDR be that the behavior resulting in disciplinary action is a manifestation of the disability, the IDEA (2004) requires a functional behavioral assessment (FBA) be completing along with an accompanying behavior intervention plan (BIP).

The creation of legislation protecting and providing services for individuals with disabilities was instituted in an effort to promote equity through education for all citizens. However, the application and interpretation of these laws have arguably led to continued segregation and reception of below-average to poor instruction for the group of individuals it was designed to protect (Donovan & Cross, 2002; Heller et al., 1982). Research attempting to identify factors contributing to levels of disproportionality in special education has spanned decades and has generally failed to find consistent results (Waitoller et al., 2010).

Disproportionality Within Special Education

Disproportionality within special education refers to group-level (e.g., ethnicity) differences in identification for services (Coutinho et al., 2002; Sullivan & Proctor,

2016). Included in this definition is the under- and overrepresentation of students from historically marginalized sociodemographic backgrounds and their outcomes (Sullivan & Osher, 2019). Although disproportionality may not be inherently insidious, decades of research postulates that disproportionality is a result of implicit and explicit racism and bias at systemic and individual levels resulting in continued segregation along with receipt of lower-quality education (Dunn, 1968; Donovan & Cross, 2002; Artiles et al., 2003; Waitoller et al., 2010; Sullivan & Proctor, 2016). In response, federally commissioned research (Heller et al., 1982; Donovan & Cross, 2002) has sought to identify variables contributing to inequities within special education. Furthermore, federal law (EHA, 1975; IDEA, 1997, 2004) has been enacted to provide individual student protections and mandate state and local accountability. Although there is little consensus regarding the root cause of disproportionality (Cruz & Rodl, 2018; Morgan et al., 2015; Morgan & Farkas, 2016) general agreement among experts is that it is in large part due to poor identification, assessment, and placement practices (Sullivan & Proctor, 2016).

Dunn (1968) is widely credited with the first published critique of the disproportionate placement of specific student groups into special education. In his article, he speculated that 60-80% of students identified as “mildly mentally retarded” and placed in segregated educational settings were from low-status backgrounds which included race, English language proficiency (ELP), and socioeconomic status (SES). Dunn also believed that the labeling of children who were not severely disabled as

handicapped resulted in a bevy of negative social, emotional, and educational consequences. Dunn advocated for students identified as “mildly mentally retarded” to be primarily served in a general education setting citing a lack of evidence supporting any benefit of special education placement.

Following Dunn’s (1968) commentary, empirical disproportionality research grew slowly and has largely been grouped into three styles: (1) analysis of sociodemographic variables, (2) review of race with historical context, and (3) analysis of professional practice in referral and identification of students (Waitoller et al., 2010). Within the first style, researchers have described the severity of disproportionality and attempted to identify variables that consistently lead to special education placement. The second style provides context to the progression of race relations within public education. Finally, the third style attempts to identify racism and bias within referrals and assessments that lead to special education placement.

Analysis of Sociodemographic Variables

Using large samples of archival data from National (Artiles et al., 1998; Artiles et al., 2005; Coutinho, Oswald, Best, & Forness, 2002; Coutinho, Oswald, & Best, 2002; Hosp & Reschly, 2004; Morgan et al., 2015; Yeh et al., 2004; Zhang & Katsiyannis, 2002) and State (Argulewicz, 1983; Artiles et al., 2005; Delgado & Scott, 2004, Skiba et al., 2005; Sullivan, 2013; Sullivan & Artiles, 2011; Sullivan & Bal, 2013) reports, researchers have analyzed a range of individual, educational, and environmental variables in an effort to measure their effect on special education placement. Overall, when

analyzed through broad sociodemographic categories (i.e., ethnicity) studies have provided a consistent picture of disproportionality nationwide (Artiles et al., 2005). Nationally, results have reliably demonstrated overrepresentation of Black and Native American students within the high incidence categories of emotional disturbance (ED), ID, and SLD (Sullivan & Bal, 2013). However, investigations at the district level that include environmental variables, along with within-group analysis of broad demographic categories have failed to provide the same consistent results (Artiles et al, 2005; Hibel et al., 2010; Morgan et al., 2015).

English Language Proficiency. Studies evaluating disproportionality among Latinxs demonstrated significant within-group effects by analysis of English language proficiency (ELP) (Argulewicz, 1983; Artiles, 2005). Argulewicz (1983) sought to determine rates of special education placement by ethnicity. Although Hispanics were placed in special education at a higher rate than White and Black students, the difference failed to reach statistical significance. However, within-group analysis demonstrated that Hispanics whose primary language was Spanish had a significantly higher rate of special education placement than anyone else. These results are congruent with more recent studies examining the effects of ELP within disproportionality (Artiles, 2005; Coutinho, Oswald, Best, & Forness, 2002)

Artiles (2005) reviewed data from 11 urban school districts in Southern California to examine the effects of ELP on levels of disproportionality, along with elements of social class and general patterns of special education placement. Although the sample

heavily favored low-SES, minority, and Latino students, a range of data within the ELL category allowed for within-group analysis. Artiles analyzed the ELL category by language proficiency within student's first language (primarily Spanish) and second language (English). Overall, results showed ELLs were underrepresented at the elementary level and overrepresented at secondary levels. Furthermore, results of within-group analysis indicated levels of proficiency within the primary and secondary language affected the likelihood of special education placement. Students who were not proficient in either language were the most likely to be placed in special education followed by students not proficient in the secondary language.

Socioeconomic Status. A general assumption is that disproportionality is in large part due to the high levels of poverty found in minority communities. However, studies measuring the effect of SES at the individual (Artiles, 1998; Kincaid & Sullivan; 2017; Morgan et al., 2015; Skiba et al., 2005; Sullivan & Bal; 2013) and environmental (Argulewicz, 1983; Coutinho, Oswald, Best, & Forness, 2002; Coutinho, Oswald, & Best, 2002; Hosp & Reschly, 2004) level have provided inconsistent findings. Generally, SES has been operationalized at the individual level as a receipt of free and reduced lunch, and at the environmental level as the median income of school campuses or districts. Overall, conclusions regarding the significance of SES and its relationship with disproportionality have been difficult to widely replicate.

Investigations by Artiles (1998) and Sullivan and Ball (2013) reported significant effects of individual-level SES on the risk of special education placement. Utilizing a

representative sample of the National Education Longitudinal Study database, Artiles reported a significant disability status, SES main effect. Overall, students placed under the LD category had lower incomes than students who were not LD. Congruent results were reported from Sullivan and Bal after a review of a large Midwestern school district. Results indicated that students from low-SES backgrounds were at the greatest risk for special education placement (Sullivan & Bal, 2013). However, additional studies analyzing the effects of individual-level SES have reached opposing conclusions.

Skiba et al. (2005) reviewed statewide reports from three Midwestern states to examine poverty in-depth and report on its relationship with special education placement. Overall, Skiba et al. found individual-level SES to be a weak and inconsistent predictor of special education placement. Only within the ID special education category did increased levels of poverty result in higher rates of placement in special education. These results are consistent with studies conducted by Morgan et al. (2015) and Kincaid and Sullivan (2017). Morgan et al. reported no relationship between individual levels of SES and special education placement. Furthermore, Kincaid and Sullivan found individual levels of SES provided no predictive value in regards to disproportionality.

Researchers have also investigated the relationship between environmental-level SES factors and disproportionality (Argulewicz, 1983; Coutinho, Oswald, Best, & Forness, 2002; Coutinho, Oswald, & Best, 2002; Hosp & Reschly, 2004; Sullivan & Artiles, 2011). Coutinho, Oswald, Best, and Forness (2002) and Coutinho, Oswald, and Best (2002) published two independent studies utilizing the same nationally

representative dataset, each reporting environmental-level SES significantly affected rates of special education placement. Argulewicz (1983), also reported significant effects of environmental-level SES on rate of special education placement, specifically with students whose primary language is Spanish. Furthermore, Hosp and Reschly (2004), found community economic variables to be the strongest predictors for students qualifying for special education within the ID category. Each study reporting a positive relationship between levels of poverty and rates of special education placement.

Although a preponderance of research indicates environmental-level SES variables maintain a significant relationship with levels of disproportionality, Sullivan and Artiles (2011) reported evidence to the contrary. Utilizing statewide data reported by the State of Arizona, researchers sought to identify variables related to rates of special education placement. Although their results also indicated an overall positive correlational relationship between levels of poverty and special education placement, the relationship failed to reach significance. Overall, Sullivan and Artiles reported their environmental-level SES variable to be a weak predictor of disproportionality.

Ethnicity at the District Level. The percentage of school district and individual campus minority enrollment has been demonstrated to affect rates of placement across special education categories (Coutinho, Oswald, Best, & Forness, 2002; Coutinho, Oswald, & Best, 2002; Hibel et al., 2010; Sullivan, 2013). Studies utilizing nationally representative samples investigating rates of placement within the SLD (Coutinho, Oswald, & Best, 2002), ED (Coutinho, Oswald, Best, & Forness, 2002), and AU

(Sullivan, 2013) categories all demonstrated a negative relationship between percentage of minority population and rate of placement. Therefore, the smaller the minority population of a school district or campus the more likely minority students are to be qualified for special education. Researchers (Hibel et al., 2010) posit that these data account for findings of conflicting empirical studies (Morgan et al., 2015; Morgan & Farkas, 2016) that report there is no relationship between ethnicity and rates of special education placement.

Research conducted by Hibel et al., 2010, sought to predict special education placement through the empirical analysis of individual and environmental variables. Overall, Hibel et al. reported minority students were equal or less likely to be placed in special education when compared to White control groups although final results demonstrated ethnicity to be a significant predictor of special education placement. Researchers postulated that these results could be explained by a “frog-pond contextual effect.” The term frog-pond effect was originally coined by Davis (1966) to describe how individuals are more likely to compare their abilities to those in one’s immediate surroundings rather than a more representative sample. Hibel et al. (2010) utilized the same theory to explain the results of their multilevel regression analysis of variables. Analysis at the environmental level showed the ethnicity, special education placement relationship was significantly mediated by the percentage of minority student enrollment variable. In other words, minority students were less likely to be placed in special education when they attend school with higher percentages of minority student

populations. Therefore, due to the fact minority students are more likely to attend schools with higher minority populations their overall rate of special education placement will be reduced.

