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The School-to-Prison Pipeline for Probation Youth with Special Education Needs

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Abstract

Juvenile justice-involved youth with special education eligibility may have distinct needs from other justice-involved youth that place them at higher risk of re-offending. This study examines the extent to which the comorbidity of risk factors, such as school challenges and mental and emotional health problems, is related to recidivism among probation youth with a diagnosis eligible for special education. Data came from the Washington State Juvenile Court Assessment provided to 4,317 youth adjudicated to probation for at least 3 months. We used independent sample t-tests and chi-square tests to assess the difference in mental health and school problems (e.g., suspension/expulsion history) between those with and without special education needs. Multiple regression models estimated the unique and cumulative role of special education status, mental health, and school problems in future recidivism. In the study sample, 39.6% (n = 1,708) of the youth had diagnoses eligible for special education; over 42% of these youth had two or more qualifying diagnoses. Controlling for demographics, mental health, and self-regulation skills, our findings suggest that probation youth with special education needs, compared to the rest of the probation youth, were more likely to recidivate. School exclusion increased the number of recidivisms significantly more for justice-involved youth with special education needs than those without special education needs. The findings of the study illuminate important factors for continued justice-involvement as well as insights into service and treatment planning for youth serving probation in the community, especially for those who are eligible for special education.

Keywords

juvenile justice; special education; mental health; probation youth; recidivism; school-to-prison pipeline

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In 2016, nearly one million youth under the age of 18 years old were arrested in the United States (Hockenberry & Puzanchera, 2018). Approximately 65%–75% of youth in the juvenile justice system suffer from mental, emotional, behavioral, and/or physical health problems (Teplin et al., 2002; Baglivio et al., 2014); because of these problems and challenges, many of them have been found eligible for special education services. Although the rate of special education in the juvenile justice system has varied markedly by state (9.1%–77.5%), on average, one in three justice-involved youth qualify for special education, over twice the rate observed in the general population (14%) (McFarland et al., 2019). The most common qualifying diagnoses for special education for youth in the juvenile justice system include learning disability (38.6%), emotional disturbance (47.7%), and intellectual disability (9.7%) (Quinn et al., 2005).

Despite these troubling statistics, little research has focused on justice-involved youth in need of special education (Diaz et al., 2015). The few studies that have identified service needs and treatment strategies have primarily focused on youth detained in secure facilities (e.g., Leone et al., 2002). Since approximately 64% of justice-involved youth are ordered to probation (Hockenberry & Puzanchera, 2019), understanding the developmental risk and resilience factors for recidivism among probation youth who qualify for special education would provide critical insights into disrupting the pathways through which the school-to-prison pipeline occurs.

Theoretical Pathways for Special Education-to-Prison Pipeline

The overrepresentation of youth with developmental disabilities in the juvenile justice system has largely been theorized to occur in three ways: school failure, susceptibility, and differential treatment. The school failure theory (Osher et al., 2002) suggests that these youth struggle academically, which increases their likelihood of leaving school (e.g., dropout, suspension, expulsion) and subsequently engaging in delinquency. Of note, while we adopt the school failure theory to guide our conceptual framework, we recognize that the term “school failure” lays unnecessary burden on the student. Since school practices and policies can largely contribute to what the theory refers to as “school failure,” we selectively focus on school exclusion experiences (i.e., expulsion, suspension). The susceptibility theory (Keilitz & Dunivant, 1986) posits that the characteristics that accompany their disabling conditions—such as low impulse control, irritability, and poor problem-solving skills—lead to delinquency. The differential treatment theory (Rutherford et al., 2002) suggests that youth with disabilities who qualify for special education simply experience more punitive treatment across school and juvenile justice systems than their peer counterparts. Regardless of the pathway, youth with disabilities continue to penetrate deeper into the juvenile justice system instead of receiving needed services, jeopardizing their future prospect of success.

Conceptual Framework

Based on these three theories and related research findings, we have outlined a conceptual framework to capture pathways by which youth with special education needs get funneled into the justice system. Youth with mental, emotional, and behavioral (MEB) problems in schools are at higher risk for engaging in problematic behaviors, such as early substance

use and aggressive or violent behaviors, that might lead to involvement in the juvenile justice system (O’Connell et al., 2009; Figure 1, Path A). The pathway to the juvenile justice system for youth with MEB problems might also be mediated through either special education referral/identification (Figure 1, Path B+C) or harsh disciplinary practice (Figure 1, Path D+E). Path B+C and Path A are different in that Path B+C provides a potential opportunity to intervene when youth are identified as having special education needs (Landrum et al., 2003; Morgan et al., 2017). Path D+E represents youth with MEB problems—possibly unidentified for special education needs or other support service needs but labeled as “problem kids” in school—receiving recurring disciplinary infractions and, ultimately, getting involved in the justice system (Morgan et al., 2012, 2015).

