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**UNDERREPRESENTING DISPROPORTIONALITY: AN INTERDISCIPLINARY  
BIBLIOGRAPHIC CONTENT ANALYSIS**

A thesis submitted to  
the Graduate College of  
Marshall University  
In partial fulfillment of  
the requirements for the degree of  
Education Specialist

in

School Psychology

by

Stacy B. Fooce

Approved by

Dr. Lanai Jennings, Committee Chairperson

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MARSHALL UNIVERSITY

AUGUST 2018

## APPROVAL OF THESIS

We, the faculty supervising the work of Stacy B. Fooce, affirm that the thesis, *Underrepresenting Disproportionality: An Interdisciplinary Bibliographic Content Analysis*, meets the high academic standards for original scholarship and creative work established by the School Psychology Program and the College of Education and Professional Development. This work also conforms to the editorial standards of our discipline and the Graduate College of Marshall University. With our signatures, we approve the manuscript for publication.



7-25-2018

Dr. Lanai Jennings, Department of School Psychology      Committee Chairperson      Date



7-25-2018

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7-25-2018

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## **ABSTRACT**

Students of color and those with disabilities have been disproportionately identified, placed, and disciplined in education. As a result, IDEA 2004 requires states to have policies and procedures in effect to prevent and reduce disproportionate representation by race and ethnicity in the areas of identification, discipline, and placement of children with disabilities. Despite the policies, black students are still 1) suspended or expelled at a rate two-to-three times higher than white students; 2) 2.8 times more likely to be identified as having a high-incidence disability; 3) more likely to be placed in a more restrictive environment. Because these disparities continue to persist, it is critical that both school psychologists and special educators have a thorough understanding of disproportionality and are informed about innovative intervention and prevention strategies for overrepresentation. Literature regarding disproportionality is important for guiding practitioners to address the root causes of disproportionality and develop potential solutions to the problem. For these reasons, the present study was conducted to examine how frequently ten Special Education and School Psychology journals covered the topic of disproportionality. The study revealed that very few articles within the selected journals outlets explicitly focused on racial and ethnic disproportionality, particularly in the area of least restrictive environment. However, discipline was the most widely discussed disproportionality topic, although only one of 3,088 articles discussed Significant Disproportionality. Results suggest an increased focus on disproportionality among the scholarly outlets is warranted, particularly in the areas of least restrictive environment and Significant Disproportionality.



# CHAPTER I

## LITERATURE REVIEW

While 64 years have passed since *Brown v. Board of Education* was decided (“Brown v. Board of Education,” 1954), minority students still endure inequalities in access to resources, levels of assistance, discipline, and diagnosis of disability (Rocque & Paternoster, 2011; U.S. Department of Education, 2016). Because populations of ethnic and racial minority students have been disproportionately identified, placed, and disciplined in education (U.S. Department of Education, 2016), this study will examine the literature published within 10 major school psychology and special education journals to determine the amount and content of literature focusing on disproportionality in the respective fields. Disproportionality is defined as the overrepresentation or underrepresentation of a specific population, normally with racial or ethnic heritage, but also including socioeconomic status, national origin, language minority groups, gender, and sexual orientation, in a certain population group (Skiba, Artiles, Kozleski, Losen & Harry, 2015). Disproportionality was first discussed in the 1960s and has been highly scrutinized since (Sullivan & Bal, 2013). Disproportionality denotes the disparate number of minority students receiving special education services. Research involving disproportionality typically relates to the overrepresentation of minority students in special education programs and the underrepresentation of minority students in gifted programs (Raines, Dever, Kamphaus & Roach, 2012). Disproportionality has been described as a “paradox” because it is meant to be used to help identify students who are in need of resources and services for students with disabilities, but has been used to segregate and stigmatize students (Sullivan & Bal, 2013). Despite the fact that disproportionality has been examined frequently, the intricacy of the

problem is still not fully understood. Moreover, the causes and solutions of disproportionality are still not completely clear (Skiba, et al., 2008).

Students with special needs and African American students have both historically experienced discrimination. In fact, the Civil Rights Movement had a huge impact for both groups. The strategies used for the first national legislation for special education were inspired by the struggle of the Civil Rights Movement (Skiba et al., 2008, pg. 264). Disability advocates extended the prior constitutional ruling in *Brown v. Board of Education* that a “separate but equal” education was, in fact, not an equal education for children with disabilities who were either completely denied school access or excluded from classrooms with non-disabled peers. Disproportionality concerns were thereby pivotal to the landmark legislation *Mills v. Board of Education*, 1972 and the creation of the Education for All Handicapped Children Act of 1975 (Public Law 94-142) (Skiba, et al., 2008), which was later reauthorized as the Individuals with Disabilities Education Act (IDEA) (Public Law No. 94-142).

### **Individuals with Disabilities Act of 2004**

The Individuals with Disabilities Act of 2004 (IDEA 2004) guarantees children and adolescents with disabilities in the United States a free and appropriate public education (Smith, 2005). The law was reauthorized and signed into law on the third of December, 2004 by President George W. Bush. IDEA 2004 governs how states and public agencies offer infants, toddlers, children and youth with disabilities different services and special education programs. Disproportionality, a priority area, involves several mandates intended to obviate the unequal representation of students by race and ethnicity group (Skiba et al., 2015). Disproportionality based on race and ethnicity in special education traditionally occurs and is consequently

monitored in three key areas: identification, placement, and discipline (“Disproportionality and Overidentification,” 2007).

When reporting the data required by IDEA, states are mandated to use the seven racial and ethnic categories set forth by the USDE (Bollmer, Bethel, Munk, & Bitterman, 2014). These seven categories are Hispanic/Latino, American Indian or Alaskan Native, Asian, Black or African American, Native Hawaiian or other Pacific Islander, White, and two or more races (Bollmer et al., 2014). Furthermore, it is noteworthy that the 2007 USDE guidance permits the individual to self-report race and ethnicity, as well as report more than one race. These changes afford individuals the right to freely express their racial or ethnic identity (Bollmer et al., 2014).

IDEA 2004 requires states that receive assistance under Part B of the Act to annually collect and examine data monitoring disproportionality. The data of interest specifically target the identification of students as children or adolescents with disabilities, the placement of students in particular educational settings, and the type of disciplinary actions assigned to students with disabilities (SWD), as described in [34 CFR 300.646(a)] [20 U.S.C. 1418(d)(1)] of the IDEA 2004 Handbook (“Disproportionality and Overidentification,” 2007). Another requirement of IDEA 2004 is for states to have policies and procedures in effect to prevent the inappropriate disproportionate representation by race and ethnicity in the areas of identification and placement for children with disabilities. The law requires states to annually disaggregate and examine data on suspension and expulsion rates by race and ethnicity in comparison to rates for nondisabled children. Finally, the law requires states to monitor school districts by operationally defining and calculating disproportionate representation of different racial and ethnic groups in special education services (“Disproportionality and Overidentification,” 2007).

In February 2016, the Office of Special Education and Rehabilitative Services (OSERS) with the United States Department of Education (USDE) released a report titled “Racial and Ethnic Disparities in Special Education: A Multi-Year Disproportionality Analysis by State, Analysis Category, and Race/Ethnicity,” (“Racial and Ethnic Disparities in Special Education,” 2016). The purpose of this report was to address disproportionality of minority students with disabilities. Although IDEA 2004 aspires to establish fairness and equality in the identification, placement, and discipline of students with disabilities, the report revealed disparities continue to exist and minority students remain more likely to be identified as having a disability and/or receive more severe disciplinary actions than their white counterparts (“Racial and Ethnic Disparities in Special Education,” 2016).

### **Disproportionality in Discipline**

Disproportionality in school discipline is something that has been found repeatedly over time (Skiba, Michael, Nardo & Peterson, 2002). One of the first times disproportionality in discipline was examined was in 1975 when the Children’s Defense Fund (CDF) examined data provided by the USDE Office for Civil Rights (OCR) on national statistics regarding school discipline (Children’s Defense Fund, 1975). CDF findings illustrated higher school reported suspension for black students than white students on a range of measures. Moreover, black students experienced greater odds of being suspended more than once in comparison to white youth (Children’s Defense Fund, 1975). However, there were no significant differences found in the length of suspension based on race (Skiba et al., 2002).

