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Abstract

This study examined the relationship between student characteristics and paraeducator assignment. A Disability Critical Race framework was chosen to investigate whether current models of special education service delivery, which rely heavily on paraeducator supports, may be further marginalizing Students of Color with disabilities. A secondary dataset from one school district of 322 students serviced under the Individuals with Disabilities Education Act (IDEA) in grades PK-12 was analyzed. This quantitative study utilized multivariate logistic regression with a focus on student characteristics as a predictor variable for paraeducator assignment. My first research question investigated whether individual student characteristics (i.e., race/ethnicity, disability category, gender, school level) were predictive of paraeducator assignment. Findings of the multivariate logistic regression yielded some significant findings. Students at the elementary school level and students with a low incidence disability were found to be more likely to be assigned full-time paraeducator support. My second research question focused on determining the risk of paraeducator assignment based on student race/ethnicity. Findings of the risk ratio analysis suggested African American and Asian American students had an elevated risk of full-time paraeducator assignment, and Asian American students and students of two of more races had an elevated risk of part-time paraeducator assignment when compared to all other students included in the sample. The small study size somewhat hindered the analysis, rendering only limited interpretations from the data. Replication of this research design with larger sample sizes across various school districts and states is recommended to further evaluate reported findings. Implications for students, schools, and policy makers are provided with corresponding recommendations.

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The Para Predicament:

Investigating the Intersectionality of Race, Disability, and Paraeducator Assignment

Paraeducators are considered essential school support staff for the inclusion of students with disabilities in general education classroom settings (Downing, Ryndak, & Clark, 2000; Giangreco, Broer, & Edelman, 2002; Villa, Thousand, & Nevin, 2008). Thus, the role of the paraeducator has increasingly focused on the provision of instruction to students with special needs (Giangreco, Smith, & Pinckney, 2006). However, paraeducators are the most under-qualified and under-trained direct service providers for students with disabilities (Breton, 2010; Carter et al., 2016; Downing, Ryndak, & Clark, 2000; French, 2001; Giangreco & Broer, 2005; 2007; Giangreco, Suter, & Doyle, 2010; Suter & Giangreco, 2009) creating some real questions regarding the appropriateness, ethics, and legalities of utilizing them in this way.

Indeed, despite their prevalence in schools, there is a notable dearth of research regarding whether providing paraeducator support (Farrell et al., 2010; Giangreco, Broer, & Edelman, 2001; Giangreco, Suter, & Doyle, 2010). Of the evidence that does exist, it tends to suggest paraeducator support may actually lead to negative student achievement outcomes (Blatchford et al., 2009; Wagner & Blackorby, 2007; Webster et al., 2010) as well as declines in social interaction with peers and teachers (Causton-Theoharis & Malmgren, 2005a; 2005b; Giangreco, 2010; Malmgren & Causton-Theoharis, 2006). Moreover, excessive paraeducator support is also associated with inadvertent detrimental effects for students including low self-esteem (Al Zyoudi Krull, 2010), an increase in behavioral problems (Giangreco & Broer, 2005), unnecessary dependence, interference with teacher involvement, and less competent instruction (Campbell-Whatley, 2008; Causton-Theoharis, 2009; Giangreco, 2003; Giangreco et al., 2005; Giangreco et al., 2007; Giangreco et al., 2010b; Giangreco & Hoza,

2013; LaBarbera, 2008; Suter & Giangreco, 2009). Students assigned to paraeducators may experience feelings of disenfranchisement, loss of personal control, embarrassment, loneliness, rejection, fear, isolation, and stigmatization (Broer, Doyle, & Giangreco, 2005; Giangreco et al., 2005; Giangreco, Broer, & Edelman, 2002).

These realities regarding the negative impact of paraeducators is further complicated by the fact that traditionally underserved[1] groups of students are overrepresented[2] in special education, especially with regard to race (Artiles et al., 2010; Harry & Klingner, 2006; Office of Special Education Programs, 2011; 2015; 2016; Parish, 2002; Zhang, 2014). While we might presume, because more Students of Color are identified for special education services, they would also be more likely to be assigned a paraeducator, it is unclear from the research which student characteristics are more or less likely to result in paraeducator assignment (Giangreco, 2010a). There is a lack of national data regarding the demographic characteristics (e.g., gender, race, socioeconomic status) and learning characteristics of students receiving paraeducator supports in American schools (Giangreco, 2010a). Therefore, although the research provides some evidence certain demographics of students serviced under certain disability categories may be more likely to be assigned a paraeducator (Suter & Giangreco, 2009), and the impact of these paraeducators may be negative on student outcomes, the true relationship between student race and paraeducator assignment is largely absent from the literature and warrants further

student characteristics (i.e., race/ethnicity, disability category, gender, school level)? and; 2) Does student race/ethnicity influence the risk of paraeducator assignment?

In the current study, I find both Asian American students and students of two or more races have an elevated risk of part-time paraeducator assignment when compared to all other students included in the sample. African American students and Asian American students were also found to have an elevated risk of full-time paraeducator assignment. These findings are important because the utilization of paraeducators as direct service providers for students receiving special education services may be inadvertently perpetuating the marginalization of some of our most vulnerable student populations (Giangreco & Broer, 2005), raising serious concerns about equity in service delivery across different student subgroups, especially those students belonging to one or more marginalized populations (Breton, 2010; Butt, 2016; Giangreco, 2003; Giangreco et al., 2005; Giangreco, Suter, & Doyle, 2010). This model of service delivery is

1000), as it ultimately challenges student access to equitable educational opportunities (Giangreco, 2010a).