Additionally, youth with MEB problems might be identified as needing special education services and, yet, still receive harsh discipline and, in turn, enter into the justice system (Figure 1, Path B+F+E). Studies have shown that youth in special education are more likely to experience school failure and exhibit the kinds of behavioral issues that lead to disciplinary problems (Leone et al., 2002; Skiba, 2002), often resulting in suspension or expulsion. In fact, youth with special education needs are seven times more likely than youth without special education needs to be expelled or suspended (Quinn et al., 2005), which increases the likelihood of juvenile justice system involvement in the year following a suspension or expulsion (Fabelo et al., 2011). Once involved in the juvenile justice system, youth with special education needs have a higher likelihood of recidivism than their juvenile justice counterparts without special education needs (Bullis et al., 2002).

While we focus primarily on the failings within the school system, resource-deprived environments (i.e., access to stable housing, family economic hardship) for many justice-involved youth can increase the likelihood of life adversities and conduct problems that bring them to the attention of the juvenile justice system (e.g., Logan-Greene et al., 2020). These adverse experiences are likely amplified in their effects in the case of youth with special needs. Thus, family context from which these youth come also need to be considered.

Mental Health Disorders and Self-Regulation Skills among Special Education Youth

Although not all youth with mental health issues are addressed in special education programs, youth with mental health issues that cause significant impairment often receive special education services (DuPaul et al., 2019), especially if their mental health issues negatively impact their academic achievement. The Individuals with Disabilities Education Improvement Act (2004), known as IDEA, includes other health impairments and specific learning disabilities in its definition of a child with disabilities; youth who receive special education services because of other health impairments—which includes those with ADHD, emotional disturbances, and specific learning disabilities—are more likely than general education students to experience symptoms associated with mental health disorders (DuPaul et al., 2019; Handwerk & Marshall, 1998; Maag & Reid, 2006). Overall, compared to their peers who are not in special education, students in special education exhibit significantly

higher externalizing and internalizing behaviors (Morgan et al., 2010), which are associated with psychopathology and mental health disorders. Furthermore, students with lower self-regulatory skills, as reported by their teacher, are more likely to be in special education (Morgan et al., 2015); and youth with lower self-regulation skills, both self-reported and reported by their parent, are more likely to be arrested (Buckner et al., 2009). Self-regulation skills, or goal-directed behaviors (Hofmann et al., 2012), are necessary for academic and social success. Although these skills tend to be stable over time, self-regulation skills are amenable to change with intervention, even for adolescents in high school (e.g., Duckworth et al., 2011) or in juvenile justice facilities (Murray et al., 2018).

It is important to understand these service needs and access within the larger social and political context. Although most federal and local government agencies (e.g., OJJDP, CDCR) state that the main purpose of the juvenile justice system is rehabilitation, the inadequacy of various services in juvenile justice settings still persist due to the lack of social consensus around the role and philosophy of juvenile justice agencies (Kim et al., 2020). In some instances, the goal is not rehabilitation but control through punishment – to teach them a lesson. Therefore, relatively few resources are devoted to addressing the mental health and educational needs of justice-involved youth. According to IDEA (2004), however, youth with special education needs have the *right* to receive a free and appropriate public education in the least restrictive environment. Under IDEA, child with a disability is defined as a child (i) with intellectual disabilities, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance (referred to in this chapter as “emotional disturbance”), orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities; and (ii) who, by reason thereof, needs special education and related services. Although recent investigations using diagnostic instruments have exposed the need for services to treat psychiatric disorders (e.g., Duclos et al., 1998; Garland et al., 2001; Randall et al., 1999; Teplin et al., 2002), little research has focused on assessing special education eligibility in juvenile justice settings. A lack of assessment and identification of special education needs, inconsistent definitions for eligible disabilities, and inadequate service provisions (Rutherford et al., 2002; Burke & Dalmage, 2016) have created a huge gap in special education services in the juvenile justice system. Special education eligibility, however, determines a child’s entitlement and access to mental health and other educational services *required* under IDEA, which may be a vehicle to expand service provisions for this population.

Study Approach

Applying the conceptual reasoning and guided primarily by school failure and susceptibility theories, this study first tests the incremental and cumulative contributions of special education–eligible diagnoses, mental health problems, self-regulation skills, and school discipline in explaining subsequent recidivism among probation-serving youth. We then test the moderated contribution of school discipline in estimating the relationship between special education diagnosis and recidivism. The findings of the study can help illuminate important factors for continued justice-involvement (i.e., recidivism) as well as insights into

service and treatment planning for youth serving probation in the community, especially for those who are eligible for special education.

Method

Data

Data for this study came from the Washington State Juvenile Court Assessment (WSJCA) (Washington State Association of Juvenile Court Administrators, 2004; Barnoski, 2004) for one local county, a diverse jurisdiction that spans urban and rural areas as well as Native American reservations. The instruments used in WSJCA are empirically based and research validated (Barnoski, 2004), and they offer in-depth assessment of risk and promotive factors across multiple life domains. To ensure enough time passed for re-offense, this paper used predictor variables from 2003–2012 data and included re-offense data collected through 2013. Probation officers conduct semi-structured interviews to implement the risk assessment tool using motivational interviewing strategies and triangulating information with court records (e.g., dependency court) as well as interviews with collateral contacts (e.g., parents and teachers). Probation officers receive training to implement the assessment tool and must become certified by the state's quality assurance coordinator. In this particular jurisdiction, the court conducts a screening risk assessment on all youth who come in contact with the system and subsequently conducts a full risk assessment among those offenders who are deemed moderate to high risk based on the screening. Our study uses the first full assessment data for all youth. Access to the dataset was obtained with approval from local and state court offices, and all parts of the study were approved by the University of Washington Institutional Review Board, application #44995, Psychological Well-being Among Youth on Juvenile Justice Probation.