Academic Achievement. Measures of academic achievement have been demonstrated to be an inconsistent predictor of special education placement. Studies by Artiles et al. (1998) and Hibel et al. (2010) utilized samples from national databases to identify individual-level special education placement predictors. Both studies found results of standardized measures of academic achievement to possess a significant effect on student placement. Artiles et al. (1998) reported a significant reading achievement main effect between groups of students who were identified as SLD and students who were not SLD, with mean reading achievement scores being higher among students not identified as SLD. Furthermore, Hibel et al. (2010) reported student's level of academic achievement when entering kindergarten to be the strongest predictor of later special education placement, with students who produce higher scores being less likely to be placed. Similar studies failed to report congruent findings (Hosp & Reschly, 2004; Skiba et al., 2005).

Skiba et al. (2005) attempted to identify sociodemographic variables that accounted for disproportionate levels of special education placed specifically among Black students. Their results indicated that although outcomes of academic achievement measures were affected by levels of poverty, academic achievement scores failed to possess a strong and predictive relationship with special education placement among

Black students. Consistent results were also reported by Hosp and Reschly (2004) who evaluated results of academic achievement measures as a group variable. Results indicated that measures of academic achievement maintained a significant relationship with special education placement but only within specific special education groups (i.e., ID, ED, SLD) and specific ethnic categories (i.e., Black, Asian/Pacific Islander).

Review of Race in Historical Context

Two studies investigated disproportionality through traditional sociological perspectives by examining the effects of racial power and political influence on educational practices (Eitle, 2002; Ong-Dean, 2006). Both studies utilized similar individual and environmental demographic variables as studies in the previous section, however, researchers operated from a perspective that relevant racial and political power structures ultimately determined demographic outcome discrepancies. These individual and environmental demographic variables along with the power and political structures were believed to strongly affect school districts and the individuals who operated within.

Eitle (2002) investigated racial and political structures, economic structures, school district structures, and racial segregation policies and their relationship with levels of disproportionality among Black students identified as ID. Combining data from three national reports completed by the OCR and NCES a nationally representative sample of 981 school districts was utilized. School district structures were conceptualized then operationalized as size (e.g., enrollment), location (e.g., rural, urban, suburban), special education capacity (e.g., proportion of SPED students receiving services outside the

district), and minority representation (e.g., proportion of Black enrollment). Racial and political structures were conceptualized then operationalized as White and Black economic resources (e.g., median income) and Black political resources (e.g., proportion of head of households with a college degree). School desegregation was conceptualized then operationalized as between-school segregation (e.g., Index of Dissimilarity), legally mandated segregation (e.g., de jure segregation), and White population enrolled in private schools.

The results reported by Eitle (2002) indicated that Black students were overrepresented in 90% of included school districts, as well as being 86% more likely to be placed in special education when compared to White controls. Furthermore, environmental factors such as Black economic resources, desegregation policies, district minority representation, and special education capacity accounted for more than 37% of the variance. Overall, as the proportion of the Black student population increases the rate of ID qualification decreased, but the strength of the relationship was mediated by local desegregation policies. This is believed to be due to the fact that if minority representation is higher in a school district it is generally due to White families leaving the area leading to de-facto segregation. The author also reported higher rates of ID qualifications for Black students in the South due to previous widespread de jure segregation.

A study conducted by Ong-Dean (2006) examined rates of SLD qualification through a historical perspective. Using OCR reports from the state of California from the

years of 1976, 1986, and 1998 large samples were analyzed through categories of race and privilege and their relationship with LD qualifications. Overall, rates of SLD qualification for White students decreased as the years progressed while rates of SLD qualification increased for Latino and Black students. Ong-Dean concluded that these data were the result of shifting cultural dynamics. During the '70s the SLD qualification was reported to be viewed as a primary diagnosis for White students of privilege to access additional academic supports. As the years progressed, the SLD qualification became more stigmatized as educators began qualifying more minority students in response to political pressure to reduce the rates of minorities qualified as ID.

Analysis of Professional Practice in Referral and Identification

An effort has been made to identify racism and bias within special education referral, assessment, and placement procedures. Studies have examined the effects of explicit racism and subconscious bias within special education identification procedures (Cullinan & Kauffman, 2005; Prieto & Zucker, 1981; Shinn et al., 1987; Tobias et al., 1982; Tobias et al., 1983). Researchers have also evaluated bias within standardized cognitive and achievement measures (Braden & Weiss, 1988; Palmer et al., 1989). Furthermore, studies have analyzed error and bias within education professionals who participate in IEP meetings and determine placement for students (Figueroa & Newsome, 2006; Gravois & Rosenfield, 2006; Wilkinson et al., 2006; Overton et al., 2004). Overall, bias within the special education qualification process was inconsistently identified.

Bias in Referral. Studies by Prieto and Zucker (1981), Tobias et al. (1982), and Tobias et al. (1983) created vignettes of students from varying racial identities in an effort to identify bias within individuals referring students for special education assessment. Each also utilized samples of graduate students with prior teaching experience who provided results by completing a Likert scale. The vignettes of Prieto and Zucker were differentiated by race, one scenario of a White student and the other Latino, specifically Mexican American. Participants were asked to read the scenario and determine if they would recommend the child be placed in special education under the ED category. The Mexican American students were found to be recommended for special education significantly more than the White students (Prieto & Zucker, 1981). However, results reported by Tobias et al. (1982) and Tobias et al. (1983) failed to support Prieto and Zucker's finding.

Tobias et al. (1982) expanded on work by Prieto and Zucker (1981) by including the variable of the rater's race into their analysis on special education referral determination. Overall, there were no significant differences in referral determination based on the student's race. Although White raters were more likely to recommend a student be referred for special education assessment there were no differences found across the race of the student vignette. Significant results did indicate however that when the race of the rater and the race of the student matched special education recommendations were less likely to be made.

Tobias et al. (1983) sought to replicate findings made by Tobias et al. (1982), although ultimately unsuccessful. Overall, there was no significant relationship demonstrated when the race of the rater and the race of the student matched. White raters were again the most likely to recommend special education evaluation and results failed to demonstrate rates of special education referrals differed based on the race of the student. An addition to the Tobias (1983) study included the teaching experience of the rater. The inclusion of this variable demonstrated teachers with special education experience were more likely than raters who had none to refer a student for evaluation.

Cullinan and Kauffman (2005) analyzed levels of bias within teacher's perceptions of students they were currently teaching and who received special education services through the ED category. The study used the Scale for Assessing Emotional Disturbance (SAED; Epstein & Cullinan, 1998), which operationally defines all five characteristics of the ED category (IDEA, 2004). Overall, 796 educators of Black and White students with an ED completed the SAED. The results demonstrated that teacher perspectives varied across ED characteristics but not between races. Raters' perceptions failed to significantly differ between White and Black students. However, both Black and White raters had elevated scores for White students within the Unhappiness and Depression and Physical Symptoms of Fears ED characteristic.

Bias in Assessment. Bias within the application of standardized cognitive and achievement measures for the identification of SLDs has been consistently demonstrated, specifically when utilizing a discrepancy model (Braden & Weiss, 1988; Palmer et al.,

1989). Although the practice is no longer as widely used, the discrepancy model determined the presence of a learning disability based on when a discrepancy was found between standard scores of measures of cognitive and achievement abilities. The discrepancy in scores was considered significant when an achievement score of a specific area (i.e., reading) was at least 15 points below the overall score of the cognitive assessment.

Studies conducted by Braden and Weiss (1988) and Palmer et al. (1989) have demonstrated the bias within this practice. Palmer et al. analyzed cognitive and achievement measures from the Kaufman (Kaufman & Kaufman, 1983) and Wechsler (Wechsler, 1974) batteries. The assessment batteries were randomly assigned and administered to White, Black, and Latino students with 38% of the Latino sample identified as ELLs. Results demonstrated that ethnicity and English language proficiency significantly affected scores across batteries. Overall, the Kaufman and Wechsler intelligence batteries over predicted the achievement abilities of Black and Latino students which could ultimately result in higher rates of identification of SLD within the population when using the discrepancy model. Braden and Weiss (1988) arrived at congruent results with their study also demonstrating higher rates of minority identification for SLD in the areas of mathematics and reading when using the discrepancy model.

Bias in Determination. Once referral and assessment measures have been completed educational professionals must analyze data to determine if a student meets

legal requirements to receive services through special education. Generally, these decisions are made within an IEP meeting. During IEP meetings data are presented by a multidisciplinary team with specialized areas of expertise and experience working with the student. Ultimately, all final decisions are made by the LEA and parent, however, how these data are presented and analyzed may greatly affect the outcome of the IEP meeting. Therefore, researchers have sought to identify bias within special education determination decisions (Figuroa & Newsome, 2006; Overton et al., 2004; Wilkinson et al., 2006) as well as to measure the effects of preventative measures on the disproportionate placement of minority students in special education (Gravois & Rosenfield, 2006).

Studies by Figuroa and Newsome (2006) and Wilkinson et al. (2006) analyzed special education reports used in determining qualification and placement for students who were ELL. Overall, results indicated broad legal and ethical errors. Figuroa and Newsome reported 95% of the 19 student files analyzed failed to meet minimum legal standards for assessment of SLD. The most frequent error made by practitioners was failing to gather additional evidence to support findings made by standardized measures of cognitive and achievement abilities. Furthermore, the analysis conducted by Wilkinson et al. showed similar errors, with practitioners most commonly failing to collect corroborating data that matched standardized measures as well as failing to follow-up regarding the existence of comorbid disabilities. Additionally, results from both studies

also reported practitioners frequently failed to assess students in their primary language or use nonverbal measures of cognitive abilities.