After the CDF’s report, numerous studies have found similar instances of disproportionality in school discipline in the latter twentieth century, particularly with suspension rates (Skiba et al., 2002). Toward this same end, according to Skiba et. al, other research

revealed African American students were more likely to receive harsher disciplinary actions, in comparison to students of other race/ethnicities who more frequently received mild disciplinary actions (2002). Likewise, studies have shown that students from low socioeconomic status homes, particularly those receiving free or reduced lunch, were at an increased risk for exclusionary disciplinary consequences (Skiba, Peterson, & Williams, 1997; Wu, Pink, Crain & Moles, 1982).

In 2004, the reauthorized IDEA required schools to “annually collect and examine data to determine if Significant Disproportionality based on race or ethnicity is occurring with respect to the incidence, duration, and type of disciplinary action, including suspensions/expulsions,” (Bollmer, Bethel, Munk & Bitterman, 2011, pg. 4). Significant disproportionality will be explained below in detail. Incidence may be defined as how many times that students ages 3 to 21 with disabilities received disciplinary actions (Bollmer et al., 2011). Duration is defined as the length of the expulsion or suspension (Bollmer et al., 2011). Finally, the type of disciplinary action is in relation to data relating to both in-school and out-of-school suspensions or expulsions (Bollmer et al., 2011). Furthermore, IDEA 2004 also requires states to analyze the following disciplinary categories, as clarified by OSEP Memo 08-09:

- Out-of-school suspensions/expulsions totaling 10 days or less;
- Out-of-school suspensions/expulsions totaling >10 days;
- In-school suspensions totaling 10 days or less;
- In-school suspensions totaling >10 days;
- Total number of disciplinary removals (Bollmer et al., 2011, pg. 5).

IDEA requires states to look at all three of these areas (in-school suspensions, out-of-school suspensions, and total removals) to make determinations on Significant Disproportionality (Bollmer et al., 2011).

Exclusionary practices, such as suspensions and expulsions, are used to remove students who have been branded as having problem behaviors from school (Achilles, McLaughlin, & Croninger, 2007). Regardless of the fact that these practices have been linked to problematic consequences, including academic failure, dropout, or family disruption, these practices continue to be used (Achilles et al., 2007). The most alarming statistic regarding disciplinary removals is that studies have shown that gender, race, ethnicity, disability, and socioeconomic status are all factors that increase an individual's risk for being suspended (Sullivan, Klingbeil, & Van Norman, 2013). In fact, over 25 years of research has shown that students of color are suspended and expelled two to three times more frequently than white students (Skiba et al., 2011).

A 2003 representative estimate study found that African American students face over 50% more risk of being suspended as compared to their white counterparts, while Native American students were 20% more likely and Hispanic students 10% more likely to be suspended as white students (Sullivan et al., 2013). Moreover, male students were twice as likely to be suspended in comparison to female students, putting black males at the highest risk of suspension of any group (Sullivan et al., 2013). A 2010 study found similar results and indicated that elementary level black students were twice as likely to receive an office disciplinary referral (ODR), and four times more likely to receive an ODR at the middle school level (Skiba et al., 2011).

Research regarding disciplinary actions has found that some minority groups, particularly African American students, were subjected to harsher punishments in comparison to white

students (Sullivan et al., 2013). According to Sullivan and colleagues, race was found to be a predictive factor in regard to suspension or expulsion. Research has also found that in comparison to white students, black students were subjected to harsher punishments for more minor offenses, such as being disrespectful towards a teacher (Sullivan et al., 2013). However, in terms of office disciplinary referrals, race was not found to be a predictive factor (Sullivan et al., 2013).

A 2008 national study conducted at the University of Michigan indicated that, between the years of 2001 and 2005, there were minimal racial and ethnic variations in school policy violations for drug, alcohol, and weapon related offenses (Wallace, Goodkind, Wallace & Bachman, 2008, pg. 47). This study suggests that in terms of major offenses, students are disciplined similarly despite race. However, the study also found that whenever a less serious school violation occurred, African American males were over 30% more likely to be referred for disciplinary actions and 33% more likely to receive a suspension or expulsion than a white student (Wallace et al., 2008, pg. 47; Bryan, Day-Vines, & Griffin, 2012). Because there is contradictory information relating to office referrals by student race, it is unclear if there is a direct correlation. A study completed by Girvan, Gion, McIntosh, and Smolkowski indicated that when analyzing office referrals nationally, there was minimal difference between objective office referrals (i.e. fighting), but significant disparities among subjective office referrals (i.e. defiance or disrespect) (2017).

For African American students, being overrepresented in the education system in terms of discipline may begin during the start of their academic careers. According to research conducted by the Yale University Child Study Center, prekindergarten black students enrolled in state-funded pre-k programs experienced expulsion rates that were over three times higher than

expulsion rates for students K-12 in total. The research found that the data suggested that the highest rates of expulsion were for 5-to-6 year old, African American students, and males (Gilliam, 2005; Bryan et al., 2012).

Students who receive special education services are also more likely to face exclusionary disciplinary practices, as well. Statistics have shown that while 7.6% of all students have been suspended at least one time, 20% of black students and special needs students have been suspended at least once. Furthermore, the number of multiple suspensions were increased among these groups, as well (Sullivan et al., 2013). Sullivan and colleague's study found that a surprising image appeared when comparing students who have been suspended once to students who have faced multiple suspensions: being black or receiving special education services presented the largest risk factor for multiple suspensions (2013).

### **Disproportionality in Special Education Identification**

The reauthorized IDEA of 2004 requires schools to analyze data on a yearly basis to determine Significant Disproportionality regarding special education identification. In addition to the separate Significant Disproportionality requires, IDEA 2004 requires states to report the percentage of districts with an overrepresentation of racial and minority populations within special education and related services that has occurred due to inappropriate identification as part of their Annual Performance Plan Indicator 9 (Bollmer et al., 2014). Annual Performance Plan Indicator 10 under IDEA 2004 requires states to report the percentage of districts with an overrepresentation of racial and minority populations within specific disability categories that has occurred due to inappropriate identification. In order to determine disproportionate representation, Part B10 under IDEA of 2004, requires states to analyze the following categories for students ages 6 through 21:



1. Intellectual Disabilities
2. Specific Learning Disabilities
3. Emotional Disturbance
4. Speech or Language Impairments
5. Other Health Impairments
6. Autism (Bollmer et al., 2011).

Part B9 under IDEA of 2004, on the other hand, requires states to analyze data for the all disabilities category for students ages 6 through 21 (Bollmer et al., 2011). Thus, the essential difference between Significant Disproportionality and indicator 9 and 10 requirement is inappropriate identification verses significant overrepresentation (Bollmer et al., 2011).

Disproportionality in special education identification is an area that has had consistent findings for decades. According to Losen and Orfield, “African American students account for only 14.8% of the general population of 6-to-21-year-old students, but they make up 20% of the special education population across all disabilities,” (2002; Blanchett, 2006). It has been found that black students are 2.8 times more likely to be identified as having one of the six disabilities listed under IDEA 2004 than other students with disabilities (Skiba, 2013). Statistics have shown that black students are twice as likely to be identified as emotionally disturbed and 2.7 times more likely to be identified as cognitively impaired than white students (Sullivan & Bal, 2013). Moreover, 2.64% of all black students are identified as intellectually disabled, compared to 1.18% of all white students (Skiba, Poloni-Staudinger, Simmons, Feggins-Azziz & Choong-Geun, 2005). Similarly, Native American students are twice as likely to be identified as having a Specific Learning Disability and 60% more likely to be identified as Cognitively Impaired (U.S. Department of Education, 2010; Sullivan & Bal, 2013). Similar findings have been found for

Latino, Asian/Pacific Islander students, and English language learners, as well (Sullivan & Bal, 2013).

These high-incidence categories that have been listed by IDEA 2004 are typically diagnosed by school personnel and rely on a “subjective referral and eligibility determination process that varies from district to district and from school to school within the same district,” (Blanchett, 2006, pg. 25). Misdiagnoses in these high-incidence categories are common due to the subjective judgements across settings and professionals, which results in disproportionality (Blanchett, 2006). Disproportionality is not as common in low-incidence categories, such as deaf, hard of hearing, blindness, and severe or multiple disabilities, because they require medical personnel and have a more standard method of diagnosis (Blanchett, 2006). Regardless of being placed in a low-incidence or high-incidence category, black students face more negative outcomes in comparison to white students (Blanchett, 2006).