Sample

The study included all youth in the selected jurisdiction ($N = 4,317$) assessed between 2003–2012 using Back On Track, 4th generation (BOT 4.0) and their re-offense data through 2013. The sample included youth identified by the court as moderate to high risk for re-offense (Barnoski, 2004) and who were given a minimum of 3 months' community probation between 2003 and 2012, excluding youth who committed sex offenses. Girls made up 23.5% of the sample, and the average age of the sample was 15.5 years ($SD = 1.46$). Racial and ethnic composition was 60.5% White/European American, 23.5% Black/African American, 7.4% Hawaiian Native/Pacific Islander, 5.7% Latinx/Hispanic, 3.3% Asian/Asian American, 3.2% Native American/Alaskan Native, and 0.4% other race or ethnicity.

Measures

Measures are defined in WSJCA Version 2.1 (Washington State Association of Juvenile Court Administrators, 2004). In some scales, we included Likert-type items with different ranges (e.g., an item that had 4 answer options and an item that had 5 answer options). In those cases, we standardized and averaged the items to create a mean-based scale with mean values that neared zero.

Demographics—Sex, race/ethnicity (White/European American, Black/African American, Native American/Alaskan Native, Asian/Asian American, Hawaiian Native/Pacific Islander, Latinx/Hispanic, other race), age in years, and family socioeconomic disadvantage (0–4; count of 1) family income below \$15,000 or below poverty line, 2) no health insurance, 3) individual or family homelessness, and 4) history of parental employment problems) were included as control variables.

Special Education—We identified youth as ever having had special education needs (0/1) if the assessment indicated that he or she 1) was a current/past special education student or 2) has/had any/all formal diagnoses of special education need: learning disability, behavioral disorder, mental retardation,¹ and attention deficit hyperactivity disorder (ADHD). While these diagnoses specified in the assessment tool do not encompass the entirety of diagnoses eligible for special education, they have shown to be associated with other mental health problems (e.g., DuPaul et al., 2019).

Mental Health Problems—We combined two items to create a dichotomous (0/1) measure to assess whether youth had past or current mental health problems. This was operationalized by a yes response to any one of the following questions: Does youth have a current mental health problem or history of any of the following: diagnosed with mental health problems, mental health medication prescribed, received mental health treatment, or mental health medication prescribed and received treatment?

Self-Regulation Skills—Problem-solving skills was a mean scale of five standardized items (e.g., does youth understand that actions have consequences, does youth search for and use solutions to problems) ($\alpha = .88$). Impulse control was a mean scale of seven standardized items (problems with impulsive behaviors, monitor internal triggers, monitor external triggers, skills dealing with difficult situations, skills dealing with difficult emotions, problems with aggression control, self-control skills) ($\alpha = .83$).

School Exclusions—An ordinal scale of number of past expulsion and suspension was dichotomized (0 = no expulsion/suspension; 1 = any expulsion/suspension). The assessment tool specifically notes out-of-school suspensions and expulsions.

Recidivism—In the Washington State Juvenile Court jurisdiction, a new assessment is conducted at each subsequent re-offense. Thus, a new assessment record indicated a re-offense. The number of re-assessments was used as the number of re-offenses within the jurisdiction between 2003 and 2013.

Analysis

We first used independent sample t-tests and chi-square tests to examine the extent to which probation youth with and without special education needs differed on demographic characteristics, mental health histories, school exclusions, and recidivism.

¹We recognize that the terminology for intellectual disabilities is evolving and that both lay and professional people are moving away from using the term “mental retardation.” We use the term in this paper to align with the terminology used in the WSJCA assessment tool.

Hierarchical stepwise regression was used to estimate unique and cumulative contribution of demographics (sex, race/ethnicity, age), mental health issues, and school exclusion experiences. The final regression model included interaction terms between school exclusions and special education to estimate the extent to which school exclusions further increased recidivism rates for probation youth with special education status. We dealt with missing data (0%–7.8%) by using maximum likelihood estimates, and all analyses were conducted using Stata v.10 (Stata Corporation, 2004).

Results

Sample Characteristics

In our study sample, 39.6% ($n = 1,708$; See Table 1) of the youth endorsed at least one special education–qualifying diagnosis. Of that number, 42% had two or more diagnoses qualifying for special education. When each sub-category of special education was taken individually, 19% of youth received special education for behavioral problems, 19.5% received services for ADHD, 22.2% were enrolled for a learning disability, and 0.7% reported intellectual disability. Eighty-six percent of the youth who were not receiving special education had had at least one suspension or expulsion, compared to 93% of youth with special education needs ($p < .001$). Moreover, youth with special education needs endorsed a higher percent of current and past mental health problems (46%) compared to their non–special education peers (20%) ($p < .001$), lower levels of impulse control ($p < .001$), and lower levels of problem-solving skills ($p < .001$). Table 2 presents a correlation matrix across all variables included in the study.