Literature Review

My capstone research draws on the following sets of literature: a) the rise of paraeducators in schools, b) credentialing, certification, and training standards for paraeducators, c) effectiveness of paraeducator supports, and d) critical approach as discussed through a Disability Critical Race lens. I accessed multiple databases to find scholarly research relating to this study, including ERIC, Academic Search Premier, and PsycINFO. The vast majority of the literature was accessed from peer-reviewed journals, reports from private organizations, published dissertations, and textbooks.

Paraeducators in Schools

According to the National Center for Education Statistics, the use of full-time paraeducators in classrooms has increased substantially every decade for nearly forty years: 2.5 percent in 1970, 11.9% in 1980, 16.5% in 2000, and 17.2% in 2009 (U.S. Department of Education, 2011). The National Education Association (NEA) estimated in 2015 in the United States, there were approximately 758,000 paraeducators working with students in schools (NEA, 2015). As the trend in education legislation has been to increasingly include students with disabilities in general education settings, the number of paraeducators supporting students with disabilities has also risen (Alquarini & Gut, 2012; National Center for Education Statistics, 2015; Riggs, 2004).

Paraeducators are often considered the primary support system for students with disabilities (Fisher & Pleasants, 2012) and members of the special education instructional team (Giangreco, Suter, & Doyle, 2010). According to the University Center for Excellence in Developmental Disabilities (UCEDD), 85% of paraeducators supported students with disabilities in the state of Connecticut in 2014. This trend is consistent with national statistics, which estimate 71% of paraeducators support students with disabilities across the United States (National Education Association, 2016).

National data indicates special education placements are predominantly staffed by paraeducators, as special education paraeducators have outnumbered special education teachers in schools since 2010 (U.S. Department of Education, 2010; 2012). The state of Connecticut was one of six states where teachers made up less than half of the total school staff in 2014, yet due

-to-pupil ratio was simultaneously also one of the highest in the country (National Center for Education Statistics, 2017).

Much like other states across the country, Connecticut paraeducators are not highly compensated for their work with students (Bureau of Labor Statistics, 2013; Giangreco & Broer, 2003; Suter & Giangreco, 2009). According to the Bureau of Labor Statistics (BLS), paraeducators in Connecticut receive a median hourly wage of about twenty dollars and earn $29,230 yearly, which is less than half of the average spec

viewed in many states as a way to provide cost-effective instruction and support services to students, with the added benefit of bolstering federally mandated student inclusion rates (Giangreco, Suter, & Doyle, 2010).

Paraeducators and Education Policy: A Brief History. Paraeducators are undoubtedly recognized within federal legislation as vital members of school instructional teams providing essential supports to students across the general and special education classroom settings (IDEA, 1997, NCLB, 2001, ESEA, 2015). The reauthorization of the Individuals with Disabilities Education Act (IDEA) of 1997 required students with disabilities to have access to the general education curriculum and instruction, increasing the use of paraeducators supporting students in general education classrooms. Prior to the 1997 amendments, there was no recognition of paraeducators in any federal legislation and paraeducators were not legally recognized as personnel who may assist in the provision of special education and related services to students with disabilities (IDEA, 1997).

The No Child Left Behind Act (NCLB) of 2001, in part, endeavored to ensure that students received instruction from paraeducators who were supervised by highly qualified individuals. NCLB (2001) required that all state educational agencies ensured that paraeducators working in a program supported with funds under Title I meet applicable credentialing minimum

requirements. For those districts and schools taking these funds, NCLB mandated that Title I paraeducators must have a high school diploma or equivalent, and either completed two years of ree, or passed a formal academic assessment (NCLB, PL 107-110, § 1119 (c) (d)).

teacher.

All Title I paraprofessionals whose duties include instructional support must meet one of the following requirements by 2006 [Title I, section 1119(c) and (d)]:

1) Completed at least two years of post-secondary study at higher education;
2)

Paraeducator Credentialing. It is important recognize the ways federal education legislation has influenced credentialing standards for paraeducators in schools. As previously indicated, there is an overall lack federal guidance regarding certification and credentialing

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Paraeducator Training and Supervision. As the responsibilities of paraeducators continue to shift from duties that were considered primarily clerical to ones which instructionally and behaviorally support students with disabilities, identifying the most effective ways to provide training to pa

Although many contend professional development opportunities and training programs are available for paraeducators, paid time off from regular duties remains a barrier (CSDE, 2014).

As most paraeducators hold high school diplomas as their terminal degree and often have little, if any, formal teacher training, special education teaching staff are most often placed in supervisory roles to train paraeducators (Brock & Carter, 2015). However, the majority of special education teachers report they receive little, if any, preparation for the responsibilities associated with supervising paraeducators (Douglas, Chapin, & Nolan, 2016; French, 2001; Fisher & Pleasants, 2012;

In one study investigating paraeducators' perceptions of their roles and responsibilities in inclusive classrooms, paraeducators described a high level of responsibility for the education programs of students with moderate to severe disabilities, exemplified by a great deal of independent decision making. Further, in a similar study conducted by Giangreco and Broer (2005), nearly 70% of paraeducators interviewed reported making curricular and instructional decisions without always having oversight by a teacher or special educator (Downing, Ryndak, & Clark, 2000).