Morgan et al. completed a study and found no evidence that racial and ethnic minority children are not significantly overidentified as having a disability and are underidentified as having speech or language impairments or health impairments (2015). The study indicated that black students were 58% less likely to be identified as having a learning disability, 57% less likely to be identified as having an intellectual disability, or 64% less likely to be identified as having an emotional disturbance in comparison to their white counterparts (Morgan et al., 2015). There were other findings in this study indicating the underrepresentation of minority children based on race, ethnicity, socioeconomic status, or English language learners (Morgan et al., 2015). Skiba et al. published a response to Morgan et al.’s findings, indicating that there was a research error due to sampling considerations (2015). They also indicated that at the same time

period, another study was conducted which found significant overrepresentation of minority students (Skiba et al., 2015).

### **Disproportionality in Least Restrictive Environment**

The reauthorized IDEA of 2004 requires states to analyze data on a yearly basis to determine Significant Disproportionality in placement. States are required to examine these three different educational placements:

1. Inside regular class less than 40% of the day
2. Inside regular class no more than 79% of the day
3. Separate schools and residential facilities (Bollmer et al., 2011, pg. 4).

Furthermore, IDEA 2004 requires states to place students in the least restrictive environment possible that is suitable for their specific needs (Bollmer et al., 2011).

Certain racial and ethnic minority groups have been disproportionately represented in special education (Wiley, Brigham, Kauffman, & Bogan, 2013). Research has shown that once minority students have been identified for special education services, they are more likely to be placed in a more restrictive environment than a white student in the same disability category (Artiles, Kozleski, Trent, Osher & Ortiz, 2010). Furthermore, research has also demonstrated that students of color, specifically African American students, are overrepresented in more restrictive environments and underrepresented in less restricted environments (Skiba, et al., 2008). According to Artiles and colleagues, white students are twice as likely to be placed in general education, less restrictive environments than black students (2010).

Placing students with disabilities in more restrictive environments can have detrimental effects on student's learning outcomes. However, students who are placed in less restrictive

environments show positive outcomes (Artiles et al., 2010). Data has shown that students with disabilities who spend more time in general education classrooms are absent less, perform better academically, and score higher on standardized tests (Artiles et al., 2010). They have also been found to complete more assignments, demonstrate better reading abilities and enhanced academic function, and show higher levels of social functioning skills (Skiba et al., 2006). Moreover, there are benefits for nondisabled students interacting with disabled students, such as improved social interaction, exhibiting more appropriate behaviors, improved self-esteem, and enhanced language development (Skiba, Poloni-Staudinger, Gallini, Simmons, & Feggins-Azziz, 2006).

### **Significant Disproportionality**

In education law and practice, the term “Significant Disproportionality” refers to a narrower and separate requirement under IDEA 2004 (34 CFR §300.646(b) which is not synonymous with disproportionality or disproportionate representation under (34 CFR §300.8). The Significant Disproportionality requirement additionally imposes fiscal allocations to remedy the race/ethnicity disparities, which will be addressed subsequently. Significant Disproportionality is the term that is used to describe when districts identify, discipline, or place children in more restrictive environments from a racial or ethnic group at a rate significantly higher than their peers (Equity in IDEA, 2016).

IDEA 2004 requires states to define Significant Disproportionality based on race and ethnicity at both local and state education levels. Presently, IDEA requires states to individually define and operationalize Significant Disproportionality in the areas of identification (the identification of children with disabilities), least restrictive environment (the placement of

children with disabilities in a specific environment), and discipline (disciplinary practices, including suspensions or expulsions) (“Significant Disproportionality,” 2013). States must disaggregate data on an annual basis to find out if they are disproportionately represented (“Disproportionality and Overidentification,” 2007). When states make definitions regarding Significant Disproportionality, they analyze the size of the local education agency’s school age population and its composition by race/ethnicity, as well as the composition of different race/ethnicities 1) identified for special disability categories; 2) placed in more restrictive special education environments; and 3) receiving disciplinary removals. (Herzik, 2015).

Congress originally afforded states flexibility to develop their own definitions for Significant Disproportionality in an attempt to reduce disproportionality throughout the nation. However, data from the individual states does not show a reduction in disproportionality, which has created a controversy (Herzik, 2015). In 2013, the United States Government Accountability Office (GAO), conducted a study that reviewed methods data for providing early intervening services for 16 states from the years 2009 to 2011 (Scott, 2013). The study indicated that in 2010, 356 school districts were identified as having Significant Disproportionality, 73 of which were in Louisiana. The GAO reviewed the definitions that each state used for Significant Disproportionality and found extensive disparities among the 16 states that were reviewed (Scott, 2013).

The GAO found when conducting their review that states were defining Significant Disproportionality in a manner that made it improbable that districts would be identified, which would require the states to provide early intervening services (Scott, 2013). The report went on to explain that the overrepresentation of racial and ethnic groups in special education is often overlooked because of states having the flexibility to make their own definitions of Significant

Disproportionality (Scott, 2013). This finding shows that IDEA's requirements that states define Significant Disproportionality leads to increased overrepresentation in special education (Herzik, 2015).

Because the current system for defining disproportionality has been considered ineffective due to wide variations among SEA definitions, many problems have emerged regarding the overrepresentation of racial and ethnic groups in special education (Herzik, 2015). In order to address these problems, a nationally standardized approach to defining Significant Disproportionality is believed necessary by some policy makers, educators, disability activists, and civil rights activists. This proposed standardization would lead to a consistent use of definitions that could be understood nationally, which would ideally lead to a reduction in overrepresentation of minority students in special education (Herzik, 2015, pg. 7). Therefore, the new amendments which have been added into IDEA in February of 2016 are essential because they provide a standardized method for determining Significant Disproportionality ("Racial and Ethnic Disparities in Special Education," 2016).

In December of 2016, under the presidency of President Barack Obama, the USDE released "Equity in IDEA," which are the final regulations under Part B that aim to promote equity in the treatment of minority children with disabilities. Equity in IDEA requires states to identify districts with Significant Disproportionality in special education identification, least restrictive environment, and disciplinary actions. The final regulations used the risk ratio as described above and required states to use a common methodology to prevent broad definitions leading to Significant Disproportionality ("Equity in IDEA," 2016).

However, due to changes in political administration, in February 2018, the USDE released a statement that they have proposed changing the "Equity in IDEA" policy compliance

date by two years, making the compliance date July 2020, rather than July 2018 (Friday, 2018). Due to the announcement of these policy change proposals, the ranking members of the U.S. Senate Health, Education, Labor, and Pensions Committee and the House Education and the Workforce Committee wrote a letter to the assistant secretary of the Office of Special Education and Rehabilitation Services, Johnny Collett, to address their concerns with this proposal. They stated that they strongly oppose the delay of the “Equity in IDEA” rule and encourage the USDE to maintain the original compliance date for the rule. They indicated that, “A delay of this regulation is misguided, harmful to students, and disregards the clear intent of Congress,” (Scott & Murray, 2018). Scott and Murray explained that although allowing states the flexibility to create their own definitions of Significant Disproportionality may have been well-intentioned, it resulted in a limited number of school districts being identified, despite the fact that it was commonly known that minorities were being overrepresented (2018). By delaying the “Equity in IDEA” rule, Scott and Murray report that the USDE is “failing to address the pervasive and ongoing problem of disparate treatment of children of color,” (2018).

### **Purpose of the Present Study**

The large body of research on disproportionality indicates that minority students, particularly African American students, are more likely to be identified as a student who needs special education, placed in more restrictive environments, face harsher punishments, and drop out of school (Rocque & Paternoster, 2011). The National Association of School Psychologists (NASP) advocates for nondiscriminatory discipline, identification, and placement practices. NASP, in its position statement against disproportionality, outlines the negative consequences of disproportionality, such as increased likelihood of academic failure, retention, participation in the juvenile justice system, dropout, and lower life time wages (“Position Statement,” 2013). NASP

similarly maintains that school psychologists are in “unique positions to employ promising practices and interventions to reduce disproportionate representation,” (“Position Statement,” 2013). Additionally, Domain 8 of the NASP Practice Model Domains indicates that school psychologists should advocate for social justice and promote fairness in schools. Therefore, it is important that school psychology literature has a focus on providing an equitable and fair environment for all students (NASP, 2016).