Recidivism

Table 3 summarizes the multiple regression models that predict recidivism, which are discussed below.

Probation youth with special education needs had significantly higher numbers of re-offenses (Model 1; $\beta = .14$; $p < .001$). In Model 2, we found that Black/African American youth compared to White/European American youth ($\beta = .06$; $p < .001$) and boys compared to girls had significantly higher numbers of re-offenses ($\beta = -.04$; $p < .05$). Controlling for demographic characteristics (Model 2), probation youth with special education needs continued to have significantly higher numbers of re-offenses ($\beta = .08$; $p < .001$).

In Model 3, youth with past or current mental health problems were significantly more likely to have higher numbers of re-offenses ($\beta = .04$; $p < .05$), whereas having better impulse control was significantly associated with lower number of re-offenses ($\beta = -.08$; $p < .01$). After we controlled for demographic characteristics, mental health problems, and self-regulation skills (problem solving skills, impulse control), we found that special education needs were still significantly associated with higher numbers of re-offenses ($\beta = .06$; $p < .001$).

Having any school-exclusion experience (Model 4) was significantly associated with higher numbers of re-offenses ($\beta = .06$; $p < .001$). When we accounted for school exclusion history as well as demographic characteristics, mental health problems, and self-regulation skills,

we found that youth with special education needs had significantly higher numbers of re-offenses ($\beta = .05$; $p < .01$). When we included interaction terms between school exclusion experiences and special education status (Model 5), the results indicated that expulsion or suspension history for probation youth with special education status was significantly related to increased numbers of re-offenses ($\beta = .19$; $p < .001$); in other words, having expulsion or suspension experience was more strongly related to recidivism for youth with special education status than those without (See Figure 2). This moderated relationship also indicated that youth with special education status *without* expulsion history, however, was significantly related to fewer numbers of re-offense ($\beta = -.12$; $p < .001$).

Discussion

This study examined the possible avenues by which probation youth with special education needs experience the school-to-prison pipeline. Informed by theory, we assessed the unique role of special education needs in relation to increased number of recidivisms, accounting for mental health problems, self-regulation skills, and school exclusion experiences. In the study sample, 40% of probation youth reported having special education needs, a significant overrepresentation compared to 14% of the general of all public-school students (McFarland et al., 2018). Our findings extend support for both school failure (Osher et al., 2002) and susceptibility (Keilitz & Dunivant, 1986) theories—demonstrating the concomitant explanatory importance of MEB problems, lower self-regulation skills, and school exclusion experiences. Specifically, mental health problems, lower self-regulation skills, and school exclusion experiences were each related to significantly increased rates of recidivism, indicating that they are important risk factors for youth's continued involvement in the justice system.

Our research is consistent with the susceptibility theory (Keilitz & Dunivant, 1986), wherein characteristics such as greater mental health problems as well as poor impulse control and problem-solving skills galvanize problematic behaviors that get youth into trouble. Our findings show that probation youth with special education needs are significantly associated with greater mental health problems, lower self-regulation skills, and more school exclusion experiences. Given the increased levels of mental health problems among youth with special education needs, those youth may particularly benefit from the presence of school-based mental health clinics that provide access to mental health services on the school ground (Bains & Diallo, 2016; Weist et al., 2017). Addressing underlying mental health problems might help prevent problematic behaviors that lead to school exclusion experiences and, ultimately, reduce the likelihood of juvenile justice contact. Additionally, research suggests that mental health problems can increase in severity as youth penetrate deeper into the system (Beaudry et al., 2020; Teplin et al., 2012). Thus, for those with severe mental health disorders, access to specialty courts, such as mental health courts, would help facilitate service linkages (Heretick, 2017). Early screening, identification, and assessment (i.e., for those entering probation for the first time) would also be important (Logan-Greene et al., 2017) for streamlining the process for youth to receive needed mental health services within juvenile facilities as well as in the community (Robst, 2017; White, 2019).

Furthermore, as we hypothesized, our findings show that youth with special education needs exhibit less developed self-regulation skills; and these skills (particularly low impulse control), in turn, are associated with higher recidivism rates. Research has shown that adolescents, in general, do not have fully developed prefrontal cortex; therefore, they are more likely to exhibit lower impulse control, which increases the likelihood of problem behaviors (Steinberg et al., 2004). Thus, youth with even lower impulse control may exhibit more frequent and serious problem behaviors that continue their involvement in the juvenile justice system.

Social-emotional learning (SEL) programs have been extensively studied as effective avenues to improve social and academic outcomes and reduce problem behaviors for youth (Corcoran et al., 2018; Greenberg & Weissberg, 2018; Weissberg et al., 2013). There has also been a movement towards adopting the SEL framework within juvenile justice education settings (de Azúa, 2018; Tolan et al., 2015). Our findings suggest that targeting problem-solving and emotional-regulation skills through an SEL curriculum would help probation youth with special education needs, not only in community school settings but also in confinement school settings, and thereby reduce their repeated involvement in the justice system. A major benefit of this approach is that it provides an opportunity to focus on important skills to foster in probation youth, rather than risks and problems to reduce.