In an effort to study the decision-making process of individuals frequently involved in special education determinations, Overton et al. (2004) surveyed school psychologists and educational diagnosticians in South Texas utilizing case summaries. A version of four independent case studies that included hypothetical background information and assessment data were randomly mailed to 93 special education practitioners along with a Likert-scale questionnaire and open-ended questions. Participants were asked to read their case study and then determine if adequate evidence was present for a special education qualification within the category of SLD along with their reasoning. However, each case study failed to include adequate information for a placement recommendation, a request for additional information was regarded as appropriate by researchers. Results showed that case studies that included information regarding the student's language proficiency most often resulted in fewer raters recommending special education. Case studies that included discrepancy data were most often recommended for special education. Overall, Overton et al. reported only 13% of participants responded by stating they desired more information before making a decision.

Researchers have also developed and analyzed the effectiveness of programs specifically designed to reduce biased practices within special education referral and placement that results in disproportionality. Gravois and Rosenfield (2006) studied the

impact of instituting teams within school districts tasked with assisting general education teachers by using objective data collection and analysis procedures along with evidence-based communication practices. These teams were called Instructional Consultation Teams and included professionals that would float between general education classrooms with the goal of assisting teachers to make objective educational decisions for each student. Furthermore, although the purpose of the study was to measure the effects of the consultation teams on levels of disproportionality, no direct instruction was provided to any consultation team member regarding practice with minority students. Overall, results demonstrated a lower risk index (RI) and odds ratio for minority students being placed in special education after two years of the Instructional Consultation Team being implemented.

Disproportionality in Discipline

Exclusionary discipline practices (i.e., out-of-school suspension, expulsion) are currently used by LEAs in response to student misconduct at an accelerating rate (Sykes et al., 2015). National reports for the 2013-2014 school year estimate that of the students attending public schools, 2.8 million (6%) were suspended at least one day (DOE, 2018), and 111,000 were expelled (Civil Rights Data Collection [CRDC], n.d.). These practices continue despite an absence of supporting empirical evidence. In fact, significant evidence exists suggesting students who receive exclusionary discipline demonstrate lower academic achievement (Arcia, 2006; Balfanz et al., 2015; Ginsburg et al., 2014; Noltemeyer et al., 2015) display higher rates of problem behavior (Hemphill et al., 2006;

Tobin et al., 1996), are more likely to drop out (Marchbanks et al., 2015; Suh & Suh, 2007), and come in contact with law enforcement more frequently (Christle et al., 2005; Fabelo et al., 2011; Mowen & Brent; 2016).

Furthermore, these exclusionary discipline practices and their negative outcomes are disproportionately levied against students of minority status. Nationally, during the 2013-2014 school year Black students were suspended or expelled at a rate three times higher than White students, 16% for Black students and 5% for White students (DOE, 2018). Further analysis completed by the CRDC (n.d.) report Black students of both sexes are suspended or expelled at a rate higher than any other race/sex student combination, 20% for Black males and 12% for Black females. Moreover, while only representing 16% of the total population, Black students accounted for 27% of students referred to law enforcement and 31% of school arrests (DOE, 2018). Rates of disproportionality were also observed with Native Alaskan and American Indian students receiving 2% of the national suspensions and 3% of the national expulsions while only accounting for 1% of the total student population (DOE, 2018). However, no disproportionality in rates of exclusionary discipline for ELL or Hispanic students was observed when these data are analyzed nationally (DOE, 2018).

Disproportionate rates of exclusionary discipline practices were also observed for students with disabilities. Data released by the DOE (2018) indicate students with disabilities are suspended at a rate twice as high as students without disabilities, 13% to 6%. An analysis by disability, race, and sex demonstrates that when excluding Latino and

Asian-American students, over 25% of male students from minority backgrounds who receive special education services are suspended and nearly 20% of females of minority backgrounds who are disabled are suspended. The presence of disproportionality continues when evaluating those who are referred to law enforcement, are restrained, or placed into seclusion. Students served under IDEA (2004) accounted for 25% of all arrests and law enforcement referrals while only accounting for 12% of the total population. Furthermore, disabled students accounted for 58% of all students involuntarily placed in seclusion and 75% of physically restrained students.

Discrepancies regarding exclusionary discipline within students identified as disabled are also most glaring for those categorized as Black. Overall, Black students with disabilities who received special education services were suspended at a rate four times higher than their White disabled peers during the 2011-2012 schoolyear (Losen et al., 2014). These same data reported that 25% of Black males with a disability were suspended at least once during 2011-2012. During the 2014-2015 school year, Black students were placed in alternative educational settings and arrested at school at a rate three times higher than White students with disabilities (Losen, 2018). It should also be mentioned that data reported in a national average modality conceal instances of severity. For example, during the 2009-2010 schoolyear, 1,136 school districts in the United States reported having at least 50 Black males who qualified for special education services (DOE, 2014). Of the 1,136 school districts, 211 districts reported a suspension rate of over 50% for their Black males with a disability attending secondary schools.

Academic Achievement

Exclusionary discipline practices remove students with disabilities from their LRE and result in higher rates of lost instruction compared to non-disabled peers. Losen (2018) estimates that for every 100 students with disabilities in the U.S. an average of 56 days of instruction is missed each school year. These same data also demonstrate additional disparity for Black disabled students, as they are estimated to lose an average of 77 more days of instruction than White disabled students. Empirical investigations have consistently demonstrated a negative relationship between lost instruction time and variables of academic success (e.g., state assessment, graduation rate; Arcia, 2006; Balfanz et al., 2015; Ginsburg et al., 2014; Noltemeyer et al., 2015; Skiba, 2015).

Longitudinal studies by Arcia (2006) and Balfanz et al. (2015) examined the relationship between exclusionary discipline practices, specifically OSS, and immediate and long-term academic achievement. Arcia (2006) followed a cohort of 7th graders across three consecutive school years. It was found that students who received OSS in the first year of the study had significantly lower standardized reading achievement scores than their peers who were not suspended, with scores decreasing as the total days in OSS increased. Overall, students who received OSS in the first year of the study were more likely to receive OSS in the third year with reading achievement scores continuing to be significantly lower. Balfanz et al. (2015) found congruent results with their cohort of 9th graders that were followed through their expected high school and post-secondary graduation rates. Results demonstrated that a negative relationship between OSS and high

school and post-secondary graduation rate. Following only one OSS: high school graduation rate dropped from 75% to 50%, post-secondary enrolment rate dropped from 58% to 39%, and post-secondary graduation rate dropped from 75% to 52%.

A metanalysis by Ginsburg et al. (2014) and Noltemeyer et al. (2015) further demonstrates the preponderance of evidence highlighting the negative academic outcomes related to exclusionary discipline practices. Ginsberg et al. (2014) evaluated state-level and national achievement testing data. The findings demonstrated that across demographic and regional variables students who miss instructional time consistently score lower on standardized measures of achievement. A study by Noltemeyer et al. (2015) analyzed the reported results of academic achievement following several forms of exclusionary discipline (i.e., OSS and ISS) for statistical significance and effect size. Overall, results demonstrated consistent significant and moderate-to-strong effect sizes for a negative relationship between exclusionary discipline and measures of academic achievement. Regardless of exclusionary discipline modality, the practice leads to lower achievement and higher rates of school dropout.

School Dropout

A report in 2008 showed high school dropout rates are higher for Black (9.9%) and Hispanic (18.3%) students compared to the 8% U.S. national average, a trend that has been consistent over the past 30 years (Chapman et al., 2010). These rates are alarming due to the long-term cost of dropping out (e.g., lower average income, higher rates of arrest; Alvarez et al., 2009) leading researchers to work towards identifying factors that

lead students to drop out. Bradley and Renzulli (2011) described students who did not complete high school as either *pushed out* or *pulled out*. Students who are *pulled out* are students who would have been expected to graduate if not for outside circumstances (i.e., pregnancy) and students who are *pushed out* are those who leave school due to feelings of estrangement within the school environment, largely due to exclusionary discipline practices.

A longitudinal study by Marchbanks et al. (2015) sought to quantify the economic effects of exclusionary discipline practices that lead to grade retention and dropping out. Following a cohort in Texas from 7th to 12th grade, Marchbanks et al. determined that exclusionary discipline resulted in 4,700 grade retentions per year due to lost instructional time, costing the State of Texas \$68 million due to delayed entry into the workforce and \$5.6 million in lost tax revenue. Furthermore, an estimated cost of \$41 million was accrued by the State for additional instructional resources. The findings also demonstrated that students who received exclusionary discipline were 29% more likely to drop out. As expected, these exclusionary discipline practices were levied disproportionately upon students of minority status.

Delinquency and Law Violations

Exclusionary discipline practices have not only been demonstrated to negatively affect academic outcomes (Losen, 2018; Marchbanks et al., 2015), they have also consistently correlated with an elevated risk of juvenile delinquency and contact with law enforcement as a minor and adult (Christle et al., 2005; Fabelo et al., 2011; Mowen &

Brent; 2016; Rosenbaum, 2020). A correlational analysis conducted by Christle et al. (2005) demonstrated a positive relationship between rates of suspension at Kentucky middle schools and law violations. Studies utilizing larger samples of national and statewide data have reported similar results while highlighting the arbitrary nature in which exclusionary discipline is levied (Fabelo et al., 2011; Mowen & Brent, 2016; Rosenbaum, 2020).

A large-scale study conducted by Fabelo et al. (2011) analyzed records from individual campuses for all 7th-grade students attending public school in Texas for the schoolyears of 2000, 2001, and 2002. These cohorts were then followed for a six-year period. Researchers were approved access to the State's juvenile justice database to collect school discipline and individual legal records for all relevant participants. Due to the unique sample size researchers were afforded the opportunity to conduct a multivariate analysis and control for over 80 variables.

