Comparison of Educationally Labeled and Nonlabeled Adolescents With Emotional and Behavioral Needs

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Abstract

Epidemiologic research suggests a gap between prevalence estimates of students with emotional or behavioral problems and the actual number of students identified under the federal category of emotional disturbance (ED). To better understand issues related to the identification gap, we investigated the academic and behavioral functioning, school-based services, frequency of discipline incidents, and predictors of labels among 626 secondary age students referred for participation in a larger study due to emotional and behavioral difficulties. Students with special education labels (i.e., ED, specific learning disability [SLD], other health impairment [OHI]) were compared to those who did not have a school label. Analyses indicated that there were no significant differences between groups on standardized measures of emotional and behavioral functioning. Academic performance was the only distinction, with students with learning disabilities scoring significantly lower in reading and math than students with other disability types or without disabilities. Students without an ED label received significantly fewer services whereas students with an ED label received significantly higher rates of disciplinary actions. Finally, demographic data examined did not differentially predict receipt of a label.

Keywords

adolescent age group, behavioral disorders, emotional or behavioral disabilities

The Individuals with Disabilities Education Improvement Act (IDEA, 2004) provides the legal mechanism to assure students with emotional and behavioral problems receive services that address their needs. IDEA requires public schools to provide special education services to students identified as having a disability who demonstrate the need for specially designed instruction. Moreover, IDEA's childfind mandate (34 C.F.R. § 300.111) requires that schools identify, locate, and evaluate students in need of special education and related services, even as they advance from grade to grade (§ 300.111[c][1]). Nevertheless, epidemiologic research continuously suggests that there is a sizable gap between prevalence estimates of students with "emotional disturbance" (ED) and special education identification (Forness et al., 2012b).

Researchers have estimated that between 10% and 20% of school-age children exhibit persistent emotional or behavioral problems and need some type of mental health services (Ghandour et al., 2012; Merikangas et al., 2010). However, the percentage of students who receive special education services under the category of ED has consistently been under 1% (National Center for Education Statistics, U.S. Department of Education, 2015). Consequently, many students may fail to receive special education services to which they are legally entitled.

Although many have speculated about reasons for the mismatch between incidence rate and identification (Forness et al., 2012a, 2012b; Kalberg et al., 2011), limited research has directly examined characteristics of students with and without a special education label or the implications of a label with respect to school-based services.

Underidentification of Students with ED

Among all IDEA label categories, "Emotional Disturbance" (hereafter referred to as Emotional and Behavioral Disorders [EBDs]) has been fraught with the most significant problems related to identification, resulting in significant underidentification. One variable implicated in underidentification is the vague and ambiguous definition (Forness & Knitzer, 1992; Hanchon & Allen, 2013). For example, the characteristics required for eligibility are not

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supported by research pertaining to empirical or clinical subtypes of children with emotional or behavioral disorders (Forness et al., 2012a). Furthermore, EBD qualification stipulates a student's educational performance must be adversely affected. Regulations, however, fail to clearly delineate the term "educational performance." A narrow interpretation could limit eligibility to poor academic achievement, whereas a wider interpretation would include other important areas, such as social or behavioral performance (Forness et al., 2012a). Indeed, recent litigation indicates that courts view educational performance more broadly than academic performance alone and also consider nonacademic areas such as behavior and socialization important factors in determining eligibility (Weatherly, 2015; Yell et al., 2018). For instance, in the case of Jana K. (Jana K. v. Annville Cleona School District, 2014), the U.S. District Court ruled that Jana K.'s poor relationships with peers, frequent visits to the school nurse for emotional concerns, visits to the school counselor expressing thoughts of self-harm, among other concerning behaviors, should have triggered an evaluation and violated Child Find obligations. Courts also have ruled that schools should not consider students ineligible for EBD who attain satisfactory grades when they demonstrate serious mental health or behavioral needs and are otherwise eligible (Yell et al., 2018), further supporting the ambiguity of the term educational performance. In addition, the federal definition of EBD states that problem behavior must be exhibited "over a long period of time," but the exact amount of time is not clearly defined. This imprecise language leaves room for interpretation and may result in school personnel delaying evaluation and identification, even when behavioral or mental health needs are serious. In response, courts have indicated that signs of a disability do not have to be apparent for a long period of time for school personnel to have reasonable suspicion of a disability but rather students should be identified and evaluated within a reasonable period of time (e.g., Jana K. v. Annville Cleona School District, 2014; Regional School District No. 9 Board of Education v. Mr. and Mrs. M., 2009). A final concern with the definition is that students who are "socially maladjusted" are excluded, except when it is determined that they also have an ED (§ 300.8[c][4][ii]). However, IDEA does not define "social maladjustment," resulting in substantial disagreement regarding its intended meaning (Cloth et al., 2014). As noted by Merrell and Walker (2004) and Algozzine (2017), definitions of social maladjustment are confounded to some extent due to the frequent co-occurrence of externalizing conduct problems and other emotional or behavioral disorders.