Because disproportionality has historically been an issue in the American education system, the purpose of the present study is to analyze the amount of research that has been published on the topic of disproportionality in school psychology and special education journals from 2010-2017. The examiner will use bibliometric content analysis techniques, while minimizing the error traditionally associated with content analyses by accessing an electronic database of journals. The following research questions will be addressed in the current study:

## **Research Questions**

### **Research Question 1:**

What is the number of articles published in school psychology and in special education journals relating to disproportionality from 2010-2017, and during which year were the most disproportionality articles published?

### **Research Question 2:**

What school psychology and special education journals most frequently published articles relating to disproportionality from 2010-2017?



**Research Question 3:**

What is the number of articles published in school psychology and in special education journals relating to Significant Disproportionality from 2010-2017?

**Research Question 4:**

Which authors (first and collaborating) are most frequently disseminating scholarly disproportionality articles in the school psychology and special education journals?

**Research Question 5:**

Is the majority of research done on disproportionality more theoretical or empirical in nature?

**Research Question 6:**

What area of disproportionality was most widely referenced in school psychology and in special education journals from 2010-2017?

**Research Question 7:**

Which populations/subgroups were most frequently studied in disproportionality literature within school psychology and within special education articles?

**Research Question 8:**

How many articles addressed possible disproportionality solutions and what were some of the solutions addressed?

## CHAPTER II

### METHOD

#### **Bibliometric Content Analysis**

To answer the previously stated research questions, the investigator completed a bibliometric content analysis. A bibliometric study is beneficial for providing a quantitative analysis of previously published literature (Ellegaard & Wallin, 2015). Bibliographic content analyses require a systematic review of the literature to obtain information within published literature for a specific content area. These studies often involve different material categories, such as journal articles, books, and theses or dissertations (Ellegaard & Wallin, 2015). For the purpose of this study, a bibliometric content analysis was conducted focusing only on the scholarly disproportionality literature published within school psychology and special education articles from 2010-2017. Articles were compiled from the online database, EbscoHOST.

#### **Journal Pool Selection Procedures**

Lists of journals that are relevant to school psychology and special education were generated on several search engines, including Google Scholar and EBSCOhost. The criteria for journal inclusion in the study were as follows: each journal must have an overall focus on the field of school psychology or special education as stated in the purpose and scope of the journal and each journal must be available in the Marshall University online library for the years 2010-2017. Five school psychology journals and five special education journals met each condition and were thereby included in the journal pool. The following school psychology journals were selected to be used: *Psychology in the Schools (PITS)*, *Journal of School Psychology (JSP)*, *School Psychology Quarterly (SPQ)*, *School Psychology Review (SPR)*, and *Journal of Applied*

*School Psychology (JASP)*. The following special education journals were selected to be used: *Journal of Learning Disabilities (JDX)*, *Exceptional Children (EC)*, *Remedial and Special Education (RSE)*, *Journal of Positive Behavior Interventions (JBI)*, and *Education and Treatment of Children (ETC)*. It should be noted that there are other major journals that are relevant within the fields of school psychology and special education that were not included. For example, the examiner was not able to access *School Psychology International*, a major school psychology journal, due to a lack of access.

### **Article Selection Procedures**

The first step required the investigator analyze five school psychology and five special education journals between 2010 and 2017. Search terms included all possible derivatives of the following terms:

- Disproportionality
- Disproportionate Representation
- Overrepresentation
- Overserved
- Significant Disproportionality
- Underrepresentation
- Underserved

The investigator typed the journal name for each journal into EBSCOhost and clicked on the Search button and marked the range of years from 2010-2017. The investigator examined each article within each volume of each journal and searched individual abstracts for keywords. The investigator opened each article abstract and conducted the search for each key word using Ctrl+F. If no keywords were found, the article would be closed and the investigator would move

onto the next article. If a keyword was found, the investigator saved the article into a Word document to further search the information within the article.

In Excel, the investigator coded information about each article. For articles not including one of the listed keywords, the investigator added the article to the database along with the name of the journal, the year, volume number, issue number, and article name. For articles containing disproportionality keywords, the investigator added the following information into the Excel database: the primary author and up to six additional collaborating authors, type of paper (i.e., conceptual or empirical in nature), the area of disproportionality discussed, the groups studied, whether Significant Disproportionality was discussed, what area of discipline/identification/least restrictive environment was discussed, if causes of, and solutions for, disproportionality were outlined in the article.

### **Research Questions and Data Analysis**

To analyze the data collected for this study, the investigator reviewed all articles published within the ten selected journals over the eight-year period and searched for specific keywords. Any article including any single keyword was subject to a subsequent content analysis to answer research questions delineated in the introductory section. Articles were coded and the investigator then used the PivotTables function in Microsoft Excel to analyze data and answer each of the research questions.

**Research Question 1:** What is the number of articles published in school psychology and in special education journals relating to disproportionality from 2010-2017, and during which year were the most disproportionality articles published?

For the purpose of this study, articles relevant to disproportionality will be defined as articles discussing the overrepresentation or underrepresentation of a specific population in a certain population group. To answer this research question, the investigator created a PivotTable within Microsoft Excel to determine the number of articles relating to disproportionality by creating two separate tables (one for each field) and selected articles that were relevant to disproportionality to be displayed. The PivotTable then produced the number of articles relevant to disproportionality that was published by each journal.

To determine how many articles have been published in school psychology journals relevant to disproportionality from 2010-2017, the investigator selected the five school psychology journals and selected articles that were relevant to disproportionality to be displayed. The PivotTable then produced the number of articles relevant to disproportionality that were published by each journal. Similarly, to determine how many articles have been published in special education journals relevant to disproportionality from 2010-2017, the investigator selected the five special education journals and selected articles that were relevant to disproportionality to be displayed. The PivotTable then produced the number of articles relevant to disproportionality that were published by each journal.

To determine which year the most articles relating to disproportionality were published, the investigator selected all ten journals and included the year and articles that were relevant to disproportionality. The table then produced a chart outlining the number of articles that were published by each specific journal during a specific year. This data was then used to determine which year the most articles relating to disproportionality were published within the ten journals.

**Research Question 2:** What school psychology and special education journals most frequently published articles relating to disproportionality from 2010-2017?

To determine how many articles have been published in school psychology journals relevant to disproportionality from 2010-2017, the investigator selected the five school psychology journals and selected articles that were relevant to disproportionality to be displayed. The PivotTable then produced the number of articles relevant to disproportionality that were published by each journal. Similarly, to determine how many articles have been published in special education journals relevant to disproportionality from 2010-2017, the investigator selected the five special education journals and selected articles that were relevant to disproportionality to be displayed. The PivotTable then produced the number of articles relevant to disproportionality that were published by each journal.

**Research Question 3:** What is the number of articles published in school psychology and in special education journals relating to Significant Disproportionality from 2010-2017?

To determine the number of articles published in the ten journals relating to Significant Disproportionality, the examiner reviewed each article and did a search of the article for “Significant Disproportionality.” The examiner then added a section into the Excel database to code whether or not each article discussed Significant Disproportionality. To determine the frequency that Significant Disproportionality was discussed, a PivotTable was created and included all journals, relevant disproportionality articles, and articles that included Significant Disproportionality.

**Research Question 4:** Which authors (first and collaborating) are most frequently disseminating scholarly disproportionality articles in the school psychology and special education journals?

To make this determination, the investigator made a PivotTable in Microsoft Excel by selecting the first author and articles that were relevant to disproportionality. A table was then created that included the names of the first authors and the number of articles that they have published relevant to disproportionality. An analysis was also done to determine the most frequently cited co-authors, as well, by creating a table including collaborating authors and the number of articles they have published relevant to disproportionality.

**Research Question 5:** Is the majority of research done on disproportionality more theoretical or empirical in nature?

To make this determination, the investigator created a PivotTable in Microsoft Excel and selected all journal articles and then searched the relevant disproportionality articles that were conceptual and came up with a total number. The investigator then selected empirical articles to determine the total number of empirical articles. For the purpose of this study, empirical studies will be defined as studies that collected data and completed data analysis as part of the study, while conceptual studies will be defined as studies that discussed issues but did not produce original data. Based on this information, it is suggested that the majority of articles are empirical in nature.