Inadequate training and supervision practices for paraeducators assisting students with disabilities in schools remains a wide-spread and multifaceted problem. A meta-analytic study of forty-seven legal cases pertaining to paraeducator responsibilities, preparation, training, and supervision practices, reported findings which suggested, contrary to the popular assumption that

largely operated independently and autonomously, isolated from direction and supervision (Etscheidt, 2005). These are problematic findings, considering federal law mandates paraeducators are supervised by qualified teachers and must work in close and frequent proximity with classroom teachers (ESEA, 2015;
findings emphasize that although paraeducators by law may not serve as the sole designer,
, self-reported case data suggest otherwise.

The inadequacy of credentialing, training, and supervision practices for paraeducators

appropriate training and supervision to guide their instruction, the outcomes for students tend to be more negative than positive (DaFonte & Capizzi, 2015).

Two major longitudinal studies completed in the U.S (2000-2005) and the U.K. (2003-2008) found students receiving paraprofessional support tended to perform lower academically than students with similar disabilities who did not receive such support (Blatchford et al., 2009; Wagner & Blackorby, 2007). Findings from the Blatchford et al. (2009) study suggested the more paraeducators support a student received, the less support they received from the classroom teacher. At both the

outcome on a combined total of only twenty-six students with disabilities. Even without adequate outcome data regarding paraeducator efficacy, the number of paraeducators supporting students with disabilities in schools continues to grow (Giangreco, Suter, & Doyle, 2010).

Inclusive Practice and Paraeducators. Between 1989 and 2013, the percentage of students with disabilities in inclusive settings for 80% or more of the school day increased from about 32% to nearly 62% (National Center for Education Statistics, 2015). A central aim of inclusive practice is to provide effective instruction that improves student outcomes for all students regardless of disability (Mcleskey & Waldron, 2011). While inclusion is undoubtedly linked with the principles of equity and social justice, the ways schools actually implement inclusive practices may perpetuate systems of oppression (Lloyd, 2008; Wedell, 2008). An example of this is the overreliance upon a service delivery model highly dependent on minimally trained paraeducators for the inclusion of students with disabilities in general education settings (Giangreco & Broer, 2003; Mueller, 2002). Without proper training, academic, behavioral, and social success of their students may be compromised, ultimately hindering the goals of inclusion (Sobeck, 2016).

How inclusion should be applied in practice to ensure equity is a topic of c81up8(P 223.61 512.47 Tm0 g

supporting reported positive academic outcomes for students with disabilities in inclusive

and social factors which reinforce barriers to equitable education (Bass & Gerstl-Pepin, 2011; Lloyd, 2008; Wedell, 2008).

Arguably, the largest socioeconomic barrier to equity in education are state and local school funding policies for districts affecting low-income students and Students of Color (U.S. Department of Education, 2015). According to the U.S. Department of Education (2015), in 2015, twenty-three states across the nation with districts serving the highest percentage of students from low-income families spent less money per pupil than districts with fewer students in poverty (U.S. Department of Education, 2015). Further, twenty states spent less state and local dollars on districts with a high percentage of

and messages from society become internalized and shape understanding of race (Wilson, Foster, Anderson, & Mance, 2009). Teacher perceptions and biases are linked to negative achievement and disciplinary outcomes for Students of Color (Skiba et al., 2002; Hua-Yu, 2017).

It is well-documented within the literature that teacher bias negatively affects student discipline procedures (Skiba et al., 2002; U.S. Commission on Civil Rights, 2017). African American students receive more teacher referrals for disciplinary action (Gregory, NyGreen, & Moran, 2006; Skiba, Michael, Nardo, & Peterson, 2002), receive harsher punishments and restrictions for behavior (Butler, Joubert, & Lewis, 2009), and are more likely to be suspended and expelled than White students (U.S. Commission on Civil Rights, 2017). Students of Color with disabilities are at the highest risk for out-of-school suspensions and face higher rates of exclusionary discipline practices overall compared to all other student groups (U.S. Department of Education, 2016).

Perspectives which focus on individual student deficits rather than educational practices affecting educational equity fail to address larger, more complex systems of oppression (Goodley, 2007) and underlying sociocultural and political contexts (Liasidou, 2012). Deconstructing said pedagogies and systems which perpetuate inequalities and oppression is critical in the movement away from deficit-oriented approaches and towards addressing wider social and educational disadvantages of marginalized groups of students (Liasidou, 2012). Challenging the individual pathology model also shifts the responsibility of academic achievement from students to policy-makers and states to address and remedy the larger systems and institutions impacting student achievement (Bass & Gerstl-Pepin, 2011).