Several significant results were reported by Fabelo et al. (2011). A staggering finding was the frequency in which exclusionary discipline practices were being levied with approximately 54% of students experiencing at least one day of ISS, 31% receiving at least one day of OSS, 15% spending at least 1 day in an alternative education program (AEP), and 8% placed at least once in a juvenile justice program. However, in stark contrast, only 3% of the corresponding behavior incidents reached a severity level in which State law mandates exclusionary discipline be assigned. Results also demonstrated that exclusionary discipline was not levied objectively. When controlling for 83 other

variables, Black students were 31% more likely to receive exclusionary discipline than their non-Black peers. Furthermore, 75% of students receiving special education services were expelled at least once. Students qualified as ED were most likely to be suspended or expelled and students qualified as ID and AU were the least likely to be expelled.

Fabelo et al. (2011) also reported students who were suspended or expelled were significantly more likely to come in contact with state or county juvenile justice systems the following year. Findings demonstrated that when including the entire sample one in seven came in contact with some form of the juvenile justice system. Of these students, only 2% had no reported school disciplinary action and close to 50% received exclusionary discipline 11 or more times across grades seven through 12. When campus and demographic characteristics were controlled, a student who was suspended or expelled for a discretionary school violation came in contact with the juvenile justice system at a rate three times higher than those who did not receive exclusionary discipline.

Longitudinal studies utilizing national samples conducted by Mowen and Brent (2016) and Rosenbaum (2020) also report increased rates of contact with law enforcement following exclusionary discipline. Utilizing multilevel modeling Mowen and Brent sought to measure the likelihood of arrest over time for students who did and did not receive exclusionary discipline. Their results demonstrated that even when controlling for a variable of delinquency, students across demographic variables who were suspended were significantly more likely to be arrested. Furthermore, a cumulative

effect was reported with students who were suspended more frequently were also arrested at a higher rate.

Rosenbaum (2020) designed a study to compare dueling hypothesis as to why students who are suspended are more likely to attain negative outcomes. The first hypothesis was termed *selection bias* and posed that students who are suspended would have experienced negative outcomes regardless of being suspended. The second hypothesis was termed *secondary deviance* and believed students who are suspended experience higher rates of negative outcomes due to social consequences (i.e., stigma, labeling, reduced professional/educational options). The study matched suspended and non-suspended youth across a national sample and measured a range of outcomes. Overall, Rosenbaum (2020) reported that 12 years after reaching the age of traditional high school graduation, suspended participants were less likely to have graduated from high school or post-secondary schools and were more likely to have been arrested or currently serving on probation. The study matched the suspended and non-suspended groups across 60 demographic and socioeconomic categories and concluded with support for the *secondary deviance* hypothesis. Researchers reported that students who were suspended were more likely to be arrested due to compounding deviant behaviors that were the result of the initial exclusionary discipline.

Accounting for the preponderance of evidence demonstrating not only the ineffectiveness but also the damaging effects of exclusionary discipline on students, specifically students of minority status (e.g., race, disability), the creation and

implementation of alternative discipline strategies have been championed and federally mandated (IDEA, 2004). Rather than reacting to student problem behaviors with punitive measures, systems-level preventative behavior systems have been demonstrated to be more effective (Crone et al., 2015). Known broadly as PBIS, the system is designed to shape and reinforce pro-social behaviors while allowing students to remain within the school setting. Following the IDEA (2004) mandate the overall outcomes of PBIS implementation have been positive (Wang et al., 2020).

Positive Behavior Intervention and Support System

A report completed by the National Center for Educational Statistics (Wang et al., 2020) demonstrates the continued presence of discipline and safety violations within public schools. For the 2017-2018 school year, 80% of school districts reported at least one incident of violence, theft, or other crime, and serious violent crime increased 6% from the 2015-2016 school year. Furthermore, 35% of public schools in the school year 2017-2018 received at least one serious disciplinary action for a specific offense (i.e., suspension, expulsion). However, reported incidents of bullying (29% to 14%) and student verbal abuse of teachers (13% to 6%) decreased in the 2017-2018 school year from the 1999-2000 school year. Also, 88% of surveyed teachers reported they were able to have students regularly follow classroom rules. These negative trends of disruptive and noncompliant classroom behaviors could be contributed to the spread of PBIS systems within public schools (Baule & Superior, 2020).

PBIS is an evidence-based practice that utilizes data to improve student outcomes through behavior modification and environmental change (Carr et al., 2002). PBIS is rooted in principles of applied behavior analysis and values of the person-centered movement in an effort to improve quality of life and decrease problem behavior (Carr et al., 2002). Carr et al. described the goals of PBIS are to improve individuals' quality of life by rendering problem behavior ineffective. The conceptualization and application of PBIS in public schools have evolved since inception into the current state of delivery, which is within a multitiered system of supports (Crone et al., 2015).

Generally, most PBIS are delivered through a three-tiered system that is implemented by an individual campus (Crone et al., 2015). The first tier provides support for all students, the second tier provides targeted interventions and strategies, and the third tier provides specific interventions for students displaying significant behaviors (Sailor et al., 2011). Data are continually collected on all students so decisions regarding tier placement and effectiveness of interventions and supports can be made objectively. Furthermore, the three tiers operate as a continuum, and students are expected to move up and down tiers in accordance with their level of need.

All students on campus receive the primary programming of Tier 1 which must include explicit behavioral expectations delivered through direct instruction (Horner et al., 2010). Students served under Tier 1 are reinforced for meeting behavioral expectations and receive rational consequences for any violations. Implementation of Tier 1 programs is expected to be delivered by all relevant campus staff. Tier 2 services

are designed to provide additional support for students who are failing to meet standards with only Tier 1 services. Generally, Tier 2 services target behavior regulation and include additional resources for the student and staff. Examples of Tier 2 interventions include check-in check-out and targeted social skills instruction (Crone et al., 2015). Should a student continue to display significant problem behaviors with Tier 1 and 2 supports they may be elevated to Tier 3 services that include intense, individual supports. Tier 3 services include wraparound support from school staff, FBA, BIP, and counseling services (Crone et al., 2015; Suh & Suh, 2007).

Tier 3 Services

An FBA is a collection of procedures designed to identify the function of one or more specific or target behaviors. Colloquially, the function of a behavior is “why” the behavior is occurring. Typical procedures of an FBA are to operationally define and document one or more target behaviors and then describe the setting in which the behavior occurs, which will include a list of antecedent and consequent events or stimuli (Cooper et al., 2019; O’Neill et al., 2015). The purpose of the FBA is to inform intervention for the identified target behaviors. The utilization of evidence-based FBA procedures has rapidly spread across professions and is explicitly required in the current authorization of the IDEA (2004) for special education students receiving discipline (O’Neill & Stephenson, 2010). Decades of research have repeatedly established FBAs as best practice for the identification of controlling variables and development of

intervention strategies for problem behaviors (Carr, 1977; Carr et al., 2002; McIntosh et al., 2008; Skinner, 1953).

Data collected through FBA procedures are utilized in creating BIPs for students demonstrating significant problem behaviors. Generally, BIPs consist of a summarized FBA along with explicit descriptions of interventions for the behaviors targeted and analyzed through the FBA (Crone et al., 2015). Proper BIPs identify who will implement the intervention, the style and frequency of data collection, the settings in which the intervention will be administered, and describe follow-up procedures. The overall goal of any BIP is to reduce the occurrences of targeted problem behaviors and increase or develop positive replacement behaviors (Crone et al., 2015). Research has demonstrated that BIPs designed through FBA data can effectively lower the rate of problem behaviors and increase the rate of replacement behaviors (Ingram et al., 2005; Killu, 2008).

Counseling is also a viable Tier 3 option for providing students displaying problem behaviors with positive and preventative services. Counseling services within the Tier 3 PBIS model target specific skills (i.e., social skills) for development through direct instruction and modeling. Research has consistently demonstrated the effects counseling services have in improving student outcomes. A collection of six statewide studies reported decreased rates of discipline and suspension along with increased rates of attendance and achievement scores for students who received counseling services (Carey & Dimmitt, 2012). Furthermore, a review conducted by Whiston and Quinby (2009)

reported large effect sizes for several studies measuring the effects of counseling services on rates of discipline and students' problem-solving abilities.

Significance of Current Study

Exclusionary discipline practices are currently utilized nationwide (DOE, 2018) despite overwhelming research identifying a bevy of negative student outcomes that result from the removal of students from their LRE (Arcia, 2006; Balfanz et al., 2015; Christle et al., 2005; Fabelo et al., 2011; Ginsburg et al., 2014; Marchbanks et al., 2015; Mowen & Brent, 2016; Noltemeyer et al., 2015; Suh & Suh, 2007). Furthermore, national reports have demonstrated that minority students and students with disabilities receive exclusionary discipline at disproportionate rates when compared to their White and nondisabled peers (DOE, 2018). In response, federal legislation (IDEA, 2004) has mandated the use of PBIS for students who qualify for special education services to mitigate the negative effects of exclusionary discipline.

Currently, evidence exists suggesting the implementation of Tier 3 PBIS can result in lower rates of problem behavior (Crone et al., 2015) and has resulted in an overall negative trend regarding disruptive and non-compliant classroom behavior nationwide (Baule & Superior, 2020). This is believed to be due to the development of prosocial replacement behaviors (e.g., social skills, problem-solving; Carey & Dimmitt, 2012; Whiston & Quinby, 2009). However, little to no empirical evidence exists that suggests the implementation of PBIS has resulted in fewer days outside of the LRE for students with disabilities. The purpose of the current study was to examine the

relationship of Tier 3 PBIS services on the number of school days spent outside of the LRE for students qualifying for special education.

Research Questions

The primary research question of the current study sought to determine if students with disabilities who receive Tier 3 PBIS services receive fewer days outside their LRE by exclusionary discipline practices than students who receive no Tier 3 PBIS. The analysis was also conducted to determine if demographic variables (e.g., ethnicity, SES) affected the outcome. The secondary research question examined the accuracy of existing BIPs and their effect on days outside of the LRE for students with disabilities.