**Research Question 6:** What area of disproportionality was most widely referenced in school psychology and in special education journals from 2010-2017?

To determine the area of disproportionality most widely referenced in the selected journals, the investigator reviewed the article to determine if discipline, least restrictive environment, or identification was involved and coded the information into an Excel database to indicate if one or more of the areas was discussed. An Excel PivotTable was then created to

analyze the content. The investigator selected the journal, the area of disproportionality discussed, and relevant disproportionality topics. The PivotTable then produced the number of articles published by each journal relating to specific areas of disproportionality.

**Research Question 7:** Which populations/subgroups were most frequently studied in disproportionality literature within school psychology and within special education articles?

To determine what groups were studied most frequently in school psychology and in special education articles relevant to disproportionality, the investigator reviewed articles to search for groups or subgroups studied and coded this information into an excel database. The groups that were coded include race/ethnicity, socioeconomic status, gender, and English language learner. To determine groups most frequently discussed in school psychology journals, the investigator selected the five school psychology journals, the relevant disproportionality articles, and the group studied. The investigator individually selected each group to determine the number of articles published by each school psychology journal related to each specific group. Similarly, to determine what groups were studied most frequently in special education articles, the investigator selected the five special education journals, the relevant disproportionality articles, and the group studied. The investigator individually selected each group to determine the number of articles published by each school psychology journal related to each specific group.

**Research Question 8:** How many articles addressed possible disproportionality solutions and what were some of the solutions addressed?

The examiner reviewed the articles relevant to disproportionality to determine if they addressed possible disproportionality solutions. This information was then coded into an excel



database and the examiner noted which possible solutions were addressed. The examiner then created a PivotTable in Microsoft Excel and selected the relevant disproportionality articles, all ten journals, and whether or not the article addressed disproportionality solutions. A table was created including the number of articles published by each journal that addresses disproportionality solutions. The investigator then made a qualitative list under the Excel database to include a list of possible solutions presented within the literature.

## CHAPTER III

### RESULTS

The present study outlines the bibliometric indicators of the research related to disproportionality literature published within ten major school psychology and special education journals 2010 to 2017. Table 1 includes the number of articles published by each journal by year. When analyzed collectively, of the 3,088 articles analyzed, 55% were published within school psychology journals (n=1,710), while 45% of articles were published within special education journals (n=1,378). In terms of school psychology journals, the journal, *Psychology in the Schools (PITS)*, published the most articles (n=664, 21.5% of the total), while the journal, *Journal of Applied School Psychology* published the least number of articles (n=160, 5% of the total). In regard to special education journals, *Journal of Learning Disabilities* published the most articles (n=383, 12% of the total), while the journal, *Journal of Positive Behavior Interventions*, published the least number of articles (n=195, 6% of the total).

The investigator searched for a list of keywords in abstracts of all articles published within 10 major school psychology and special education journals from the years 2010-2017. Overall, there were 38 articles total that included at least one of the keywords. However, six of the 38 articles were later excluded because they did not have a primary focus on disproportionality but employed the use of a keyword to justify the need for study or introduce a special issue topic for a journal. Therefore, these six articles were determined to be irrelevant to the field of disproportionality and were excluded from data analysis. Articles were excluded for the following reasons: one article involved test validity of an intelligence assessment, one article was related to a number sense intervention, three articles involved introductions to special topics, and one article was about Multi-Tiered Systems of Support, but was unrelated to

disproportionality. Therefore, when analyzed collectively, out of the 3,088 articles analyzed, there were 32 articles total that were directly related to disproportionality.

**Table 1. The number of articles published by each journal from the research years 2010-2017**

Year	School Psychology Journals					Special Education Journals					Total
	JASP	JSP	PITS	SPQ	SPR	EC	ETC	JDX	JBI	RSE	
2010	22	36	80	21	47	29	34	45	24	47	385
2011	23	45	85	25	36	31	36	46	24	44	395
2012	20	59	82	21	26	31	31	46	26	34	376
2013	21	56	76	27	29	31	40	47	26	33	386
2014	19	44	72	42	31	34	37	44	26	35	384
2015	16	41	78	42	30	31	27	45	25	42	377
2016	19	47	87	29	25	30	27	47	24	30	365
2017	20	54	104	42	31	28	28	63	20	30	420
<b>Total</b>	160	382	664	249	255	245	260	383	195	295	3,088

**Research Question 1:** What is the number of articles published in school psychology and in special education journals relating to disproportionality from 2010-2017, and during which year were the most disproportionality articles published?

Table 2 shows the number of articles that were related to disproportionality that were published in each journal during the eight-year period. Overall, there were 11 school psychology and 21 special education articles relating to disproportionality. Therefore, there were 32 articles relating to disproportionality total. Based on these results, special education journals have published more research relevant to disproportionality compared to school psychology journals. However, these results suggest that in both fields, there is minimal research done in this area. Appendix B includes a list of the names of each article relating to disproportionality.

**Table 2. Number of articles published within school psychology and special education journals relating to disproportionality from 2010-2017**

<b>Journal</b>	<b>Total Number of Articles Published Regarding Disproportionality</b>
Journal of Applied School Psychology	0
Journal of School Psychology	0
Psychology in the Schools	5
School Psychology Quarterly	1
School Psychology Review	5
Exceptional Children	8
Journal of Learning Disabilities	1
Journal of Positive Behavior Interventions	1
Remedial and Special Education	7
Education and Treatment of Children	4
Total Number of Articles Relating to Disproportionality	32

Results indicated that the year that disproportionality was most frequently studied within school psychology and special education journals was 2017 (n=6), while the year that disproportionality was discussed the least was 2010 (n=1). Table 3 includes the number of articles that focus on each disproportionality area by year for the years 2010-2017.

**Table 3. Number of articles published within school psychology and special education journals relating to disproportionality by year from 2010-2017**

Year	Number of Articles Published Relating to Disproportionality
2010	1
2011	4
2012	5
2013	4
2014	5
2015	3
2016	4
2017	6

**Research Question 2:** What school psychology and special education journals most frequently published articles relating to disproportionality from 2010-2017?

Table 4 shows the number of articles published within school psychology journals relating to disproportionality. The school psychology journals that published the most articles relating to disproportionality were *Psychology in the Schools* (n=5) and *School Psychology Review* (n=5). Overall, there were 11 school psychology articles relating to disproportionality total.

**Table 4. Number of articles published within school psychology journals relating to disproportionality from 2010-2017**

<b>Journal</b>	<b>Total Number of Articles Published Regarding Disproportionality</b>
Journal of Applied School Psychology	0
Journal of School Psychology	0
Psychology in the Schools	5
School Psychology Quarterly	1
School Psychology Review	5
Total Number of Articles Relating to Disproportionality	11

Table 5 shows the number of articles published within special education journals that were related to disproportionality. The special education journal that published the most articles relating to disproportionality was *Exceptional Children* (n=8), followed by *Remedial and Special Education* (n=7). Overall, there were 21 special education articles relating to disproportionality total. Based on these results, it appears that there is more literature published within special education journals compared to school psychology journals.

**Table 5. Number of articles published within special education journals relating to disproportionality from 2010-2017**

<b>Journal</b>	<b>Total Number of Articles Published Regarding Disproportionality</b>
Exceptional Children	8
Journal of Learning Disabilities	1
Journal of Positive Behavior Interventions	1
Remedial and Special Education	7
Education and Treatment of Children	4
Total Number of Articles Relating to Disproportionality	21

**Research Question 3:** What is the number of articles published in school psychology and in special education journals relating to Significant Disproportionality from 2010-2017?

Overall, there was only one article published that was related to Significant Disproportionality and it was published within school psychology journal *School Psychology Review*. The article was titled “School-Based Autism Identification: Prevalence, Racial Disparities, and Systemic Correlates.” This article discussed autism identification and indicated that because Significant Disproportionality is widespread, state departments of education should examine districts for racial disproportionality in autism identification (Sullivan, 2013).

**Research Question 4:** Which authors (first and collaborating) are most frequently disseminating scholarly disproportionality articles in the school psychology and special education journals?



Table 6 demonstrates the impact of individual authors on individual school psychology and special education journals and on the area of disproportionality in general. Overall, there were a total of 25 first authors. The most frequently referenced first author was Amanda Sullivan (n=4), followed by Chad Rose (n=3), Aydin Bal (n=2), and Claudia Vincent (n=2). All other authors were referenced as first authors for disproportionality articles one time.