Another variable contributing to underidentification pertains to the lack of training of school professionals in identifying mental health problems (Kalberg et al., 2011; Reinke et al., 2011). Special education evaluation is required when students demonstrate clear signs of mental health problems (e.g., mental health hospitalization, behavioral incidences in school, diagnosis from a private specialist, significant signs of depression or withdrawal) that indicate the need for special education services (Yell et al., 2018). Yet, students are far more likely to be referred for special education as a result of externalizing problems than for internalizing problems (Gresham & Kern, 2004; Walker et al., 2000), leaving a large group of students overlooked. Furthermore, teachers underestimate the impact of internalizing problems on students' long-term functioning, further contributing to underidentification (Abidin & Robinson, 2002; Splett et al., 2019).

An additional factor pertaining to underidentification is the stigma associated with emotional and behavioral problems, particularly in regard to school eligibility decisions (Hinshaw, 2005; Kern et al., 2017). Researchers have argued that the EBD label leads to stigmatization and some students are intentionally placed in special education categories other than EBD to avoid potential stigma. Farmer (2013) posited that the stigma of EBD identification, along with concerns regarding the efficacy of EBD programs, may result in the belief that placing a student in a special education program will be more harmful than helpful for a student's long-term development and outcomes. Lane et al. (2006) offered support for this speculation in a study comparing the academic, behavioral, and social skills of two groups of high school students, those with EBD and those with specific learning disabilities (SLDs). Although both groups were found to have significant academic problems according to standardized measures, teachers viewed students with SLD to be more academically competent than students with EBD.

Related to the aforementioned issue, misidentification also has been cited as a problem. Forness et al. (2012b) noted the possibility that a significant portion of students with emotional and behavioral problems may be served in special education categories other than EBD. In addition, the co-occurrence of disabilities and mental health disorders complicates identification. For example, in a national study of rural high school students, Farmer et al. (2011) found that many nondisabled students and students with SLD had school adjustment problems very similar to youth with EBD, suggesting that many adolescents are not being identified for special education services to support their emotional and behavioral needs.

Differences Among Students With and Without an EBD Label

Although underidentification in the EBD category is undisputed, research has identified several distinctions among students who receive an EBD label compared with nonlabeled students. For example, male students are more likely to be labeled as EBD than female students; males are approximately 80% of those identified (Sullivan & Bal, 2013; Wagner et al., 2005a). In addition, students from culturally and linguistically diverse backgrounds are consistently disproportionately represented in high-incidence disability categories, particularly EBD (Bal et al., 2014). In fact, African American students represent a significantly larger percentage of children and youth with EBD than is found in the general population (Wagner et al., 2005a). Furthermore, students from a lower socioeconomic status and single parent homes are also more frequently classified as EBD than their middle- to upper-class peers from traditional family units (Wagner et al., 2005a). However, limited research has examined the relationship of demographics and special education labeling among the larger population of students with emotional and behavioral problems. A greater understanding of demographics among students with and without the EBD label has the potential to explain underidentification.