Specifically, do students whose BIP targets behaviors that are resulting in school discipline remain in their LRE at a higher rate than students whose BIP does not target behaviors that are resulting in their exclusionary discipline. Finally, researchers sought to determine the level of risk for receiving exclusionary discipline by demographic variables.

Hypothesis Statement

It was hypothesized that students in special education who receive Tier 3 PBIS will spend on average fewer days outside of their LRE than students in special education who receive no Tier 3 PBIS. Furthermore, it was hypothesized that students with a more accurate BIP will also spend fewer days outside of their LRE due to exclusionary discipline. Also, it was expected that students who are of minority and Low SES status will be at the highest risk for receiving exclusionary discipline.

CHAPTER III

Method

Research Design

The research design was a program evaluation of a rural East Texas independent school district's discipline practices for students qualifying for special education. The evaluation sought to determine the extent of disproportionate representation of minority students qualifying for special education receiving exclusionary discipline. Exclusionary discipline was defined as any disciplinary action that resulted in the student being removed from their LRE as stated within their IEP. An investigation into educational and demographic variables and their relationship to disproportionality among special education students receiving exclusionary discipline was also completed. Results were analyzed and reported through descriptive statistics (i.e., means, percentages, ratios) and independent sample t-tests for measures of significance between means. T-tests were conducted through IBM SPSS Statistics for Windows, version 25 (IBM Corp., Armonk, N.Y., USA). All data were collected and analyzed following Stephen F. Austin State University Institutional Review Board (IRB) written approval.

Variables

Educational Variables

Three educational variables related to the delivery of PBIS were selected as predictor variables and included BIPs, FBAs, and counseling services. Information

regarding educational variables was located within individual student's IEP for the 2019-2020 school year. Data related to each educational variable was collected from every student enrolled in the school district on February 21, 2020, who met the inclusion criteria of a student qualifying for special education who received an office discipline referral. The data collection cutoff date was a result of students not returning to class following State-mandated COVID-19 school closures.

BIPs include specific and operationally defined target behaviors designed to systematically reduce their frequency, quality, duration, magnitude, and/or timing (Steege et al., 2019). The narrative operational definitions of each target behavior were collected for every student meeting the inclusion criterion. For BIP data to be included it must have been completed specifically for the 2019-2020 school year, as federal guidelines require they be addressed annually as an IEP related service (IDEA, 2004). FBA data was coded in a yes/no format determined by whether an FBA was completed for each student within the last four schoolyears. Inclusion criteria for counseling services required the services be listed as a related service within the student's IEP. Data regarding counseling services were also coded in a yes/no format determined by whether the provision of counseling services was documented in the 2019-2020 IEP.

Demographic Variables

Nominal demographic data were collected and included ethnicity, sex, socioeconomic status, instructional placement, and special education qualification category. All demographic data were collected through Public Education Information

Management System (PEIMS) reports (Texas Education Agency [TEA], n.d).

Socioeconomic status was determined by free and reduced lunch qualification. The instructional placement was reported based on the State of Texas instructional arrangement continuum, which categorized student's placement based on the percentage of the school day spent in a mainstream setting (TEA, 2011). Special education qualification categories were reported in accordance with the thirteen categories identified within the IDEA guidelines (IDEA, 2004).

Criterion Variable

Discipline decisions resulting in time out of place were utilized as the criterion variable. Out-of-place was defined as any discipline that resulted in the student no longer being within their LRE as determined by an ARD committee and documented within an IEP. Out-of-place was recorded by the number of days. Any discipline referral resulting in a half-day out of place was rounded to a full day for data recording, consistent with IDEA guidelines (IDEA, 2004).

Participants

Written approval was granted from the Special Education Director of a rural East Texas independent school district allowing for the utilization of archival data in the form of the school district's demographic and discipline reports along with information regarding special education placement and services of individual students. Demographic data received included all students enrolled in the school district through February 21, 2020. Discipline reports and special education data included all students enrolled in the

school district receiving an office discipline referral (ODR) from August 1, 2019, through February 21, 2020. See Table 1 and 2 for a summary of the districtwide and special education demographic characteristics. Table 1 describes the number of students and percentage of total student population per demographic category for the entire school district. Table 2 describes the number of students and percentage of total student population per demographic category for the entire school district of students receiving special education services.

The school district received an overall accountability rating of a ‘C’ for the 2018-2019 school year (TEA, 2020). Furthermore, the TEA (2020) Academic Performance Report for the 2018-2019 school year reported only 37% of students within the school district met grade-level expectations on the State of Texas Assessments of Academic Readiness (STARR).

Procedures

School District Reports

All reports and spreadsheets that included identifiable information were handled by an authorized school district employee prior to a deidentified version being submitted to the researcher. Districtwide individual campus demographics reports were generated through PEIMS. The demographic reports included students’ name, race, ethnicity, grade, and status for receiving free or reduced lunch. Also included was an identifier of special education qualification and instructional arrangement code (IAC). The IAC continuum consists of 35 placements, each representing a modality of instruction for individual

students (TEA, 2011). For example, the IAC 40 represents a mainstream placement, or that the student will spend 100% of their day in a general education setting. A student with an IAC of 41 will spend no more than 21% of their school day outside of a general education setting. A student with an IAC of 42 will spend no less than 21% and no more than 50% of their school day receiving instruction in a resource classroom. A resource classroom is a designated area outside of a general education classroom where small group instruction is provided. A student with an IAC of 44 receives no less than 60% of instruction inside a self-contained classroom. A self-contained classroom is an independent setting where all instruction is provided by a special education teacher. Office discipline referral reports were generated through the ESchool software system (PowerSchool, n.d.). Reports were separated by campuses and included the student's name, grade, race, sex, and date of birth along with a cumulative record of the date, incident number, along with a nominal and narrative description of the behavior resulting in an ODR. The report also included information regarding disciplinary action for the individual ODR that showed the type and duration of disciplinary action. Data regarding individual student's IEP were also gathered through the software system SuccessEd (SuccessEd, 2019).

Once all data were collected through independent software programs that required identifying information, a master Excel spreadsheet was created. The spreadsheet was separated into three sheets: elementary, middle school, and high school where individual campus reports were aggregated. Columns were created for all demographic, educational,

and disciplinary variables. Student information was inserted by the row where special education and disciplinary data were matched to the corresponding student's demographic data. Once all data were entered, all identifiable information was removed and replaced with random numerals.

Data Analysis

Data were analyzed utilizing quantitative methods. General demographic information was reported for all students and students qualifying for special education at the district level (see Table 1 & Table 2). Demographic data were reported by total number and percentage of population by category. Discipline resulting in days out of place data were reported by means and standard deviations across all educational (i.e., FBA, BIP, Counseling) variables. The risk rate of receiving exclusionary discipline was also calculated. Risk rate describes a groups' (e.g., ethnicity, SES, sex) likelihood of receiving exclusionary discipline. The risk rate was calculated for each demographic group by dividing the total number of students receiving exclusionary discipline by the total number of students in that group (Sullivan & Bal, 2013). These data analysis methods were consistent with previous research that was designed to describe the level of risk for students being placed in special education (Sullivan & Osher, 2019; Waitoller et al., 2010).

To analyze the effects of Tier 3 PBIS services independent sample t-tests were conducted across educational levels. Data were grouped by each Tier 3 PBIS service (i.e., FBA, BIP, counseling) along with data for students receiving no Tier 3 PBIS service.

Results were reported as means, standard deviations, and level of significance. Researchers also attempted to determine the effect of BIP accuracy. To do so, two advanced school psychology doctoral students reviewed the individual, deidentified ODR behavior summaries and BIP target behaviors notating the number of matches. Each researcher independently reviewed the ODR summaries and noted if the behaviors described matched at least one of the BIP target behaviors. Researchers reported the percentage of ODR's with at least one matching BIP target behavior for each student with a BIP. Inter-observer agreement was calculated by dividing the total number of ODR-BIP agreements by the total number of students with BIPs and then multiplying by 100 (Watkins & Pacheco, 2000). Results were reported by the mean number of days out of place for the top quartile (25%) of students, or most accurate BIPs, and the bottom quartile (25%) of students, or least accurate BIPs. To determine significance between means between the top and bottom quartile BIP groups, independent sample t-tests were conducted across educational levels.

Hypothesis Statement

Primarily, it was hypothesized that students in special education who receive Tier 3 PBIS will spend on average fewer days outside of their LRE than students in special education who receive no Tier 3 PBIS. Furthermore, it was hypothesized that students with a more accurate BIP will also spend fewer days outside of their LRE due to exclusionary discipline. Also, it was expected that students who are of minority and Low SES status will be at the highest risk for receiving exclusionary discipline.

Table 1

Districtwide Demographic Characteristics

Characteristic	Elementary		Middle School		High School		School District Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Sex								
Male	1591	53.09	717	51.51	872	52.59	3180	52.59
Female	1406	46.91	675	48.49	786	47.41	2867	47.41
Ethnicity								
AI	4	0.13	0	0	2	0.12	6	0.10
Asian	26	0.87	13	0.93	37	2.23	76	1.26
Black	934	31.16	381	27.37	410	24.73	1725	28.53
Hispanic	1492	49.78	690	49.57	778	46.92	2960	48.95
PI	0	0	1	0.07	0	0	1	0.02
White	453	15.12	276	19.83	402	24.25	1131	18.70
2 or More	88	2.94	31	2.23	29	1.75	148	2.45
Low SES	2696	89.96	1129	81.11	1202	72.50	5027	83.13

Note. American Indian (AI). Pacific Islander (PI).