Proponents of fostering more socially equitable models of education delivery call for education policy and practice reform with schools as mediating institutions in addressing the

wider societal and educational inequalities facing disadvantaged populations (Bringhouse, 2010). Equitable education is described by the Organization of Economic Cooperation and Development (OECD) as systems which are

reach their learning potential without either formally or informally pre-setting barriers or

requires an awareness of the ways educational systems perpetuate social inequalities; thus critical forms of thinking leading to transformational change at the ideological and institutional levels is imperative for the success of future reform efforts (Liasidou, 2012). Liasidou (2012) highlights the importance of understanding the educational structures and institutions which create and further inequality:

> Understanding the intersections of systems of oppression and challenging the multiplicity of factors that disable certain groups of students entail critiquing dominant ideologies, educational policies and institutional arrangements that maintain and perpetuate social and educational injustice (p.170).

Critical analysis into the larger and more complex issues of race and disability is explored

Overrepresentation in Special Education. Racial disparities within special education

2015; 2016; Parish, 2002; Zhang, 2014) remain what many scholars identify as one of the key indicators of inequity in education (Skiba et al., 2008). Students belonging to certain racial/ethnic groups are not only overrepresented in special education populations, but are also overrepresented within specific disability categories (OSEA 2015; 2016). Students associated

delay and

emotional disturbance than all other racial/ethnic groups combined (OSEA, 2015; 2016). African American students are more likely to be served under IDEA within every disability category

emotional disturbance or intellectual disability label then students in all other racial/ethnic groups combined (OSEA, 2015; 2016).

African American students continue to be overrepresented within high-incidence and low-incidence disability categories including intellectual, learning, and emotional disturbance

(Skiba et al., 2008); however, the research is inconclusive and does not adequately address causal factors (Hosp & Reschly, 2004; Skiba et al., 2008; Strassfeld, 2017).

A study conducted by Craft and Howley (2018) investigated the negative consequences associated with the disproportionate placement of African Americans in special education and found the consequences of such placement far outweighed the positives. Negative consequences for African American students included the experience of being stigmatized by peers, making limited academic progress because of a slow-paced curriculum, and facing barriers that kept them from returning to general education placements (Craft & Howley, 2018).

Education policy addressing the overrepresentation of Students of Color in special education has attempted to regulate and remedy the policies, practices, and procedures for the identification and placement of students suspected of having a disability. The issue of disproportionality was federally recognized within education law in 2016, when the U.S. Department of Education issued regulations to guide states regarding special education practices. The new regulations under IDEA required states take steps to determine the presence of significant disproportionality, and, if present, to address and to remedy disproportionate placement (34 C.F.R. §§ 300 99).

The regulations also established that states must determine whether significant

regulations should be addressed in federal legislation, although penalties do little to remedy the complex underlying issues which contribute to issues of racial disproportionality. Higher exposure to poverty as well as risk factors associated with poverty (e.g. access to health care, nutrition, parental employment, housing conditions, housing instability), inequitable school

disadvantage, stigmatization, and exclusion from society (Gillman, Heyman, & Swain, 2000; Keil et al., 2006).

Indeed, identification with multiple oppressed groups stigmatizes students in complex ways (Mayes & Moore, 2016). Research on the intersectionality of race and disability shows African American students who experience disability and racial stigmatization may display problem behaviors, develop poor self-esteem and poor self-efficacy skills, and are at greater risk for underachievement, and school failure (Ford et al., 2008; Fowler, 2011; Milner & Ford, 2005; Moore et al., 2005; Robinson et al., 2014; Waitoller et al., 2010). As negative stereotypes and messages surrounding race conflate with the stigmas associated with having a disability for Students of Color, they are more likely to dissociate and withdraw from the educational environment, impacting later quality of life (Robinson et al., 2014).

The lasting implications of identification with multiple oppressed groups include higher rates of dropout, arrests, juvenile incarceration, lower status employment and wages, and lower rates of independent living (Losen et al., 2015; Losen & Wellner, 2001). As previously mentioned, African American students are also more likely to receive their instruction in more restrictive special education placements (Skiba et al., 2008; U.S. Department of Education, 2016a). Restrictive school settings are

Disability Critical Race Theory

With the aim of answering questions about the pedagogies, practices, and systems perpetuating educational disadvantages for marginalized groups of students, I draw upon Disability Critical Race Theory (Annamma, Connor, & Ferri, 2012), or *DisCrit*. DisCrit emerges from the larger theoretical framework embedded in Critical Race Theory (CRT), which, among other things, views policy as a process shaped by the interests of the dominant White culture (Gillborn, 2014).

DisCrit theorizes about the ways socially constructed categories of race and ability are situated within the dominant White culture and are embedded into larger educational policies, interactions, procedures, activities, institutions, structures, and discourses (Crenshaw, 1993; Solorzano & Yosso, 2001). DisCrit further recognizes the material and psychological impacts of being labeled as raced or disabled (Annamma, Connor, & Ferri, 2012). Social constructions of race and disability are conceptualized as interdependent and existing within complex layers of stigma and social injustice (Annamma, Connor, & Ferri, 2012). DisCrit pushes back on the dominant cultural view that deviations from White, able-bodied norms are viewed as socially subordinate identities (Annamma, Connor, & Ferri, 2012; Ferri & Connor, 2010).

Historically, individuals with disabilities are viewed as subordinate identities, facing widespread discrimination, stigmatization, oppressive marginalization, and exclusion from society (Winter, 2003). Disableism refers to a set of assumptions and practices promoting the differential or unequal treatment of people based upon actual or perceived disabilities (Campbell, 2008). Similarly to racism, disableism examines the attitudes and barriers that contribute to the subordination and discrimination of a targeted group of people. Instead of focusing on disableism

as a construct, refocusing the discourse on ableism allows us to deconstruct the subjective nature of disability. Ableism is defined by Campbell (2001) as:

> body (the corporeal standard) that is projected as the perfect, species-typical and therefore essential and fully human (p.44).