**Table 6. Number of articles relating to disproportionality published by first author from 2010-2017**

<b>Author</b>	<b>Total Number of Articles Published Regarding Disproportionality</b>
Annamma, Subini	1
Artiles, Alfredo	1
Bal, Aydin	2
Boneshefski, Michael	1
Ford, Donna	1
Girvan, Erik	1
Gregory, Anne	1
Helman, Amanda	1
Hernandez, Maria	1
Kincaid, Aleksis	1
Morgan, Paul	1
Pas, Elise	1
Peters, Christina	1
Robertson, Stephanie	1
Rose, Chad	3
Sciuchetti, Maria	1
Shifrer, Dara	1
Simpson, Cynthia	1
Skiba, Russell J	1
Sullivan, Amanda	4
Sweller, Naomi	1
Thorius, Kathleen	1
Umansky, Ilana	1
Vincent, Claudia	2
Wiley, Andrew	1

In addition to looking at first authors, the investigator analyzed the cumulative effect of all co-authors. Table 7 demonstrates the impact of secondary authors on individual school psychology and special education journals and on the area of disproportionality in general. Overall, there were 24 secondary authors total. The most frequently referenced secondary authors were Amanda Sullivan (n=2) and Elizabeth Kozleski (n=2). All other authors were published as secondary authors for disproportionality articles one time. There were 21 third authors; 10 fourth authors; eight fifth authors; four sixth authors; and one seventh author.

Based on the results of this analysis, it appears that Amanda Sullivan was the most frequently published first author and co-author within school psychology and special education disproportionality research from 2010-2017. Amanda Sullivan, Ph.D., is an associate professor and the school psychology program coordinator at the University of Minnesota (Sullivan, 2017).

**Table 7. Number of articles relating to disproportionality published by second authors from 2010-2017**

<b>Author</b>	<b>Total Number of Articles Published Regarding Disproportionality</b>
Bal, Aydin	1
Brigham, Frederick	1
Calhoon, Mary Beth	1
Farkas, George	1
Gage, Nicholas	1
Gion, Cody	1
Graham, Linda	1
Hafen, Christopher A	1
Horner, Robert H.	1
Klingbeil, David A.	1
Kozleski, Elizabeth	2
Kranzler, John	1
Larson, Kristine	1
Maxcy, Brendan	1
Muller, Chandra	1
Pfeiffer, Steven	1
Rose, Chad	1
Runge, Timothy	1
Simpson, Cynthia	1
Sprague, Jeffrey	1
Stormont, Melissa	1
Sullivan, Amanda	2
Thompson, Karen	1
Tobin, Tary	1

**Research Question 5:** Is the majority of research done on disproportionality more theoretical or empirical in nature?

When analyzed collectively, of the 32 articles analyzed that were relevant to disproportionality, 28% were conceptual in nature (n=9), while 72% were empirical in nature (n=23). Table 8 shows the number of articles published within school psychology journals relating to disproportionality that were empirical and conceptual in nature. Overall, of 11

journals relating to disproportionality, 2 were conceptual in nature, while 9 were empirical in nature.

**Table 8. Number of articles published within school psychology journals relating to disproportionality from 2010-2017 that were conceptual or empirical in nature**

Journal	Conceptual Articles	Empirical Article
Journal of Applied School Psychology	0	0
Journal of School Psychology	0	0
Psychology in the Schools	0	3
School Psychology Quarterly	0	1
School Psychology Review	2	5
Total Number	2	9

Table 9 shows the number of articles published within special education journals relating to disproportionality that were empirical and conceptual in nature. Overall, of 21 journals relating to disproportionality, 7 were conceptual in nature, while 14 were empirical in nature.

**Table 9. Number of articles published within special education journals relating to disproportionality from 2010-2017 that were conceptual or empirical in nature**

Journal	Conceptual Article	Empirical Article
Exceptional Children	2	6
Journal of Learning Disabilities	1	0
Journal of Positive Behavior Interventions	1	0
Remedial and Special Education	3	4
Education and Treatment of Children	0	4
Total Number	7	14

**Research Question 6:** What area of disproportionality was most widely studied in school psychology and in special education journals from 2010-2017?

When analyzed collectively, of the 32 articles analyzed that were relevant to disproportionality, 66% were related to disproportionality of special education identification (n=21); 28% were related to disproportionality of discipline (n=9); 3% were related to disproportionality of least restrictive environment (n=1); and 3% were related to disproportionality of 1 or more area, which involved one article that discussed disproportionality of both discipline and special education identification. Based on this information, it is suggested that the majority of articles relating to disproportionality in special education and school psychology literature are focused on special education identification. Table 10 includes the number of articles that focus on each disproportionality area.

**Table 10. Number of articles relating to disproportionality published within school psychology and special education journals and the disproportionality area of focus**

<b>Identification</b>	<b>Discipline</b>	<b>Least Restrictive Environment</b>	<b>More Than One Area</b>	<b>Total Number</b>
21	9	1	1	32

Table 11 shows the number of articles relating to disproportionality published within school psychology journals and the disproportionality area of focus. The disproportionality area that was most widely discussed within school psychology literature was special education identification (n=6), followed by the area of discipline (n=5). The disproportionality area of least restrictive environment was not discussed within the analyzed school psychology journal articles.

**Table 11. Number of articles relating to disproportionality published within school psychology journals and the disproportionality area of focus**

<b>Journal</b>	<b>Identification</b>	<b>Discipline</b>	<b>Least Restrictive Environment</b>	<b>More Than One Area</b>
Journal of Applied School Psychology	0	0	0	0
Journal of School Psychology	0	0	0	0
Psychology in the Schools	4	1	0	0
School Psychology Quarterly	0	1	0	0
School Psychology Review	2	3	0	0
<b>Total Number</b>	<b>6</b>	<b>5</b>	<b>0</b>	<b>0</b>

Table 12 shows the number of articles relating to disproportionality published within special education journals and the disproportionality area of focus. The disproportionality area that was most widely discussed within special education literature was special education identification (n=15), followed by the area of discipline (n=4). There was one special education article focusing on disproportionality of least restrictive environment and placement in the juvenile justice system, and one article focusing on both disproportionality of special education identification and discipline.

**Table 12. Number of articles relating to disproportionality published within special education journals and the disproportionality area of focus**

Journal	Identification	Discipline	Least Restrictive Environment	More Than One Area
Exceptional Children	8	0	0	0
Journal of Learning Disabilities	1	0	0	0
Journal of Positive Behavior Interventions	0	1	0	0
Remedial and Special Education	5	0	1	1
Education and Treatment of Children	1	3	0	0
Total Number	15	4	1	1

**Research Question 7:** Which groups were most frequently studied in disproportionality literature within school psychology and within special education articles?

When the 32 articles relating to disproportionality were analyzed, the groups that were studied were noted and the groups include race/ethnicity, English Language Learners, socioeconomic status, gender, and multiple groups. Articles focusing on multiple groups included articles that discussed disproportionality with one or more group, such as race/ethnicity, gender, and socioeconomic status. Based on the results, it appears that race/ethnicity was discussed the most (n=12), while socioeconomic status and gender were the least discussed groups (n=1). Table 13 provides the number that each group was discussed within the articles



collectively. The number of articles that focused on a specific group or groups was 25 (78% of the total), as not all articles were focused on a specific group.

**Table 13. Number of articles relating to disproportionality published within school psychology journals and the disproportionality group of focus**

Race/Ethnicity	English Language Learner	Socioeconomic Status	Gender	Multiple Groups
12	5	1	1	6

Table 14 shows the number of articles published within school psychology journals relating to disproportionality and the specific groups discussed within the articles. Overall, of 11 articles relating to disproportionality, 5 focused on a specific group. It appears that within school psychology literature, race/ethnicity is the main disproportionality group of discussion (n=3), followed by English language learners (n=1). Socioeconomic status and gender were not discussed within relevant school psychology and special education articles.