Table 2

Special Education Districtwide Demographic Characteristics

Characteristic	Elementary		Middle School		High School		School District Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Sex								
Male	321	68.15	136	64.15	135	66.83	592	66.89
Female	150	31.85	76	35.85	67	33.17	293	33.10
Ethnicity								
AI	0	0	0	0	0	0	0	0
Asian	2	0.42	0	0	1	0.50	3	0.34
Black	175	37.15	83	39.15	73	36.14	331	37.40
Hispanic	197	41.83	79	37.26	61	30.20	337	38.08
PI	0	0	0	0	0	0	0	0
White	86	18.26	46	21.70	60	29.70	192	21.69
2 or More	11	2.34	4	1.89	7	3.47	22	2.49
Low SES	420	89.17	179	84.43	153	75.74	752	84.97

Note. American Indian (AI). Pacific Islander (PI).

CHAPTER IV

Results

A univariate descriptive analysis of demographic variables to determine the risk of receiving exclusionary discipline for students in special education was conducted. Table 3 shows the total number of students, the percentage of representation by demographic category, and RI for receiving exclusionary discipline across each demographic variable. Within the sex demographic category, male special education students were at the highest risk at the elementary (RI = 14.95) and middle school (RI = 28.68) levels compared to female students at the elementary (RI = 10) and middle school (RI = 19.74) levels. Female students were at higher risk in high school (RI = 28.36) compared to males (RI = 22.96). Within the ethnicity demographic category, Black students were at the highest risk to receive exclusionary discipline across school levels: elementary (RI = 22.29), middle school (RI = 37.35), and high school (RI = 32.88) compared to White and Hispanic students. Hispanic students were at the lowest risk for exclusionary discipline at the elementary (RI = 3.55) and middle school (RI = 16.46) levels, while White students were at the lowest risk at high school (RI = 10). The two or more race category had such low representation ($n = 3, 2, 2$) across educational levels that it was not considered when determining the highest overall RI by ethnicity (Skiba et al., 2005). Students meeting the low SES criteria were more than two times at risk for

exclusionary discipline in middle (RI = 29.05) and high school (RI = 28.1) than at the elementary level (RI = 10.24).

When analyzing risk by disability category, students who were identified as ED have significantly higher risk of receiving exclusionary discipline than any other category across educational levels: elementary (RI = 66.67), middle school (RI = 45.45), and high school (RI = 75). Students who were ED were over twice as likely at the elementary level to receive exclusionary discipline than students in all other disability categories. The RI for students identified as ED at the high school level was almost double the RI for all other special education categories. However, the overall low representation of students who were ED within the sample should be considered. For example, there were only six students identified with ED at the elementary level, five at the middle school level, and three at the high school level. Students who were classified as ED only comprise approximately 8% of the overall special education population for the entire school district. At the middle school level, students with an OHI matched the risk level (RI = 45.45) of students with an ED. Students who were classified as ID at the middle school level (RI = 40) also saw a significant spike in risk when compared to the elementary (RI = 21.11) and high school (RI = 22.58) level with their risk being almost twice as high. Within the IAC demographic category, students who received instruction in the 44 IAC were at the highest risk for exclusionary discipline at the elementary level (RI = 25.61 [see Appendix A for IAC description]). At the middle (RI = 50) and high school (RI = 46.34) levels students placed in the 42 IAC were at the highest risk. Students in middle

($RI = 38.87$) and high school (33.33) at the 40 IAC were at the second-highest risk for receiving exclusionary discipline.

Independent sample t-tests were conducted to evaluate the effect of Tier 3 PBIS on days of exclusionary discipline received across educational levels. Table 4 provides data regarding the number of students receiving each Tier 3 PBIS along with the mean and standard deviation of days spent in exclusionary discipline for each educational level. Also included is the same data for special education students receiving exclusionary discipline who receive no Tier 3 PBIS. Overall, students who did not receive Tier 3 PBIS, on average, receive fewer days of exclusionary discipline across all educational levels: elementary ($M = 3.33, SD = 4.8$), middle school ($M = 2.81, SD = 1.8$), and high school ($M = 5.5, SD = 7.54$) compared to Tier 3 PBIS at all educational levels. However, a significant increase in the number of days spent in exclusionary discipline was found between the middle and high school level $t(63) = -1.94, p = .04$. The mean number of days spent in exclusionary discipline for students receiving any Tier 3 PBIS significantly increased from the elementary to the middle school level. For students with an FBA, the mean number of days spent in exclusionary discipline increased from 8.94 ($SD = 14.66$) to 24.9 ($SD = 24.9$), $t(37) = -2.43, p = .02$, for students receiving a BIP the mean number of days spent in exclusionary discipline increased from 7.82 ($SD = 11.98$) to 23.65 ($SD = 23.68$), $t(49) = -3.09, p = .01$, and for students receiving counseling the mean number of days spent in exclusionary discipline increased from 4.12 ($SD = 4.58$) to 38 ($SD = 26.32$), $t(19) = 5.41, p = <.001$, from elementary to middle school. The mean days spent in

exclusionary discipline decreased across all Tier 3 PBIS categories from the middle to the high school level. For students with an FBA the mean number of days dropped from 24.9 ($SD = 24.27$) to 19 ($SD = 33.39$), $t(23) = .42$, $p = .59$, for students with a BIP the mean number of days dropped from 23.65 ($SD = 23.68$) to 20.82 ($SD = 22.64$), $t(32) = .33$, $p = .66$, and for students receiving counseling the mean number of days dropped from 38 ($SD = 26.32$) to 18.86 ($SD = 25.39$), $t(9) = 1.19$, $p = .68$. Significant increases in mean days spent in exclusionary discipline were also noted across the elementary ($M = 8.94$, $SD = 14.66$) and the high school ($M = 19$, $SD = 33.39$) level within the BIP group $t(37) = -2.34$, $p = .001$. A significant difference in means were also noted across the elementary ($M = 4.12$, $SD = 4.58$) and high school ($M = 18.86$, $SD = 25.39$) level with the counseling group $t(22) = -2.38$, $p = <.001$. The large standard deviations must also be noted, as most Tier 3 PBIS categories possessed larger standard deviations than means across all educational levels. Data for each category of Tier 3 PBIS were greatly skewed by a select number of students receiving a significantly higher number of days in exclusionary discipline.

To address the secondary research question, an analysis of the effect of BIP accuracy on exclusionary discipline was conducted through independent sample t-tests. Overall, at the elementary school level, students with the most accurate BIP (top 25%) received a mean of 8 days ($SD = 13.77$) in exclusionary discipline and students with inaccurate BIPs (bottom 25%) received a mean of 6.75 ($SD = 3.77$) days in exclusionary discipline. However, this data is significantly skewed by a single student receiving a total

of 63 days outside the student's LRE. When this outlier is removed from the dataset, the mean number of days spent in exclusionary discipline for the top quartile dropped to 5.25 ($SD = 5.68$), over one full day below the BIPs in the bottom quartile for students at the elementary school level. At the middle school level, students with the top quartile BIPs received a mean of 16.1 ($SD = 25.27$) days in exclusionary discipline while students with the bottom quartile BIPs spent a mean of 31.25 ($SD = 22.62$) days in exclusionary discipline. Finally, at the high school level, the mean number of days spent in exclusionary discipline was 15.33 ($SD = 17.9$) and 27.2 ($SD = 28.36$) days respectively for the top and bottom quartile for BIP accuracy. Overall, no significant difference in days spent in exclusionary discipline were found at the elementary $t(26) = -.69, p = .52$, middle school $t(19) = -1.44, p = .97$, or high school level $t(6) = -.64, p = .26$.

Table 3

Students in Special Education Out of Place Discipline Summary

Characteristic	Elementary			Middle School			High School		
	<i>n</i>	%	RI	<i>n</i>	%	RI	<i>n</i>	%	RI
Sex									
Male	48	76.19*	14.95	39	72.22*	28.68	31	62	22.96
Female	15	23.81	10	15	27.78	19.74	19	38*	28.36
Ethnicity									
Black	39	61.9*	22.29	31	57.40*	37.35	24	48*	32.88
Hispanic	7	11.11	3.55	13	24.1	16.46	18	36*	29.51
White	14	22.22	16.28	8	14.81	17.39	6	12	10
2 or More	3	4.76*	27.27	2	3.7*	50	2	4*	28.57
Low SES	43	68.25	10.24	52	96.3*	29.05	43	86	28.1
Disability									
SLD	13	20.63	26.53	16	29.63	26.22	31	62	40.79
ID	19	30.16	21.11	14	25.93	40	7	14	22.58
AU	8	12.71	12.5	1	1.85	8.33	0	0	0
SI	6	9.52	5.08	0	0	0	0	0	0
OHI	11	17.46	21.15	15	27.78	45.45	7	14	30.43
ED	6	9.52	66.67	5	9.26	45.45	3	6	75

Table 3 cont.

Students in Special Education Out of Place Discipline Summary

Other	0	0	0	3	5.56	20	2	4	15.38
IAC									
40	0	0	0	21	38.89	33.87	20	40	33.33
41	12	19.05	17.39	6	11.11	18.75	7	14	21.88
42	21	33.33	19.44	24	44.45	50	19	38	46.34
44	21	33.33	25.61	3	5.56	12.5	1	2	5.88

Note. *Subgroup overrepresented when compared to overall special education population (see Table 2).

Table 4

Days Out of Place for Students in Special Education Receiving Tier 3 PBIS

Tier 3 PBIS	Elementary			Middle School			High School		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
FBA	18	8.94*	14.66	21	24.9*	24.27	4	19	33.39
BIP	28	7.82* ⁺	11.98	23	23.65*	23.68	11	20.82 ⁺	22.64
Counseling	17	4.12* ⁺	4.58	4	38*	26.32	7	18.86 ⁺	25.39
No Services	24	3.63	4.8	31	2.81*	1.8	34	5.5*	7.54

Note. *n* represents the number of students who are receiving Tier 3 PBIS. The * and ⁺ denotes a significant difference in means across the corresponding educational level.