Beyond demographic characteristics, a consequence of the EBD label appears to be differential application of disciplinary procedures. Research indicates that students with EBD have significantly higher rates of detentions, suspensions, and expulsions than students with other disabilities or their peers without disabilities (Mitchell et al., 2019; Office for Civil Rights, 2015–2016; Whitford et al., 2016). For instance, McElderry and Cheng (2014) found that students with EBD were 11 times as likely as their nondisabled same age counterparts and nine times as likely as students with any other disability to be excluded from school. One explanation for these differences is that students identified with EBD engage in more serious problem behaviors that result in harsher disciplinary responses. It is also possible that the EBD label affects teacher perceptions of students and subsequently their likelihood of delivering punitive procedures. Additional research is needed to explore these possibilities.

Service Provision

The primary benefit of a special education label is the legal guarantee of access to services. Ideally, services should be directly related to actual symptomatology and impairment (Langer et al., 2015), regardless of a student's primary disability category or special education identification status. It is possible that students with emotional and behavioral needs may receive school-based supports, with or without an ED label. Indeed, data indicate that although fewer than 20% of students in need of supports actually receive services, among those who do, the majority are provided by schools (Green et al., 2013; Langer et al., 2015; Merikangas et al., 2011). To date, however, limited research has examined the nature of school-based services that students access and the role of disability status and type.

Need for Current Study

In summary, although numerous conceptual papers and epidemiological studies have examined the gap between the estimated prevalence and identification rates of students with emotional and behavioral problems (e.g., Forness et al., 2012a, 2012b), none has explored the differences between students with and without an EBD label (George et al., 2018). Information of this nature could expand our understanding of variables associated with identification and other related consequences, such as disciplinary procedures. Furthermore, limited research has explored services that students at the high school level with emotional and behavioral needs-with and without a school label-receive. Such information is an important step for improving school-based services. Finally, existing research has not yet fully examined variables that may predict receipt and type of special education label. To address these gaps in the literature, the following specific research questions were posed:

- 1. Are there differences in academic and behavioral functioning, as measured by standardized assessments, among high school-age students identified as having emotional and behavioral problems based on the presence/absence of a special education label or label type (EBD, SLD, and OHI)?
- 2. Do school-based services that high school students identified as having emotional and behavioral problems receive (i.e., individual or group counseling, after-school tutoring, daily report cards, functional behavioral assessment [FBA], support in general education classroom) differ based on the presence/ absence of a special education label or label type (EBD, SLD, and OHI)?
- Do rates of student discipline received (e.g., office discipline referrals [ODR], detentions, in-school suspension [ISS], and out-of-school suspension [OSS]) differ based on the presence/absence of a special education label or label type (EBD, SLD, and OHI)?
- 4. Do demographic variables (e.g., gender, socioeconomic status [SES], ethnicity, and incidence of a biological parent outside the home) among high school age students identified as having emotional and behavioral problems predict receipt and type of special education label?

Method

Participants and Setting

Data from a larger study (i.e., Center for Adolescent Research in Schools; CARS) were used to answer the research questions. The purpose of CARS was to develop a comprehensive intervention for high school–age students with social, emotional, and behavioral problems and evaluate the intervention using a 2-year randomized controlled trial (RCT; Kern et al., 2020).