The cultural devaluing of individuals based on real or perceived attributes undergirds this emerging counter-

some subjective standard maintains their power and privilege within a society. By focusing on ableism and moving the lens away from disableism, we can begin to critically dissect the illusion

- gibility criteria for special

education as well as the misinterpretation of culturally-

-quality educational opportunities (Broderick & Leonardo, 2015); therefore, recognizing Whiteness and Ability as Property and that advancements for people labeled with disabilities are largely made as the result of interest convergence[4] of the dominant White culture (Annamma, Connor, & Ferri, 2012).

However purposeful or inadvertent, the legal, ideological, historical, social, economic, and political aspects of race in this country have contributed to Students of Color

severe, low-incidence disabilities including autism, health impaired, emotional disturbance, intellectual disability, multiple disabilities, and developmental delay, respectively. Fisher and Pleasants (2012) powerfully s

students with the most complex learning characteristics and in some cases with little oversight or

The current model of special education service delivery, which is heavily dependent upon paraeducators, may lead to low expectations and double standards for students with disabilities (Giangreco, 2003; 2010a; 2010b). As such, if a student is not disabled, they receive their instruction from a qualified teacher with the required credentials. Conversely, if a student has a disability, especially if it is considered significant and pervasive, they may likely receive the majority of their instruction from a paraeducator of minimal qualification (Giangreco, 2003; Giangreco, Suter, & Doyle, 2010; Giangreco, Suter, & Hurley, 2011; Suter & Giangreco, 2009).

Paraeducator support often excludes students from the general education milieu, which may further isolate and stigmatize students with disabilities. In his Special Education Funding and Service Delivery (2015) testimony to the Education Committee of the Vermont Senate, Dr.

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> Even in schools and classrooms where students are counted as being placed in general education classrooms 80% of the day or more (the highest federal reporting category), we have students who experience what is termed "micro-exclusion"; they are physically in the classroom but spend a substantial amount of time separated within the classroom, such as at the back of the classroom doing separate work with a paraprofessional rather than being fully part of the life of the classroom (p.1).

educational equity how paraeducator assignment as a method of special education service delivery intersects with race and disability for trice marginalized students (Figure 1). In fact,

there are a lack of research studies examining the intersectionality of student race, disability, and paraeducator assignment (Giangreco, 2010a). DisCrit theory provides a unique conceptual framework to investigate disparities in paraeducator assignment and ra investie4 Tmt-2(he)4(or)-6(y)20(prov)3(

perception of stigmatization was most salient for race. Although each participant explicitly expressed feeling stigmatized as a student with a disability and as a student working with a paraeducator, their responses around race illustrated that this area in particular was most prominent to their experience of stigmatization in school. One student experienced the following:

> *If a bunch of white people are hanging out and one Indian girl is hanging out, I donôt know, maybe thatôs why they donôt want to hang out. Thereôs like one brown girl and all these White girls and that would make it look weird.*

Students also reported that paraeducator support most negati

reflected on how the convergence of these stigmas together made her feel different from other students in school*:*

> *So it makes it harder for me to make friends because people see that is different and they find it hard to accept differences. Sometimes people arenôt accepted for their differences hereð like if you are different you are not as good as other people.*

This pilot study investigating the student voice provided critical insights into how paraeducator assignment, disability, and race interacted and influenced the of stigma and provided a foundation for the current study. What the pilot did not address, however, was whether study participants were more likely to be assigned a paraeducator due to other factors associated with overrepresentation in special education such as race/ethnicity.

There is an extraordinary degree of complexity inherent within the myriad systems, institutions, and socio-cultural conditions affecting educational equity. Traditionally, research within the social sciences focused on qualitative and mixed methodological data approaches due, in part, to the complexities embedded within social realities. Especially for researchers utilizing frameworks grounded in Critical Race Theory (CRT) to guide their research methodology, the oral narrative and authentic experience of traditionally marginalized populations have primarily focused on qualitative data collection and analysis methods (Crenshaw, 1988).

In fact, the nefarious origin of quantitative statistics in biologically-based racial studies is rooted within the eugenics movement5 (Zuberi, 2001). Statistical models based upon the principals of eugenics were used for the purpose of classifying African Americans as innately and biologically inferior to Whites (Zuberi, 2001). As prominent social scientists bregthereW* n.024 184.34 Tm0

More recently, social scientists have pushed back on these methodological ideologies, calling for the use of rigorous quantitative data approaches for racial liberation and advancement of social justice for oppressed groups (Gillborn, 2010; Zuberi, 2001). The blending of quantitative methodologies and CRT principals underlies the theoretical framework known as QuantCrit (Gillborn, 2010). The tenets of QuantCrit

analyses should be informed by the experiential knowledge of marginalized groups (Gillborn, 2010). In addition, QuantCrit holds that statistical analyses have no inherent value on their own, but can play a role in advancing social justice (Gillborn, 2010).