CHAPTER V

Discussion

The current study was designed to analyze the effects of Tier 3 PBIS services on school days spent in exclusionary discipline for students in special education at a rural, East Texas school district. The research questions were as follows: 1) Do students who receive Tier 3 PBIS services receive fewer days outside their LRE due to exclusionary discipline when compared to students in special education who do not receive Tier 3 PBIS services? and 2) Does BIP accuracy affect the number of days spent outside the LRE for students in special education for whom a BIP has been completed? Descriptive data for the risk of receiving exclusionary discipline were also reported across demographic variables (e.g., race, sex) and educational levels (e.g., elementary). It was hypothesized that students in special education receiving Tier 3 PBIS services would spend fewer days outside their LRE and that more accurate BIPs would also result in fewer days outside the LRE for students in special education. Furthermore, researchers expected students categorized as Black and Low SES would be at the highest risk for receiving exclusionary discipline. Results indicated that students who did not receive Tier 3 PBIS services spent fewer schooldays on average outside of their LRE when compared to the students who did receive Tier 3 PBIS, which contrasted with the stated hypothesis. The results also indicated that more accurate BIPs resulted in fewer days in exclusionary discipline, supporting the stated hypothesis. Finally, Black students and

students identified as ED were at the highest risk to receive exclusionary discipline across educational levels, partly supporting the hypothesis.

Tier 3 PBIS

The primary research question sought to determine if students receiving tier 3 PBIS services spent fewer days outside their LRE due to exclusionary discipline. Overall, students who received any Tier 3 PBIS service spent more days in exclusionary discipline than students who received no Tier 3 PBIS services. An analysis of Tier 3 PBIS groups indicated students at the elementary and high school level who received counseling spent on average the fewest days in exclusionary discipline. Students with a BIP had the lowest mean number of days in exclusionary discipline at the middle school level. Results also demonstrated that Tier 3 services were used at a higher rate at the elementary school level ($n = 63$) and declined as students moved from middle school ($n = 48$) to high school ($n = 22$). Furthermore, at the elementary and middle school level students in special education who received exclusionary discipline were more likely to be receiving Tier 3 PBIS services. The current study sought to add to the limited research base by analyzing the effects of Tier 3 PBIS services on days spent in exclusionary discipline for students in special education. Although previous research has demonstrated Tier 3 PBIS services can lower rates of problem behaviors (Crone et al., 2015; Baule & Superior, 2020) through the development of prosocial behaviors (Carey & Dimmitt, 2012; Whiston & Quinby, 2009), little to no evidence exists indicating these services ultimately result in fewer days

in exclusionary discipline. The current study also failed to demonstrate this effect to be true.

BIP Accuracy

The current study secondarily sought to determine if BIP accuracy would result in fewer days spent in exclusionary discipline. Overall, after excluding a statistical outlier, students who received a more accurate BIP spent on average fewer days in exclusionary discipline across all educational levels. These differences were not significant, but the results did help demonstrate the importance of accurate BIP construction. Although not explicitly explored in the current study, these results help strengthen the current body of research that indicates BIPs constructed using evidence-based data collection methods ultimately result in fewer problem behaviors within the classroom (Ingram et al., 2005; Killu, 2008).

Risk of Receiving Exclusionary Discipline

A tertiary goal of the current study was to determine the risk of receiving exclusionary discipline by demographic category and across educational levels. Male students were at higher risk of receiving exclusionary discipline when compared to female students at the elementary and middle school level. Females were at a slightly higher risk at the high school level. The risk for Low SES students across educational levels was not significantly higher when compared to other demographic categories. These results may be affected by the high percentage of students represented in the sample who qualified as Low SES. For example, at the middle school level, 96.3% of the

sample was Low SES. Overall, Black students were disproportionately represented and had the highest risk for receiving exclusionary discipline across all educational levels. Furthermore, Hispanic students were not disproportionately represented and had the lowest risk of receiving exclusionary discipline at the elementary and middle school levels. At the high school level, Hispanic students were disproportionately represented and had the second-highest risk rate of receiving exclusionary discipline. When analyzed by disability category, it was found that students who were identified with an ED were at the highest risk to receive exclusionary discipline across educational levels. The risk rate for exclusionary discipline was not as uniform when analyzing by the IAC variable. At the elementary school level, students who receive most of their instruction in a special education setting were at the highest risk for receiving exclusionary discipline. At the middle school level, students who receive all their instruction in a general education setting were at the highest risk for receiving exclusionary discipline, and at the high school level students who receive up to half of their instruction in a resource room were at the highest risk. Overall, these results are consistent with a large body of research that has demonstrated that males, Black, and ED students are at the highest risk for receiving exclusionary discipline (DOE, 2018; Losen, 2018; Losen et al., 2014).

Implications

Research has demonstrated exclusionary discipline practices are being utilized at an increased rate (Sykes et al., 2015) despite overwhelming evidence suggesting the practice significantly increases the likelihood of negative outcomes (Arcia, 2006; Balfanz

et al., 2015; Christle et al., 2005; Fabelo et al., 2011; Ginsburg et al., 2014; Hemphill et al., 2006; Marchbanks et al., 2015; Mowen & Brent; 2016; Noltemeyer et al., 2015; Suh & Suh, 2007; Tobin et al., 1996). Furthermore, the continued use of exclusionary discipline practices is disproportionately affecting Black and ED students (DOE, 2018). Black students specifically are, due to decisions made within a school setting, at higher risk for contacting law enforcement (Christle et al., 2005; Fabelo et al., 2011; Mowen & Brent; 2016), dropping out of school (Marchbanks et al., 2015; Suh & Suh, 2007), and displaying problem behaviors in the school (Hemphill et al., 2006; Tobin et al., 1996), while also having lower academic achievement (Arcia, 2006; Balfanz et al., 2015; Ginsburg et al., 2014; Noltemeyer et al., 2015). The current study adds to the large research base showing Black and ED students are at the highest risk for receiving exclusionary discipline. Previous national analyses (DOE, 2014, 2018) have also reported Hispanic students are not at an elevated risk for receiving exclusionary discipline. This study's final data also found Hispanics were also not at an elevated risk for receiving exclusionary discipline. In fact, at the elementary and middle school level, Hispanic students were at a lower risk than White students. This outcome may be due to a failure to analyze the effects of within-group demographic variables, specifically language proficiency. This limitation will be discussed more in a following section.

Nationwide school districts are federally required (IDEA, 2004) to implement PBIS services for all students receiving special education services. Research has widely reported PBIS to be an evidence-based practice (Baule & Superior, 2020; Carr et al.,

2002; Crone et al., 2015; Wang et al., 2020) that addresses problem behaviors in the school setting through the development of prosocial behaviors. When implemented with fidelity, PBIS should reduce the rate of students in special education being placed in exclusionary discipline due to a reduction of problem behaviors. The current study failed to demonstrate this hypothesis as all students who received the most significant PBIS services spent more days on average outside of their LRE across all educational levels. Although the results failed to match the hypothesis, the findings may not be illogical as students who receive Tier 3 PBIS services should be demonstrating significant behavior problems, which one may expect to result in more behavior referrals. These results should encourage additional research targeting the application of PBIS services at a district and campus-wide level, specifically in the Tier 3 category of counseling as results from the current study demonstrating at the elementary and high school level students who receive counseling have the lowest average for days spend in exclusionary discipline . This topic is discussed further in the future research section.

The study did however demonstrate the effectiveness of accurate construction of a Tier 3 PBIS, specifically the BIP. Best practice for BIP construction requires practitioners to use data collected through FBAs to target specific behaviors with plans based on the function of the behavior to reduce the behavior's environmental effectiveness (Crone et al., 2015). Quality BIPs should adjust the student's immediate environment so that problem behaviors are no longer an adaptive option due to prosocial behaviors being more heavily reinforcing and efficient to engage. The current study showed that BIPs that

had accurate target behaviors (i.e., targeted the behaviors described in discipline reports), although not statistically significant, did result in students spending fewer days outside their LRE due to exclusionary discipline. Overall, these data are novel to the current research base and its analysis of BIPs as the researchers were unable to locate previous studies analyzing BIP accuracy through matching target behaviors to behaviors described in office discipline reports.

Limitations

One of the primary limitations of the study pertains to its sample. The sample only consisted of students attending a single school district and likely reflect idiosyncratic special education identification and discipline practices that may not be representative of school districts within or outside of rural East Texas. For example, the AU category for the sample was underrepresented when compared to national averages. Furthermore, due to Covid-19 shutdowns, discipline data did not consist of an entire school year. Finally, the accuracy in reporting discipline data may be affected by the practices of individual campus principles. IDEA (2004) requires all campuses to report time spent outside of the LRE for students in special education. However, campus leaders may interpret seemingly legally ambiguous IDEA (2004) and State mandates, specific to the definition of removing a student from their LRE in inconsistent ways, an area that may benefit from targeted professional development for administrators. Each of these facts will limit the overall accuracy and generalizability of the results.

Another limitation existed in the inability to measure the effects of within-group variables for students of minority status. Colorism (Hunter, 2007; Maddox, 2004; Monk, 2021) and texturism (Donahoo, 2021; Keith et al., 2017) are reported social constructs of oppression that result in people of color receiving biased and detrimental treatment based on phenotypic expression. This biased treatment is perpetuated by individuals of every racial group. Research has consistently demonstrated, specifically for Black Americans, a positive correlation between the variables of darkness of skin and Afrocentric appearance, and the likelihood of being perceived negatively, specifically in the areas of behavior and appearance (Maddox, 2004; Monk, 2021). Furthermore, Hunter (2007) reports dark-skinned people of color, which included races outside of just Black Americans, generally have poorer social and economic outcomes. Across racial minority groups, individuals associate more positive traits and even prefer potential partners, people who possess a lighter skin tone and a more Eurocentric phenotypic expression (Maddox, 2004).