The school failure theory (Osher et al., 2002) describes how difficulties in school (such as failing grades, dropout, and expulsion/suspension) can lead youth into the juvenile justice system. We found that even one school-exclusion experience (i.e., expulsion or suspension) increases the rates of recidivism. This is an important finding that highlights the detrimental effect that *any* school-exclusion experience has on justice involvement. Research and programs that focus primarily on the number of school exclusion experiences can emphasize “problematic” youth rather than seeking to identify processes and solutions that may be systematically disadvantaging youth with special education needs. The emergent unique effects of special education status may also suggest differential treatment theory (Rutherford et al., 2002), which proposes that these youth experience—potentially due to stigma (Shifrer, 2013; Skiba, 2012)—more punitive treatment across school and justice settings. More than 90% of youth with special education needs in our study sample had at least one school exclusion experience. While these exclusion experiences are associated with repeated involvement in the juvenile justice system for all probation youth in the sample, they were more strongly associated with increased rates of recidivism for youth with special education needs.

IDEA requires that a team of parents and educators develop an individualized education plan (IEP) for any youth identified to have special education needs and that the youth receive related services free of charge. For cases in which behavioral problems are manifestations of special education needs (where problem behaviors interrupt the education of self and/or others), the IEP identifies behavioral intervention plans to use as alternatives to removal from class or school; the Office of Special Education and Rehabilitative Services (2009) offers guidance on appropriate intervention policies. Requirements and recommendations set by IDEA apply to all probation youth, both in the community and in detention settings (Musgrove & Yudin, 2014; Geis, 2013). To ensure a supportive learning environment,

systematic screening and identification of youth with special education needs (beyond assessment tools that rely on youth to self-report) can be an important step towards breaking the cycle of the school-to-prison pipeline.

Common complications exist that make this high-needs population even more vulnerable to justice involvement. Probation youth are often subject to missing school records, lengthy delays in record transfer, missing academic credits, and frequent changes in schools, making transition planning difficult (Leone & Weinberg, 2010). When youth are discharged from the juvenile justice system, they are often denied reentry into their home school (Leone & Weinberg, 2010) and relegated to alternative schools with subpar educational curricula and varying policies (Carver et al., 2010) that may not meet be able to meet the students' special needs. Incarcerated youth with disabilities have also been noted to spend more time in disciplinary confinement (Leone & Weinberg, 2010). The juvenile justice system often receives inadequate financial and administrative support, and many academic and behavioral accommodations are not instituted while incarcerated (Leone & Weinberg, 2010). Moreover, many youth have parents/educational rights holders who lack knowledge and resources to effectively navigate the laws and services available for their children. A continuum of care where schools and probation can share records and work collaboratively with families to coordinate services and supports is crucial for this population. Recently, California passed legislation to require the county office of education to collaborate with the county probation department to develop an individualized transition plan for any young person enrolled in a juvenile court school for more than 20 consecutive school days. The act also requires that records and documents related to the transition plan be made available to the young person's educational rights holder (e.g., parent) upon the juvenile's release (Act to amend §48647 of the Education Code, 2019). This is a meaningful step towards addressing these common complications.

The findings of the study also have implications for policy. It is important to highlight that special education youth without expulsion history were significantly related to lower rates of recidivism. As hypothesized in our conceptual framework, this may indicate that youth identified with special education needs would benefit from added services and attention to first avoid the school-to-prison pipeline, and later successfully transition out of the juvenile justice system. It would be imperative to establish an accountability mechanism for local school districts, county/state mental health agencies, probation, and welfare agencies to not only adequately identify youth with special education needs but also provide access to appropriate programs and modified educational curricula that enhance social-emotional and academic success and prevents suspension or expulsion for these youth. This is especially important given the current context of the COVID-19 pandemic where distance learning has further marginalized youth with special education needs as well as justice-involved youth.

Finally, it is important to note that consistently across all models tested, we found that Black/African American youth had a significantly higher number of re-offenses. Given this, we conducted a post hoc subgroup analysis by Black and White youth in the sample, which revealed that the findings of the study regarding other predictors remained true for White youth. For Black youth, other predictors (e.g., special education, impulse control, expulsion) did not retain statistical significance, although at the bivariate level, special education status

was significantly related to greater rates of recidivism for these youth. The strength of this singular racial/ethnic predictor further highlights the potential racial bias in the juvenile justice system that continues to affect Black/African American youth. Future studies that focus primarily on racial/ethnic disparities would be warranted to understand the mechanism by which Black/African American youth are being fast-tracked on to the school-to-prison pipeline.