As such, this study was informed by the previous pilot study, which drew upon the experiential knowledge of Students of Color with disabilities assigned paraeducator supports. The current study builds upon findings from the pilot, and utilizes a quantitative approach based upon the foundational principals of CRT, DisCrit, and QuantCrit.

Multivariate logistic regression analysreW*0fmo[(ult)-3(ivar)5(iate)4(log)8(ist)-4(ic r)5(e)-5(gr)-6(e)4(s

Thus, quantitative methodologies are utilized within this study to investigate whether current models of special education service delivery, which rely heavily on paraeducator supports, may be further marginalizing students with disabilities. Such service delivery models may be educationally inadequate to meet the needs of our most vulnerable student populations.

Based on a review of the current literature on paraeducator assignment and race and disability status, there are few published studies investigating the relationship between paraeducator assignment and student race. This is highly problematic as education policy cannot adequately attempt to address disparities with regard to student race and paraeducator assignment if no such data regarding this potential relationship exists.

predictor variables included within the model: student race/ethnicity, grade level, gender, and disability category. Logistic regression analysis produces an odds ratio, or an estimated likelihood of a student being assigned a paraeducator based on the individual student characteristics.

Odds ratios are defined as the odds an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure. For example, an odds ratio will provide a comparison of the odds of a particular racial/ethnic group receiving a treatment or experiencing a particular outcome to the odds of the remaining racial/ethnic group receiving the same treatment or experiencing the same outcome. If a particular racial/ethnic students from that group are twice as likely to receive a certain treatment relative to other students; while an odds ratio of 1.0 means that students from that racial/ethnic group are equally likely to receive a certain treatment as other students. If a racial/et

as likely to receive a certain treatment as other students. In this study, the treatment received is paraeducator assignment.

Predictor variables including student race/ethnicity, disability category, gender, and grade level were chosen after careful review of the scholarly literature, as suggested by Field (2005): . 159). Based upon the scholarly literature on the overrepresentation of Students of Color in special education (Artiles et al., 2010; Harry & Klingner, 2006; Office of Special Education Programs, 2011; 2015; 2016; Parish, 2002; Zhang, 2014), it is hypothesized that the strongest predictor of paraeducator assignment in the current study will be student race/ethnicity.

Research Q2: To answer my second research question, Does student race/ethnicity

I further drew upon this data set to calculate a relative risk ratio, or a number describing the

procedures with operationalized constructs in other words, the study measures what it purports to measure.

Reliability describes the consistency, dependability and replicability (Nunan, 1999). This study describes data which is easily quantifiable and analytic procedures which can be reproduced and independently verified by other researchers, which strengthens the consistency in the collection of data, as student data is maintained for state mandated reporting purposes by the district and reflects accurate student data.

Results

Means and standard deviations for the student sample are provided in Table 2. The majority (81%) of the student sample was White, 12% was African American, and the remaining seven percent were American Indian/Alaskan Native, Ha

		2nd-38 3rd-46 4th-39	Black-4 Hispanic-11 White-172 Two or More Races-7	
Elementary School C Intermediate School	376	PK-46 K-61 1st-64 2nd-64 3rd-59 4th-82	American Indian/Alaskan-0 Asian/Pacific Islander-5 Black-5 Hispanic-13 White-348 Two or More Races-5	Male-191 Female-185

The multivariate logistic regression model with included predictors produced proportional odds ratios after controlling for all other variables in the model. These are reported with the corresponding two-tail p-value and the 95% confidence interval for each variable. Odds ratios were calculated to control for potential compounding

Male	1.25 (.4024)	.528 (.2084)	[-.405, .855]	[.244, 1.14]
Middle School	.212* (.124)	.999 (.5024)	[-2.70, -.403]	[.373, 2.68]
High School	.258** (.102)	1 (Omitted)	[-2.13, -.579]	
High Incidence Disability	.168*** (.052)	1.07 (.444)	[-2.39 , -1.17]	

Table 5

Risk ratios by student race/ethnicity (n=322)

Student Race/Ethnicity

> supports to follow trends in their use or to inform policymaking and practices at federal, state, and local levels (p.2).

assignment, which appears to be a trend in the state of Connecticut. State data indicates that students at the elementary school level are more likely to be assigned paraeducator support than students at the middle and high school levels (Connecticut State Department of Education, 2014).

Most surprising was that

These results should be interpreted with caution due to the small sample size of African American students (*n*=39), Asian American students (*n*=13), and students of two or more races (*n*=7). The risk ratio reported for African American students is suggestive they are more likely to be assigned a full-time paraeducator. However, further analysis of the data indicates this result may be driven by an unexpectedly large number of African American students with full-time paraeducator supports. Specifically, four African American female students at the elementary level were assigned full-time paraeducators and had high-incidence disabilities. This last finding pertaining to school level and disability category has not been supported within the literature and may be indicative of interactions between sample-specific variables within the current study.

Additionally, according to the National Association for Bilingual Education, Asian American students are actually less likely to be identified for special education services than other culturally and linguistically diverse populations (NABE, 2002). As such, the aforementioned findings pertaining to Asian American students and paraeducator assignment may not have relevant policy and practice implications and may largely represent the presence of confounding variables associated with the small sample size.