Fifty-four high schools across five states participated in the RCT, conducted 2011–2013. Schools in Kansas (n = 5), Missouri (n = 7), Ohio (n = 16), Pennsylvania (n = 10), and South Carolina (n = 16) were selected based on proximity to the universities of study researchers and willingness to engage in project activities. In each state, schools were drawn from multiple school districts (range = 3-10). Schools were fairly evenly distributed with respect to community location (defined by the U.S. Department of Education), with 21 (39%) suburban, 20 (37%) rural, and 13 (24%) urban. The total number of students attending each high school ranged from 482 to 3,141 (M = 1,349; SD = 672). The size of the schools varied, with 3 smaller than 500 students, 16 with 501 to 1,000 students, 11 with 1,001 to 1,500 students, 16 with 1,501 to 2,000 students, 3 with 2,001 to 2,500 students, 3 with 2,501 to 3,000 students, and 2 with over 3,000 students. A mean of 31.66% (SD = 28.64%) of the total school population was non-white (range = 1.56% - 93.42% per school) and a mean of 38.54%(SD = 19.51%) was low SES (range = 7%-75% per school). After schools were identified for participation, they were randomly assigned to either an intervention (n = 27)schools) or wellness (n = 27 schools) condition.

To recruit potential participants for the RCT, school staff members (typically a school counselor, administrator, or special education teacher) were asked to nominate at least 25 students who met the following participation criteria: (a) would be attending 9th–11th grade during Year 1 of the study (i.e., 2011–2012 academic year) and (b) exhibited serious social, emotional, and/or behavioral problems (no guidelines were provided regarding presence or type of disability label). CARS staff then met with interested parent(s) and their adolescent to secure parental consent and student assent for participation. A total of 857 families/students agreed to screening.

Students were screened to assure significant social, emotional, or behavioral impairment, indicated by (a) a t-score of 60 or higher on either the internalizing or externalizing composites of the Behavior Assessment System for Children, Second Edition-Teacher or Parent Version (BASC-2; C. R. Reynolds & Kamphaus, 2004), indicating "at-risk" status, (b) a t-score of 60 or higher on the Mutidimensional Anxiety Scale for Children (MASC; March, 1998), which is one standard deviation above the mean and indicates above average anxiety symptoms, or (c) a t-score of 60 or higher on the Reynolds Adolescent Depression Scale, Second Edition (RADS-2; W. M. Reynolds, 2002), which is one standard deviation above the mean and indicates symptoms of depression. Furthermore, to assure students had ongoing and significant behavioral challenges that interfered with their school function, rather than transient behavioral concerns, screening was conducted to verify significant school impairment. Screening was determined based on indicators of dropout (e.g., Kern et al., 2020). To be eligible, students needed to demonstrate any two of the following: (a) four or more office discipline referrals/behavioral infractions across the semester prior to enrollment or five or more in any month of the current semester, (b) five or more absences (other than illness) or tardies to class in any month of the current or previous semester, (c) two or more in- or out-of-school suspensions in the current academic year, or (d) at least one Fs or two Ds in any core academic subject in one of two most recent grading periods. Previous semester performance was considered because screening began during the summer.

Students with autism spectrum disorder (ASD) were excluded. In addition, students with an intelligence quotient (IQ) score below 75 were also excluded to assure understanding of concepts in some of the interventions (e.g., cognitive behavior therapy). Finally, students had to have at least one parent/guardian who could speak English fluently to complete assessments.

A total of 647 participants met eligibility criteria and families consented to participate. The sample was 66.50% male (n = 430) and 33.50% female (n = 217). The majority of participants (n = 531) were enrolled in 9th or 10th grade at the start of the study. Of the total sample, 49% (n = 317) had a special education label, while the remaining 51% of students (n = 330) had no label (although may have had a 504 plan). Across the sample, 24% (n = 156) was classified as SLD, 12% (n = 80) as EBD, 9% (n = 60) as OHI, and 3% as not available/other. For the purpose of this study, participants from the "other" category were excluded because demographic information was unavailable or they had labels other than SLD, OHI, or EBD (e.g., Traumatic Brain Injury [TBI]), making the final sample 626. Table 1 displays the demographic characteristics of the sample.