Despite the decline in the number of youth involved in the juvenile justice system over the years, youth of color continue to be disproportionately represented in the system (Hockenberry & Puzanchera, 2019; Kim et al., 2020). Findings are often mixed regarding the over- or under-referral of African American youth to special education services (Grindal et al., 2019; Mendoza et al., 2020; Perkins et al., 2011); more studies are needed to assess the degree to which referrals and services are attributed to racial testing bias, differences in healthcare access, and poverty-related differences and to challenge the status quo that further marginalizes African American youth from quality education. Moreover, studies have shown that Black youth are far more likely to receive suspension or expulsion, despite similar levels of problem behaviors with their White peers, which in turn, contributes to their overrepresentation in the justice system (e.g., Bradshaw et al., 2010; Skiba et al., 2002; Wallace et al., 2008). Policies and interventions, therefore, must address systemic roots of racism to ensure that racial disproportionality is reduced.

Limitations and Future Directions

The study has some limitations. The data derive from an assessment by probation officers that largely utilizes self-report by the youth. The assessment tool identifies special education needs based on three common diagnoses that do not cover the entirety of diagnoses eligible for special education, and youth may have been unaware of developmental or behavioral diagnoses that apply to them. Nevertheless, probation officers are trained to use the assessment tool and to triangulate the obtained information with official records (e.g., mental health service, schools, child protective services). Youth with special education needs have diverse and complex needs, representing a heterogeneous group. We are limited, however, in separating out the categories reflected in the assessment because many students are in multiple categories. Research has shown quite a bit of overlap between learning disability and mental retardation categories as well as between conduct disorder and ADHD. As these four categories are all considered “high incidence” and “mild/moderate disabilities,” this study conceptually defines as one overarching category (Gresham et al., 2001). We recognize this shortcoming and future studies should test additional ways to capture the heterogeneous nature of special education needs. As is the case with administrative data sources, analyses were limited to items available without the ability to introduce additional questions or reword phrasing of questions – one such example is the actual offense that led to current probation. We conducted our analyses based on data collected from within one state county, which may limit the study’s generalizability. However, the diversity of this county may mitigate that limitation, since it is more racially and ethnically diverse than many jurisdictions and contains a mixture of rural, urban, and suburban locations in addition to Native American reservations.

Beyond these limitations, this study provides a valuable lens with which to understand the school-to-prison pipeline experienced by probation youth with special education needs. Probation reaches almost all youth in the juvenile justice system. Probation can be the final disposition (i.e., in-home, formal, informal—about 64% of the cases) or attached as part of the out-of-home-placement disposition (about 25% of the cases) (Torbet, 1997; Hockenberry & Puzanchera, 2019). For youth receiving probation as their final disposition, well-coordinated services that address their mental health and special education needs in their home environment will help avoid further involvement in the justice system. For youth receiving community probation following out-of-home placement, these services will address the youth's needs for reentry. Studies have shown that youth with special education needs who enroll in a school or get employed in the first 6 months following incarceration are over three times less likely to recidivate (Unruh & Bullis, 2005). Therefore, a carefully devised service plan that addresses the underlying conditions (e.g., MEB problems) and develops necessary skills can serve as a plug to stop the school-to-prison-pipeline and prevent youth, particularly youth of color, from entering and reentering the justice system.

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Public Policy Relevance:

Understanding the developmental risk and resilience factors for recidivism among probation youth who qualify for special education provides critical insights into disrupting the pathways through which the school-to-prison pipeline occurs. Our research suggests that special education-eligible youth who enter the juvenile justice system require extra services to support academic, socioemotional, and mental health needs to prevent recidivism, and ultimately to dismantle the school-to-prison pipeline.

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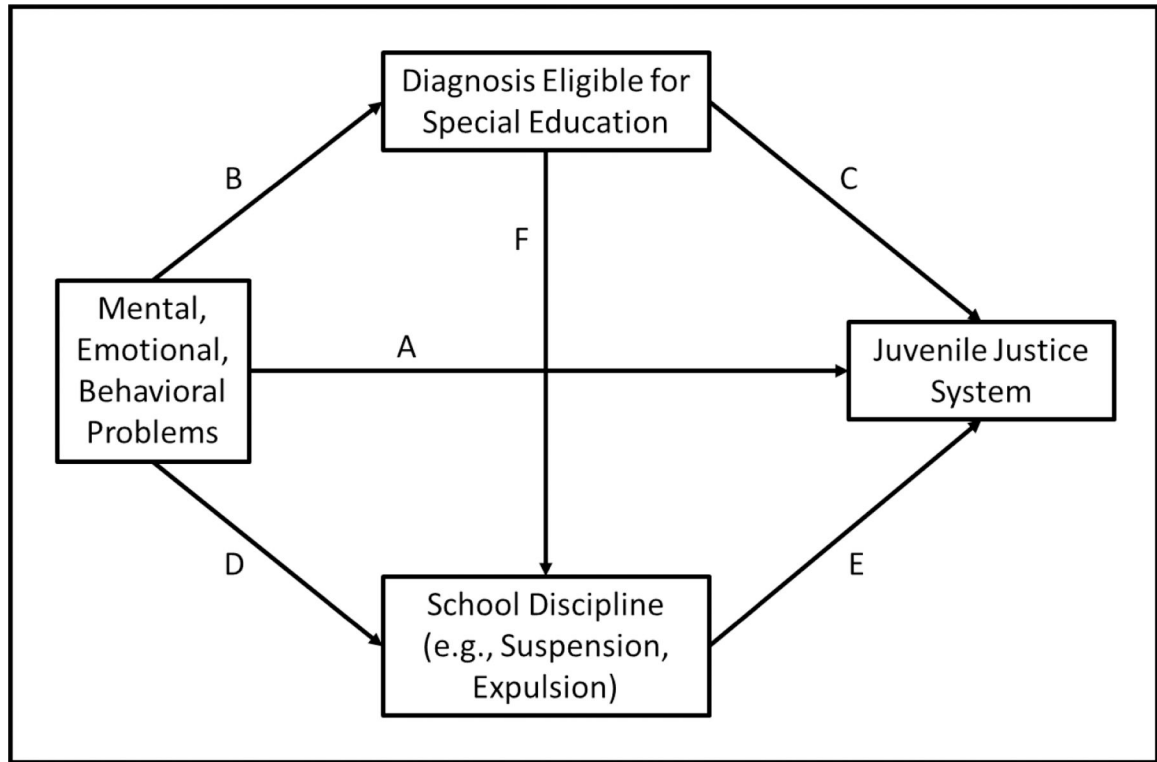