**Table 14. Number of articles relating to disproportionality published within school psychology journals and the disproportionality group of focus**

<b>Journal</b>	<b>Race/Ethnicity</b>	<b>English Language Learner</b>	<b>Socioeconomic Status</b>	<b>Gender</b>	<b>Multiple Groups</b>
Journal of Applied School Psychology	0	0	0	0	0
Journal of School Psychology	0	0	0	0	0
Psychology in the Schools	0	1	0	0	0
School Psychology Quarterly	1	0	0	0	0
School Psychology Review	2	0	0	0	1
<b>Total</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>

Table 15 shows the number of articles published within special education journals relating to disproportionality and the specific groups discussed within the articles. Overall, of 21 articles relating to disproportionality, 20 focused on a specific group. It appears that within special education literature, race/ethnicity is the main disproportionality group of discussion (n=9), followed by English language learners (n=4). Socioeconomic status and gender were each discussed in one article, while there were five articles focusing on more than one group.

**Table 15. Number of articles relating to disproportionality published within special education journals and the disproportionality group of focus**

Journal	Race/Ethnicity	English Language Learner	Socioeconomic Status	Gender	Multiple Groups
Exceptional Children	3	2	0	0	3
Journal of Learning Disabilities	0	0	0	0	1
Journal of Positive Behavior Interventions	1	0	0	0	0
Remedial and Special Education	1	2	1	1	1
Education and Treatment of Children	4	0	0	0	0
Total Number	9	4	1	1	5

**Research Question 8:** How many articles addressed possible disproportionality solutions?

The investigator searched articles that were identified as being directly related to disproportionality to search for possible disproportionality solutions. Overall, there were a total of eight articles that addressed possible disproportionality solutions. Table 16 shows the number of articles that addressed disproportionality solutions that were published in each journal during the eight-year period. Based on these results, it appears that *Remedial and Special Education* is the journal that addresses disproportionality solutions most frequently (n=3). Some of the possible solutions for disproportionality that were addressed include: the use of School Wide

Positive Behavior Interventions and Supports (SWPBIS), Response to Intervention (RtI), coaching teachers to support culturally response classroom management strategies, and providing students with disabilities direct instruction in social and communication skills.

**Table 16. Number of articles published within school psychology and special education journals that addressed disproportionality solutions from 2010-2017**

<b>Journal</b>	<b>Total Number of Articles Published Regarding Disproportionality</b>
Psychology in the Schools	1
School Psychology Review	1
Exceptional Children	1
Journal of Positive Behavior Interventions	1
Remedial and Special Education	3
Education and Treatment of Children	1
Total Number of Articles Relating to Disproportionality	8

## **CHAPTER IV**

### **DISCUSSION**

This study was conducted to analyze the amount of research that has been published on the topic of disproportionality in school psychology and special education journals from 2010-2017. Disproportionality in education has existed for decades; therefore, it is important to determine what educators have done to obviate this issue. This study is important for school psychologists and special educators in particular because it examines the extent to which disproportionality has been researched within each respective field. It provides evidence that the fields of special education and school psychology have published minimal literature relating to disproportionality during the most recent eight year period.

The examiner used bibliometric content analysis techniques to examine the breadth of research relating to disproportionality published within 10 school psychology and special education journals from 2010-2017. The articles were accessed online through EbscoHOST and the investigator searched for articles relating to disproportionality by searching keywords in abstracts. The investigator compiled all articles from the ten journals over the eight-year period within an Excel chart to analyze the data and answer research questions.

#### **Research Questions**

#### **Amount of Research Published Regarding Disproportionality in School Psychology and Special Education Journals from 2010-2017**

A large goal of this bibliometric content analysis was to determine the amount of research that has been published in the fields of school psychology and special education. In order to obtain this goal, the investigator chose 10 major school psychology and special education

journals and analyzed each article published in the 10 journals over an eight-year period. The investigator searched the abstracts of the articles for keywords relating to disproportionality and then analyzed the data to answer the research questions. Over the eight-year period, there were 3,088 articles published within the 10 journals and of those 3,088 articles, 55% were published within school psychology journals (n=1,710), while 45% were published within special education journals (n=1,378).

Overall, there were 38 articles that included one of the selected keywords. However, only 32 of the 38 articles were determined to be directly related to the topic and analyzed. Of those 32 articles, 34% were school psychology articles (n=11) and 66% were special education articles (n=21), indicating that special education journals publish more literature relating to disproportionality compared to school psychology journals. Of the selected journals, *Exceptional Children* was the journal that published the most disproportionality articles (n=8) in special education journals, while *Psychology in the Schools* was the journal that published the most disproportionality articles in school psychology journals (n=5).

Of the 32 articles relating to disproportionality, only one article discussed Significant Disproportionality within the articles and was published within a school psychology journal. The article indicates that because Significant Disproportionality is widespread, racial disparities in autism identification should be identified. Although there was a mention of Significant Disproportionality, it was not discussed further within the article. The finding that only one article discussed Significant Disproportionality indicates that researchers within the major scholarly outlets in the fields of school psychology and special education have been relatively silent on this issue. This silence exists despite the fact that many authorities, such as disability and civil rights activists, politicians, educators, etc. have determined that Significant

Disproportionality is necessary in changing the system which perpetuates disproportionality in education.

The most widely published first author of disproportionality articles was Amanda Sullivan (n=4), followed by Chad Rose (n=3). Amanda Sullivan was also the most frequently published secondary author of disproportionality literature, as well. As stated above, Amanda Sullivan is an associate professor and school psychology program coordinator at the University of Minnesota. Additionally, of the 32 remaining articles, all except for one article involved disproportionality within the United States; the exception article was related to disproportionality within the Australian education system. Therefore, the journals that were analyzed have primarily focused on disproportionality within the American education system.

### **Most Discussed Area of Disproportionality in Special Education and School Psychology Research**

There are three major areas of disproportionality in the field of education, including discipline, least restrictive environment, and special education identification. When analyzing the articles that were found to be related to disproportionality, 66% were related to special education identification (n=21); 28% were related to disproportionality of discipline (n=9); 3% were related to disproportionality of least restrictive environment (n=1); and 3% were related to disproportionality of 1 or more area (n=1). The one article regarding least restrictive environment discussed placement within the juvenile justice system, while the one article that focused on more than one area was an article that discussed both disproportionality of special education identification and discipline.

Based on the research collected in this area, it is apparent that disproportionality of special education identification appears to be a priority area within special education and school psychology research. Within the research relating to disproportionality in special education identification, one article was focused on students who are gifted. Although gifted is not included in IDEA, it was included as part of this study because it is relevant to what school psychologists do. Additionally, it should be noted that results show that there has been minimal research done in the area of least restrictive environment, indicating a need for future studies.

### **Number of Conceptual Articles in Comparison to Empirical Articles**

Based on the data analysis, it appears that the majority of research published relating to disproportionality within school psychology and special education literature is empirical in nature (n=23). Empirical studies were defined as those studies which involved data collection and analysis and were published including findings of their results. This suggests that disproportionality studies are more likely to include original data collection and analysis than discussion of issues without original data production. It should be noted that of the empirical methods examined, none of them addressed best practice ways to mathematically define Significant Disproportionality, a topic that has been at the forefront of the national discussion to provide a uniform definition of Significant Disproportionality.

### **Most Widely Studied Groups in Disproportionality Research in School Psychology and Special Education Journals**

There are four major groups studied within disproportionality research, including race/ethnicity, English language learners, socioeconomic status, and gender. Some research includes more than one of these groups, as well. Not all articles focused on a specific group;



however, it appears that the most widely discussed group was race/ethnicity (n=12).

Socioeconomic status and gender were the least discussed groups, with one article focusing on each topic. Based on the literature reviewed for this study, it appears that race/ethnicity is a priority area for researchers because racial and ethnic minority students have been found to be disproportionality identified, placed, and disciplined within the education setting. It should be noted that of the 32 relevant articles, four were related to bullying and disproportionality. The investigator decided to include these articles because there is a strong connection with bullying and disproportionality.

### **Possible Disproportionality Solutions**

Some of the articles that were published related to disproportionality also addressed possible solutions to disproportionality (n=8). Of those eight articles, two were school psychology articles and six were special education articles. Possible solutions to addressing disproportionality include: the use of School Wide Positive Behavior Interventions and Supports (SWPBIS), Response to Intervention (RtI), coaching teachers to support culturally response classroom management strategies, and providing students with disabilities direct instruction in social and communication skills. Because disproportionality continues to be problematic within our schools, it is important for researchers to develop solutions to addressing this problem. Many of the solutions that were discussed include universal supports or early intervening services, which is beneficial because it provides empirical data to support solutions for addressing disproportionality for districts to review. Because districts are required to use the maximum amount allowable for Coordinated Early Intervening Services (i.e., 15% of IDEA funds) if they are identified as having Significant Disproportionality (“Significant Disproportionality,” 2013), it is critical that scholarly outlets provide evidence that such

interventions yield positive outcomes by obviating high suspension, identification, and placement rates in more restrictive settings for youth with disabilities by race and ethnicity.