Although one should interpret results of the risk ratio analyses with caution due to the small sample size, findings may be indicative of larger trends pertaining to risk of paraeducator assignment for specific student subgroups. As previously stated, there is a lack of state (CSDE, 2016) and national data (Giangreco, 2010a) pertaining to student race/ethnicity and paraeducator assignment to confirm or deny a connection between these variables. In fact, I was unable to find any state or national data on student race/ethnicity and paraeducator assignment in my extensive review of the literature. It is important to consider how increased risk of paraeducator assignment

for specific student subgroups identified within the current study negatively affects access and quality of educational opportunities.

Limitations

The small sample size and the purposive sampling technique utilized create limitations regarding the interpretation of results and the generalizability of data. Student data pertains only to those students identified under IDEA receiving special education supports and services in a single school district, and is not reflective of other student populations across other academic years. Generalizations about the data cannot be made about other school districts or states

ons across school years cannot be made. As such, replication of this research design with larger sample sizes across various school districts and states is recommended to further evaluate reported findings. Results of such larger studies could help determine the broader impact of paraeducator service delivery models across a wide spectrum of student and program characteristics.

The absence of Lantinx students identified under IDEA from the student sample is a further limitation of this study. According to sample demographics, during the 2015-2016 school year there were twenty more Latinx students than African American students attending district schools, yet not one student was identified under IDEA. As Latinx students under the age of eighteen represent the largest minoritized student population in the nation (Morse, 2003), there has simultaneously been an increase in Latinx students identified under IDEA for special education services (Alliance for Excellent Education, 2006), especially within certain disability categories (OSEA, 2016). Nationally, Latinx students are more likely to be labeled as speech and language impaired than other students in all other racial/ethnic groups combined (OSEA, 2015; 2016). However, data derived from this study did not support any of these larger national trends.

One of th

the school district studied. During the data gathering process, I learned students within the district may be accessing self-contained and special education programs staffed by paraeducators for a variety of reasons. For example, students with disabilities returning back to district schools from psychiatric hospitalizations and therapeutic placements often access self-contained special education programs full-time until they are able to transition into the regular classroom setting.

(IEP), but may receive the bulk of their instruction from these support staff members as a result of such circumstances. As paraeducators within these programs are often considered classroom or program staff as opposed to being individually assigned to a particular student or group of students, actual service time is not consistently reported within an IEP. Further, students who are suspended from school or expelled may receive long-term direct instruction from a paraeducator outside of school until they are able to return. Students with disabilities who require home-bound instruction for a variety of reasons including mental and physical health issues may also receive long-term instruction from paraeducators in community settings arranged by the district. These special cases are difficult to track and are not consistently recorded or reflected within a

P.

As such, it can be difficult to determine which students are accessing instruction and how much instruction they are accessing from paraeducators staffed within these programs. Within the current study, I was not able to determine the duration and frequency of such supports for students accessing self-contained classrooms staffed by paraeducators. Without accurate reporting practices regarding student access to paraeducator supports in special education and

self-contained programs, it is unclear whether a more significant racial disproportionality in paraeducator assignment within the school district studied actually exists.

Last, a limitation of this study surrounds the drawbacks associated with using a secondary data source. This data was originally collected by the school district to comply with the statutory reporting mandates imposed on Connecticut state school districts. Among these mandates is the provision that school districts must provide the State Department of Education (SDE) with information on race, ethnicity, and disability category of children requiring special education (Office of Legislative Research, 2013). As such, data was originally collected for this purpose and not to answer my proposed research questions, which is a threat to the st

Additionally, the secondary data source utilized was deidentified; and although this

Malmgren & Causton-Theoharis, 2006). Further, as mentioned previously in the literature review, paraeducator support is associated with a host of negative student social-emotional outcomes including feelings of isolation and stigmatization (Al Zyoudi Krull, 2010; Broer, Doyle, & Giangreco, 2005; Campbell-Whatley, 2008; Causton-Theoharis, 2009; Giangreco, 2003; Giangreco et al., 2005; Giangreco et al., 2010b; Giangreco, Broer, & Edelman, 2002; Giangreco & Hoza, 2013; LaBarbera, 2008; Suter & Giangreco, 2009).

These detrimental outcomes may be further exacerbated for students who identify with multiple oppressed groups, stigmatizing them in even more complex ways (Mayes & Moore, 2016). The lasting implications of identification with multiple oppressed groups include higher rates of dropout, arrests, juvenile incarceration, lower status employment and wages, and lower rates of independent living (Losen et al., 2015; Losen & Wellner, 2001). As such, African American students with disabilities appear to be at a disproportionately higher risk for the aforementioned negative outcomes associated with paraeducator assignment within the sample studied.

Findings of this study indicate African American students are less likely to be assigned part-time paraeducator support when compared to White students, Asian American students, and students of two or more races. In fact, there were no African American students receiving part-time paraeducator support during the school year studied. The question as to why African American students are at a higher risk of full-time paraeducator assignment, the most restrictive support protocol, may be related to biases associated with this student population. Studies investigating teacher perception of Students of Color have found that White teachers perceive African American students as having less motivation (Diamond et al., 2004), fewer social skills (Wigfield et al., 1999), more behavioral problems (Skiba et al., 2002), and poorer academic

performance relative to White students (Anderson-Clark et al., 2008; Tenenbaum & Ruck, 2007;

and evaluation of existing service deli

Research indicates that the retention of special education teachers once they are hired is also problematic with annual attrition rates at 13%, or twice the rate of general education teachers (Plash & Piotrowski, 2006). Excessive paperwork, high caseloads, parental demands, poor working conditions, and a lack of administrative support have all contributed to the national shortage and retention issues (Otto & Arnold, 2005). Further, according to a study by Giangreco, Suter, and Hurley (2013), special education teachers cited high student caseloads and a large number of paraeducators to supervise as primary factors impacting the time they engaged instudent instruction.