Figure 1. Conceptual framework of special education to the school-to-prison pipeline
Note. Pathways are defined in the text.

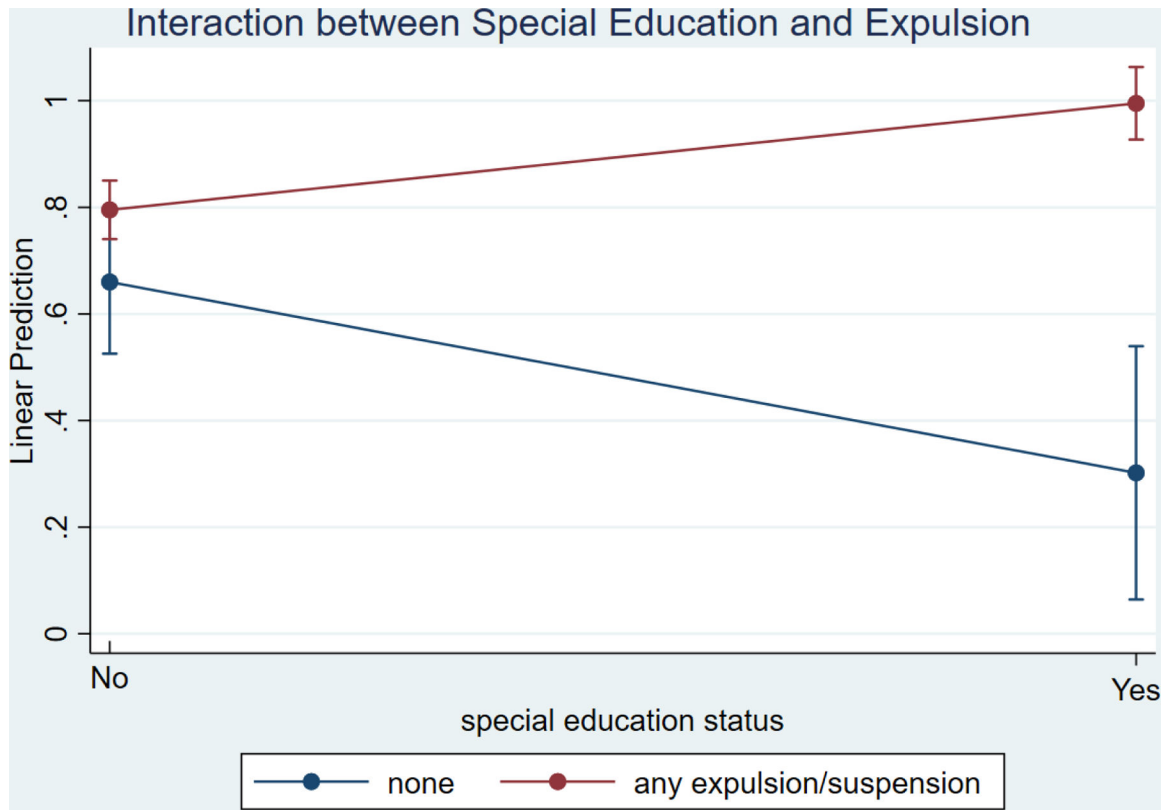


Figure 2. Moderated relationship between special education status and expulsion experiences relative to recidivism