The concept of texturism is used to describe the discrimination experienced by individuals of African descent due to the differing texture of hair compared to the hair of individuals from traditional European genealogy. Although there is evidence that both men and women experience the effects of texturism, most researchers have found the brunt is felt by women (Donahoo, 2021). Webb (2020) colloquially describes texturism as the labeling of Black hair as “bad” and White hair as “good”, thus perpetuating negative perceptions of Black women and continuing the effects of racism. Research

suggests that when Black women do not conform to White-determined beauty standards they typically experience discrimination socially and economically (Donahoo, 2021). Furthermore, the effects of texturism may currently be experienced more frequently and widely as a social movement within the Black community has resulted in individuals choosing to wear their hair in a “natural” style at a higher rate (Norwood, 2018). For the current study, demographic data were limited to information reported through PIEMS and did not provide researchers information for all relevant within-group variables. Researchers interested in analyzing the effects of phenotypic expression of minority students through colorism and texturism and their relationship with discipline practices would need to administer additional, variable-specific scales directly to students.

Additional within-subject limitations include a failure to account for intersectionality and language proficiency during data analysis. Intersectionality as a theory posits that human experience cannot be fully quantified and understood through a singular social lens (e.g., sex, gender identity, race, ethnicity), but rather must be analyzed by accounting for the joint effects of all relevant social categories for an individual (Bauer et al., 2021). First published by self-described feminist Kimberle Crenshaw (1991) to better describe the experience of Black women in the United States, intersectionality has grown to be a topic of study across several ethnic, social, and geographical groups through mostly qualitative methods (Bowleg, 2008). However, more recently intersectionality has been a topic of study through quantitative analysis across scientific disciplines, including public health (Bauer, 2014; Bauer et al., 2021).

Proponents of intersectionality suggest it provides a more accurate description of the effects of hierarchical systems of power and the experience of minority groups in the United States (Bauer et al., 2021). However, some researchers have expressed reservations for the continued pursuit of defining and quantifying inequality between groups as it may only serve to reinforce preconceived notions of inherent differences rather than provide suggestions that may result in actionable solutions (Bauer & Scheim, 2019). The current study's descriptive analysis was not able to account for the potential effects of intersectionality on discipline within the sample.

Moreover, the study did not account for the effects of language proficiency for students, particularly those identified as Hispanic. Research has demonstrated proficiency in English to be a significant predictor of special education placement (Argulewicz, 1983; Artiles, 2005). Students who do not speak English as their primary language, or who are only proficient in English at a basic interpersonal communication level are referred and qualified for special education at a higher rate than their White peers (Artiles, 2005). When targeting discipline, studies have failed to consistently demonstrate that Hispanic and Latinx students are at a higher risk for exclusionary discipline than White students (Skiba et al., 2011). However, there are data supporting a position that Hispanic students receive inequitable treatment regarding ODR and discipline placement for exhibiting similar behavior as their White peers (Brown & De Tillo, 2013; Skiba et al., 2011). An analysis of the effects of language proficiency would have strengthened the current study

as well as the overall research base, as the researcher unable to locate a previous study that analyzed within-group effects of language proficiency on a Hispanic sample.

Finally, the current study did not utilize inferential statistical analysis methods in conjunction with descriptive methods. The current study may have been strengthened through statistical measures (e.g., multinomial logit model) that allow researchers to analyze the contribution (i.e., variance) and predictive power of each demographic variable to the number of ODRs received. These inferential statistic measures would also benefit future studies that include a more in-depth analysis of within-group variables. The measures were not utilized in the current study as they were not required to answer the research questions.

Future Studies

Future studies should include demographic variables in their analysis of the effects of Tier 3 PBIS services. The results of the current study failed to demonstrate the effectiveness of any Tier 3 service, however, additional analysis that includes demographic variables (e.g., race, sex, SES) should provide a more in-depth description of a sample. The inclusion of demographic variables possesses relevance as data from the current and previous studies (DOE, 2018) demonstrate that individuals belonging to specific demographic groups (i.e., Black males) are at higher risk for receiving exclusionary discipline. Future studies may target by demographic category the number of students receiving Tier 3 PBIS as well as the type of Tier 3 PBIS received. These data

may provide rich information for researchers in the pursuit of identifying variables potentially contributing to the disproportionate allocation of exclusionary discipline.

Researchers may also benefit from including a temporal variable regarding Tier 3 PBIS services. For example, total days spent in exclusionary discipline settings could be measured before and after the implementation of a Tier 3 service. This research design may provide a more accurate picture of the effectiveness of specific Tier 3 services rather than the current design that only looked at total days spent in exclusionary discipline for the school year. A negative trend for days spent in exclusionary discipline after receiving a Tier 3 service would be encouraging despite an overall high total for the academic year.

An analysis of district and campus PBIS practices would also be beneficial to the research base. This analysis should specifically target the procedures for completing an FBA, constructing and implementing a BIP, and the identification and referral process for counseling. The results of the current study demonstrating students receiving Tier 3 services spending more days, on average, in exclusionary discipline may be expected as students in Tier 3 would likely have been reinforced for engaging in the undesirable behaviors for a prolonged period. Therefore, it would also be beneficial to analyze the practices of Tier 1 and Tier 2 as well as the process of determining the movement between tiers for students in special education. Furthermore, the analysis of each PBIS tier should be conducted across all relevant demographic variables.

Studies investigating district and campus practices regarding FBAs may benefit by targeting the procedure for identifying target behaviors, data collection, and

conclusions. The process for identifying target behaviors should include direct (e.g., in-person) and indirect (e.g., interviews) data collection by a professional with adequate and supervised experience conducting FBAs (Cooper et al., 2019; O’Neill et al., 2015). Data collection procedures should be analyzed to determine if the most effective procedures (e.g., time sampling, latency) are being utilized based on the type of target behavior. After data collection has been completed a conclusion must be hypothesized for each target behavior, these conclusions are the function of the behaviors. Future studies should attempt to analyze these procedures for efficacy and accuracy as they are vital in the construction of BIPs (Cooper et al., 2019; O’Neill et al., 2015).

Additional research could investigate district and campus practices for creating and implementing BIPs. Practitioners should utilize data collected during an FBA to construct a BIP that targets the function of problem behaviors for individual students (Steege et al., 2019). Researchers should work to determine if BIPs provided to students receiving Tier 3 PBIS appropriately target the function of behaviors that are causing problems or disruption to their learning environment. Researchers may benefit from the creation of a checklist for the evaluation of BIPs that helps identify key components. For example, the language within a BIP should identify target behaviors and state their function, while also providing a specific and measurable description of an evidence-based intervention designed to “weaken” each problem behavior by removing environmental variables that are hypothesized to serve as reinforcers (Steege et al., 2019). Each BIP should also provide explicit and measurable descriptions of strategies that work to

develop prosocial behaviors designed to take the place of the targeted problem behaviors. Researchers have consistently demonstrated BIPs that correctly target the function of problem behaviors are effective (Crone et al., 2015; Cooper et al., 2019; Ingram et al., 2005; Killu, 2008) and research designed to examine BIP practices should benefit the district, campus, and individual student.

Counseling as a service within the PBIS model should also operate within a problem-solving approach (Plotts & Lasser, 2020). Evidence suggests a problem-solving approach is effective across counseling styles (e.g., play-based, cognitive-behavioral; Clark & Tilly, 2010; Tilly, 2008). As with the construction of BIPs, counseling services should also be designed to target specific problem behaviors. Future research should evaluate PBIS data collection procedures for students receiving counseling, as well as how these data are utilized in the creation and execution of a counseling program.

Finally, when examining the PBIS practices at the district and campus level, future research should examine data collection, progress monitoring, and treatment fidelity for all services. These data are useful for informing decision-making for all students, however, should a student progress through PBIS tiers of service these data become vital in the creation of Tier 3 services. Researchers should monitor data collection procedures for all tiers of PBIS as well as the process in making tier movement determination for individual students to analyze the effectiveness of practices. Furthermore, the analysis should also seek to analyze all practices within the framework of cultural responsiveness and awareness, specifically to determine if the subjective

interpretation of problem behaviors by staff are disproportionately affecting students of minority status. This type of future research could benefit any district or campus that is failing to manifest benefits from their PBIS system as research has consistently demonstrated efficacy if implemented with fidelity (Horner et al., 2020).

Conclusion

This study sought to examine the relationship of Tier 3 PBIS services on the number of school days spent outside of the LRE for students qualifying for special education across levels of education, specifically the effects of accurate BIPs within a rural East Texas independent school district. Overall, results were congruent with current national data (DOE, 2018) demonstrating that Black and ED students were at the highest risk for receiving exclusionary discipline across all educational levels. The study also demonstrated that students in special education receiving any Tier 3 PBIS service spent on average more days in exclusionary discipline than students who did not receive Tier 3 PBIS. Finally, the study demonstrated that students in special education with more accurate BIPs spent fewer days in exclusionary discipline on average, although the finding was not significant. The results of the current study should encourage future research into the discipline practices of individual districts and campuses to reduce the number of days spent in exclusionary discipline for all students, but specifically for the more vulnerable population of students in special education.

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Appendix

Narrative Description of IAC

IAC	Description
40	100% of school day spent in general education
41	< 21% of school day spent in resource room
42	21 < 50% of school day spent in resource room
44	>60% of school day spent in self-contained room

Note. A resource room is a separate setting within a campus that is outside of the general education classroom where individualized instruction can be administered to a small group. A self-contained room is a separate educational setting where all instruction is administered by a special education teacher. Self-contained classrooms are also on the same campus as the general education classrooms.

Vita

Cutler Ruby graduated from Cedar Valley College with an Associates of Arts degree in General Studies in 2010 and would later go on to earn a Bachelor of Arts degree in Psychology from Post University in 2012. While enrolled at Stephen F. Austin State University, Cutler completed research focused on the improvement of academic and social interventions, specifically in the subjects of mathematics and verbal behavior. Cutler's program of study has focused on individual and systems-level services within a school setting with an emphasis on applied multiculturalism practices. In the future, Cutler plans to continue to explore the field of psychology while providing evidence-based services within a school and private setting.

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