As such, paraeducators are of -

relieve workload pressure from special education teachers, who are increasingly unable to provide high-quality instruction to students due to time constraints created by excessively high caseloa

underlying issues affecting special education service delivery for students with disabilities or their over-burdened special education teachers (Giangreco, Doyle, & Suter, 2012).

Additionally, school administrators wishing to gain a greater understanding of the factors influencing equity in special education service delivery may consider how racial attitudes and bias might influence paraeducator assignment practice. Tools such as the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998) assess unconscious racial bias and may be used by schools to examine racial attitudes, biases, and stereotypes which might influence paraeducator assignment practices. Such attitudes and stereotypes are intricately connected to subjective thoughts and feelings (Nosek, Greenwald & Benaji, 2007), which may influence how school teams make these decisions.

Implications for Policy: A Call to Action. Findings of this study suggest historically marginalized students may have an elevated risk of paraeducator assignment. These findings present policy implications regarding special education service delivery for minoritized students with disabilities. The need for uniformity across credentialing, training, and supervision standards for paraeducators especially those supporting marginalized student populations may support the implementation of more equitable special education service delivery models. As previously mentioned, there is a widespread lack of consistency across local, state, and national education agencies which have contributed to variability in best practice standards for virtually every aspect of paraeducator credentialing, training, and supervision procedures. Researchers suggest a variety of recommendations to inform best practice standards for paraeducators in schools. These scholars have offered evidence-based solutions to the myriad problems associated with paraeducators as special education service providers including targeted professional development (Causton-Theoharis, et al., 2007; Da Fonte & Capizzi, 2015; Lane et al., 2007; Leblanc, 2005; Liston, Nevin, & Malian, 2009; Keller, Bucholz, & Brady, 2007; Brock & Carter, 2013, 2015), supervisory performance feedback (DiGennaro, Martens, & Kleinmann, 2007; Yoon et al., 2007), alternative route teacher programs (Burbank, Bates, & Schrum, 2009; Sindelar et al., 2012), on-site learning communities (Hughes & Valle-Riestra, 2008), shifting support from special education to regular education activities (Giangreco, Smith, & Pinckney, 2006), school wide, paraprofessional improvement planning (Giangreco, Edelman, & Broer, 2003), peer-support models (Carter et al., 2016; Carter et al., 2007), supervision and consultation supports (Conley, Gould, & Levine, 2010), and exploring ways to fade one-to-one paraprofessional support over time (Broer & Gi4((Bro)r]4tens, & Klt4(r e)2.a7.0profef2.37 Tm8 R63wprofef2.3

investigate the efficacy of these practices, discretion is left up to individual school districts and states to determine which, if any, are implemented.

If we are to truly begin to understand the complex matrices and ontologies which undergird the current education system, a wider discourse on the ways in which institutionalized racism and disableism have both shaped the way we approach special education service delivery is crucial. This work contributes to the discourse on racism and disableism; the latter being a socially and culturally constructed concept which is arguably as deeply embedded within the fabric of our culture as racism. By refocusing the discourse on the problems inherent within these our reliance upon culturally-devised standards which individuals in this country are measured against, we can begin to examine how ideologies of ability and race permeate education. This discourse could ultimately lead to activism and action affecting social-justice-based education policy reform.

Perhaps the most impactful socioeconomic and political factor affecting educational equity for Students of Color with disabilities and requiring reform at the policy level are inherent within school funding policies (Roza & Hill, 2004). Significant disparities in state and local school funding policies for districts affecting low-income students and Students of Color have been identified across the nation (U.S. Department of Education, 2015). Although inaccurate, traditional viewpoints traditionally point to -pupil spending as a result of property-tax rates across school districts (U.S. Department of Education, 2012). However, about 40% of variation in per-pupil spending occurs within school districts and not at the federal or state level, indicating inequities in spending are also happening at the local school level (U.S. Department of Education, 2012). Loopholes in federal laws affecting reporting of funding practices by districts has been cited in the research as a major issue which has not been

adequately addressed within current legislation (Roza & Hill, 2004; U.S. Department of Education, 2012).

The two states in the nation with the highest funding discrepancies for Students of Color in 2012 were California and Texas (U.S. Department of Education, 2012; 2017). California schools serving 90% or more Students of Color spent $191 less per student than all other schools, and $4,380 less than schools serving 90% or more White students (U.S. Department of Education, 2012). In Texas, schools serving 90% or more Students of Color spent $514 less per student than at all other schools, and $911 less than schools serving 90% or more White students (U.S. Department of Education, 2012).

According to a national study conducted by Spatig-Amerikaner (2012) for the U.S. Department of Education, schools across America spent $334 m, sca spent $309ha reW*7] TJETQq0.00000912

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Figure 1

Intersectionality of student characteristics