Note. Predicted coefficients with 95% confidence interval

Table 1

Sample characteristics by special education status

Variables	Total (row total = 100%)	Special Education	
		Yes (row total %)	No (row total %)
Recidivism			
Average Number of Re-offense (0–13) ^a	0.81	1.05	0.65
Any Re-offense (0/1) ^b	38.57%	47.01% (48.23%)	33.04% (51.77%)
Race/Ethnicity^b			
White/European American	60.50%	64.78% (41.86%)	57.76% (58.14%)
Black/African American	25.13%	25.71% (40%)	24.75% (60%)
Native American/Alaskan Native	3.24%	2.89% (34.88%)	3.47% (65.12%)
Asian/Asian American	3.27%	1.16% (13.85%)	4.62% (86.15%)
Hawaiian Native/Pacific Islander	7.41%	4.95% (26.10%)	8.99% (73.90%)
Latinx/Hispanic	5.65%	4.05% (28%)	6.68% (72%)
Other race/ethnicity	0.45%	0.51% (44.44%)	0.41% (55.56%)
Sex^b			
Boys	76.51%	83.84% (43.35%)	71.71% (56.65%)
Girls	23.49%	16.16% (27.22%)	28.29% (72.78%)
Age (in years) ^a	15.49	15.28	15.63
Family Socioeconomic Disadvantage (0–4) ^a	0.43	0.45	0.41
Mental Health (MH)			
Current/History MH Status (0/1) ^a	30.30%	46.31% (60.47%)	19.82% (39.53%)
Self-Regulation Skills			
Problem Solving ^b	0.06	-0.17	0.21
Impulse Control ^b	0.05	-0.11	0.16
School Exclusions			
Any Expulsion/Suspension History (0/1) ^a	88.90%	93.21% (41.48%)	86.09% (58.52%)

^a t-test

Note: Chi-square tests (for column and row total percentages) and t-tests conducted were statistically significant at the $p < .001$ level.

χ^2 Chi-square test

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Table 2.

Correlation matrix of all study variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
(1) Special Education																
(2) Af Am	.01															
(3) Na Am	-.02															
(4) As Am	-.10	***														
(5) Pac Isl	-.08	***														
(6) Lat/Hisp	-.06	***														
(7) Euro Am	.07	***														
(8) Other race	.01															
(9) Girls	-.14	***	.01	.06	***	.001	-.03	-.04	**	-.01	-.01					
(10) Age	-.12	***	-.06	***	-.03	*	.00	-.01	.06	***	.00	-.02				
(11) Fam Disadv	.03		.03	*	.02	.03	*	.03	-.03		-.00	.05	**	-.07	***	
(12) MH Problems	.28	***	-.13	***	-.03	-.10	***	-.08	***	-.05	***	-.02	-.04	**	-.07	***
(13) Problem Solving	-.22	***	-.06	***	-.03	.005	.01	-.002	.06	***	-.01	.04	**	-.14	***	-.13
(14) Impulse Control	-.19	***	-.03	*	-.02	.02	.03	-.001	.03		-.01	.03	-.14	***	-.15	***
(15) Any Expulsion	.11	***	.07	***	-.02	-.03	*	-.001	-.05	**	.001	-.10	***	-.02	.05	***
(16) Recidivism	.14	***	.09	***	-.004	-.03	*	.02	-.07	***	-.001	-.04	*	-.44	***	-.20

Af Am=Black/African American; Na Am=Native American/Alaskan Native; As Am=Asian American; Pac Isl=Hawaiian Native/Pacific Islander; Lat/Hisp=Latinx/Hispanic; Euro Am=White/European American; Fam Disadv=Family socioeconomic Disadvantage; MH=Mental Health

* $p < .05$

** $p < .01$

*** $p < .001$

Table 3

Multiple regression models predicting recidivism^a

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	SE β	B	SE β	B	SE β	B	SE β	B	SE β
(Constant)	0.65***	.03	7.10***	.22	6.79***	.23	6.57***	.23	6.62***	.23
Special Education ^b	0.39***	.04	0.24***	.04	0.16***	.04	0.15**	.04	0.05	0.14
Race/Ethnicity ^c										
African American			0.20***	.05	0.22***	.05	0.20***	.05	0.20***	.05
Native American			-0.06	.11	-0.05	.11	-0.01	.11	-0.04	.11
Asian American			-0.13	.11	-0.10	.11	-0.01	.11	-0.09	.11
Pacific Islander			-0.03	.15	-0.02	.15	-0.00	.15	-0.02	.15
Latinx/Hispanic			0.17	.17	0.16	.17	0.03	.17	0.17	.17
Other race/ethnicity			0.07	.30	0.07	.30	0.00	.30	0.08	.30
Sex ^d										
Girls			-0.12*	.05	-0.13**	.05	-0.04	.05	-0.11*	.05
Age			-0.41***	.01	-0.39***	.01	-0.40	.01	-0.39***	.01
Family Disadvantage			0.04	.03	0.02	.03	0.01	.03	0.01	.03
Mental Health (MH)					0.12*	.05	0.04	.05	0.11*	.05
Cur/Hist of MH ^b										
Self-Regulation					-0.03	.04	-0.02	.04	-0.01	.04
Problem Solving					-0.15**	.05	-0.08	.05	-0.07	.05
Impulse Control										
School Exclusions										
Any Exp/Susp ^b					0.28***	.06	0.06	.06	0.14	.07
Interaction Term										
Special Ed X Exc ^e									0.56***	0.14
<i>F</i>	84.87***		103.08***		84.02***		79.70***		75.63***	
<i>R</i> ²	0.02		0.21		0.22		0.22		0.22	

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^aRecidivism is operationalized as number of re-offenses

^bDichotomous measures (0/1)

^cReferent category: White/European Americans

^dReferent category: Boys

^eSpecial Ed X Exc: Interaction term between special education status and any expulsion or suspension

* $p < .05$

** $p < .01$

*** $p < .001$