Measures

Behavior Assessment System for Children, Second Edition (BASC-2). The BASC-2 is a broad assessment of a child's emotional and behavioral functioning. A parent/legal guardian completed the Parent rating form (150 items) (C. R. Reynolds & Kamphaus, 2004). Behaviors are rated on a 4-point scale: 1 (*never*), 2 (*sometimes*), 3 (*often*), and 4 (*almost always*). The standard scores of the Externalizing and Internalizing Problems composites from the parent report form were used as a measure of the students' behavior outcomes. For the Self-Report adolescent version (176 items), adolescents rate themselves on *true/false* items in addition to the 4-point scale. Standard scores from the Internalizing Problems composite (anxiety, locus of control, and atypicality), completed by students, were used as a self-report of internalizing periodems to the scores of 50 represent an average score with

Table 1. Demographic Characteristics of Sample Participants.

Characteristic	Total sample		SLD		EBD		ОНІ		No label	
	n	%	n	%	n	%	n	%	n	%
Total sample	626	100	156	24.9	80	12.8	60	9.6	330	52.7
Gender										
Male	417	66.6	106	67.9	62	77.5	44	73.3	205	62.I
Female	209	33.4	50	32.1	18	22.5	16	26.7	125	37.9
Ethnicity										
White	326	52.I	78	50.0	51	63.8	32	53.3	165	50.0
Non-white	300	47.9	78	50.0	29	36.2	28	46.7	165	50.0
Family income										
Free/reduced-price lunch	429	68.5	108	69.2	46	57.5	41	68.3	234	70.9
No free/reduced-price lunch	174	27.8	38	24.4	34	42.5	16	26.7	86	26.1
Not reported	23	3.7	10	6.4	_		3	5.0	10	3.0
Parent outside the home										
Mother	85	13.6	19	12.2	16	20.0	4	6.7	46	13.9
Father	342	54.6	77	49.3	40	50.0	38	63.3	187	56.7
Not reported	199	31.8	60	38.5	24	30.0	18	30.0	97	29.4

Note. SLD = specific learning disability; EBD = Emotional and Behavioral Disorders; OHI = other health impairment.

higher scores indicating greater levels of problem behavior. *T*-scores of 60 or above generally indicate students are "atrisk" for developing clinically significant problems while *T*-scores of 70 or above indicate clinical significance. The assessment is suitable and normed for high school students. The BASC-2 has good psychometric properties with internal consistency ranging from .80 to .90, test–retest reliability of .82 across age ranges, long-term stability of .69 and convergent validity at r = .81.

Multidimensional Anxiety Scale for Children (MASC). The MASC is a 39-item self-report assessment of anxiety-related symptoms in youth 8–18 (March, 1998). It assesses a broad range of emotional, physical, cognitive, and behavioral symptoms that represent dimensions of childhood anxiety. The scale provides four main scores for Social Anxiety, Separation Anxiety, Harm Avoidance, and Physical Symptoms, as well as a total score. Students rate their own behavior on a 4-point Likert-type scale: 0 (*never true about me*), 1 (*rarely true about me*), 2 (*sometimes true about me*), and 3 (*often true about me*). *T*-scores of 65 or above generally indicate level of symptoms associate with clinical anxiety. The measure has good psychometric properties with alpha coefficients ranging from .87 to .89 and test–retest reliability from .73 to .89 (March et al., 1999; Thaler et al., 2010).

Reynolds Adolescent Depression Scale, Second Edition (RADS-2). The purpose of this 30-item self-report assessment is to identify depressive symptoms in adolescents ranging in age from 11 to 20 years (W. M. Reynolds, 2002). It measures the four basic dimensions of depression: Dysphoric Mood, Negative Affect, Negative Self-Evaluation, and Somatic Complaints. Students choose response options arranged on a 4-point Likert-type scale: 1 (*almost never*), 2 (*hardly ever*), 3 (*sometimes*), and 4 (*most of the time*). The RADS-2 standard scores provide an indication of the clinical severity of an individual's depressive symptoms. *T*-scores of 60 or above indicate level of symptoms associated with clinical depression. The scale is widely used and has good reported overall psychometric properties with internal consistency ranging from .92 to .94 and test–retest reliability at .89 (W. M. Reynolds, 2002).