## **CHAPTER V**

### **CONCLUSION**

Bibliographic analyses are useful in tracking the amount of research that has been published within literature regarding specific topics. Because disproportionality continues to be an issue plaguing education, it is important to determine the amount of research that has been discussed within educational literature, particularly in the fields of special education and school psychology. There are several potential limitations to the current study. One potential limitation of this study is that it is not possible to examine all journals related to the fields of school psychology and special education. To determine the frequency that disproportionality is discussed within literature in each field, it would be necessary to examine each journal relevant to each respective field. Additionally, journals are not the only ways to communicate strategies, solutions, and methods of calculation within a topic. For example, OSEP communications, national technical assistance centers, and national associations are other examples of outlets that publish disproportionality findings that could be researched.

Another potential limitation is that the investigator only marked the range of years for each journal from 2010-2017. Therefore, literature prior to 2010 and after 2017 was not analyzed. Additionally, this study looked specifically at the breadth and depth of the literature focused on disproportionality. Because this was a bibliographic citation analysis, it analyzed bodies of literature directly focused on disproportionality. Finally, because only abstracts were searched through, some articles may have discussed topics related to disproportionality without including disproportionality keywords within the abstract.

Considering that disproportionality in education has historically been, and continues to be, problematic, additional research in this area is necessary. Some avenues for future research

include broadening the years that each journal is examined. Thus, future researchers could expand the marking range for each journal (i.e. from 2000-current) to include more literature in the study. Another potential avenue for future research would be including more journals from each field (i.e. including eight school psychology and eight special education journals). Additionally, another area of future research could involve doing a keyword search within the full text of an article, rather than searching only keywords of the abstract. Because Significant Disproportionality was virtually absent from the literature, future research should include more thorough discussion of this topic. Similarly, because least restrictive environment was discussed minimally, future research should also provide emphasis on this area, as well.

Such analyses, like the present one, can provide important information regarding research that has been done regarding disproportionality within the fields of school psychology and special education literature. The findings of this study indicate that there has been minimal literature published in both fields and indicates a need for additional research within this area, particularly in the area of least restrictive environment and Significant Disproportionality.

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## APPENDIX A: OFFICE OF RESEARCH INTEGRITY APPROVAL LETTER



Office of Research Integrity

August 7, 2018

Stacy Fooce  
100 Angus E. Peyton Drive, Room 108  
South Charleston, WV 25303

Dear Ms. Fooce:

This letter is in response to the submitted thesis abstract entitled "*Underrepresenting Disproportionality: An Interdisciplinary Bibliographic Content Analysis.*" After assessing the abstract, it has been deemed not to be human subject research and therefore exempt from oversight of the Marshall University Institutional Review Board (IRB). The Code of Federal Regulations (45CFR46) has set forth the criteria utilized in making this determination. Since the information in this study does not involve human subjects as defined in the above referenced instruction, it is not considered human subject research. If there are any changes to the abstract you provided then you would need to resubmit that information to the Office of Research Integrity for review and a determination.

I appreciate your willingness to submit the abstract for determination. Please feel free to contact the Office of Research Integrity if you have any questions regarding future protocols that may require IRB review.

Sincerely,

A handwritten signature in blue ink that reads 'Bruce F. Day'.

Bruce F. Day, ThD, CIP  
Director

**APPENDIX B: ARTICLES PUBLISHED WITHIN SCHOOL PSYCHOLOGY AND SPECIAL EDUCATION JOURNALS RELATING TO DISPROPORTIONALITY FROM 2010-2017 AND ARTICLE NAME**

<b>Journal</b>	<b>Article Name</b>
<i>Psychology in the Schools</i>	Addressing inequity in special education: An integrated framework for culturally responsive social emotional practice.
<i>Psychology in the Schools</i>	Serving the gifted: A national survey of school psychologists.
<i>Psychology in the Schools</i>	Special considerations with response to intervention and instruction for students with diverse backgrounds.
<i>Psychology in the Schools</i>	The Bullying Dynamic: Prevalence of Involvement Among A Large-Scale Sample Of Middle And High School Youth With And Without Disabilities.
<i>Psychology in the Schools</i>	Understanding Disproportionate Representation in Special Education by Examining Group Differences in Behavior Ratings.
<i>School Psychology Quarterly</i>	The relative contribution of subjective office referrals to racial disproportionality in school discipline.
<i>School Psychology Review</i>	Beyond Behavior: Multilevel Analysis of the Influence of Sociodemographics and School Characteristics on Students' Risk of Suspension.
<i>School Psychology Review</i>	Bullying and Students with Disabilities: Examination of Disability Status and Educational Placement.
<i>School Psychology Review</i>	Closing the Racial Discipline Gap in Classrooms by Changing Teacher Practice.
<i>School Psychology Review</i>	Race Is Not Neutral: A National Investigation of African American and Latino Disproportionality in School Discipline.
<i>School Psychology Review</i>	School-Based Autism Identification: Prevalence, Racial Disparities, and Systemic Correlates.
<i>Exceptional Children</i>	Justifying and Explaining Disproportionality, 1968-2008: A Critique of Underlying Views of Culture.
<i>Exceptional Children</i>	Disproportionality in Special Education Identification and Placement of English Language Learners.
<i>Exceptional Children</i>	Are Black Children Disproportionately Overrepresented in Special Education? A Best-Evidence Synthesis.

<i>Exceptional Children</i>	Culturally Different Students in Special Education: Looking Backward to Move Forward.
<i>Exceptional Children</i>	Disproportionality in Special Education: Effects of Individual and School Variables on Disability Risk.
<i>Exceptional Children</i>	Exploring the Involvement of Bullying Among Students with Disabilities Over Time.
<i>Exceptional Children</i>	The Minority Report: Disproportionate Representation in Australia's Largest Education System.
<i>Exceptional Children</i>	Using an Ever-English Learner Framework to Examine Disproportionality in Special Education.
<i>Journal of Learning Disabilities</i>	Disproportionality and Learning Disabilities: Parsing Apart Race, Socioeconomic Status, and Language.
<i>Journal of Positive Behavior Interventions</i>	Addressing Disproportionate Discipline Practices Within a School-Wide Positive Behavioral Interventions and Supports Framework: A Practical Guide for Calculating and Using Disproportionality Rates.
<i>Remedial and Special Education</i>	A Situated Analysis of Special Education Disproportionality for Systemic Transformation in an Urban School District.
<i>Remedial and Special Education</i>	Critical Practice Analysis of Special Education Policy: An RTI Example.
<i>Remedial and Special Education</i>	Disabling Juvenile Justice: Engaging the Stories of Incarcerated Young Women of Color with Disabilities.
<i>Remedial and Special Education</i>	English Learners with Disabilities in High School.
<i>Remedial and Special Education</i>	Gender Discrepancies and Victimization of Students with Disabilities.
<i>Remedial and Special Education</i>	Parsing the Relations of Race and Socioeconomic Status in Special Education Disproportionality.
<i>Remedial and Special Education</i>	Systemic Transformation from the Ground-Up: Using Learning Lab to Design Culturally Responsive Schoolwide Positive Behavioral Supports.
<i>Education and Treatment of Children</i>	Discipline Referrals and Access to Secondary Level Support in Elementary and Middle Schools: Patterns Across African-American, Hispanic-American, and White Students.
<i>Education and Treatment of Children</i>	Disproportionate Poverty, Conservatism, and the Disproportionate Identification of Minority Students with Emotional and Behavioral Disorders.
<i>Education and Treatment of Children</i>	Exclusionary Discipline Practices Across Students' Racial/Ethnic Backgrounds and Disability Status: Findings from the Pacific Northwest.

*Education and Treatment of  
Children*

Implementation and Acceptability of an Adapted Classroom Check-Up  
Coaching Model to Promote Culturally Responsive Classroom  
Management.