Woodcock Johnson Tests of Achievement, Third Edition (WJ-III). The WJ-III is a battery of tests to assess student achievement in reading, writing, and mathematics (Woodcock et al., 2001). The Broad Reading Standard Score (i.e., Letter-Word Identification, Reading Fluency, Passage Comprehension subtests), and the Broad Math Standard Score (i.e., Calculation, Math Fluency, and Applied Problems subtests) were used to measure student academic achievement. Overall, the WJ-III has strong psychometric properties and is widely used, with an internal consistency reliability of .94 for the Broad Reading cluster and .95 for the Broad Math cluster. In terms of validity, the Broad Reading and Broad Math clusters correlate moderately with academic skills measured by the Wechsler Individual Achievement Test (Reading, r = .76; Math, .66) and with Kaufman's Test of Educational Achievement, Second Edition (Reading, r = .67; Math, r = .70).

Services Assessment for Children and Adolescents (adapted)— Teacher interviews. Portions of the Services Assessment for Children and Adolescents (SACA; Hoagwood et al., 2000) were used to collect data on services received in school. A school staff member who knew the student best, such as the individual education program (IEP) case manager, the school counselor, or the school psychologist, provided quantitative and qualitative information on the schoolbased services received (i.e., individual or group counseling, after-school tutoring, daily report cards, FBA, and support in general education classroom). No definitions were provided for these services. The surveys recorded the type, frequency, duration, and effectiveness of services and supports provided. These data were reviewed by grant facilitators who were responsible for monitoring all services for students in the project, including those provided by CARS. Although psychometrics are not available for teachers as respondents, research has indicated high concordance (kappas .50–1.0) among parent reporters and medical records (Hoagwood et al., 2000) and adequate test-retest reliability for parent report (kappas .82-.94; Hoagwood et al., 2004).

Discipline data. Data regarding the types and frequency of disciplinary procedures received by each student were gathered periodically throughout each year of the RCT. Specifically, the frequencies of ODRs, detentions, ISS, and OSS were documented based on either report card or school electronic data for each participant at least once per semester. Data from the first year of the RCT (2011–2012 academic year) were used for this study.

Demographic data. Parents completed a demographic questionnaire about their child and family prior to the start of the RCT. Demographic data analyzed in this study were gender (male and female), SES (free/reduced lunch), ethnicity (white/non-white), and parent living status (instance of a biological mother or father living outside the home).

Procedures

Assessments were administered at several time points throughout the CARS RCT for students randomized to both the treatment and wellness conditions. All assessments were individually administered to students by trained project staff, either in the home or at school. Teachers completed the SACA independently. All assessments were completed using teleforms that were sent to the Texas Institute for Measurement, Evaluation, and Statistics (TIMES) at the University of Houston for entry, storage, and analysis. For this study, data from selected measures administered during the baseline phase were used, with the exception of the SACA, which was obtained at the end of the first school year of the study.

Data Analysis

The first research question asked how participants with special education labels differed from each other and Behavioral Disorders 47(4)

academic and behavioral problems. To address this question, a multivariate analysis of variance (MANOVA) was conducted comparing the independent variable, label group (EBD, OHI, LD, and No Label) across various measures of academic and behavioral functioning. The dependent variables in this analysis were scores from the Parent BASC-2 (internalizing and externalizing subscales), Student BASC-2 (internalizing subscale), MASC, RADS-2, and WJ-III (Broad Reading and Broad Math subscales).

The second research question asked how high school students with special education labels differ from each other and from students with no labels in type and amount of school-based services received. A MANOVA was also conducted to answer this question, comparing the four label groups. The dependent variables in this analysis were data from the SACA regarding the type of services that students received (i.e., individual or group counseling, after-school tutoring, daily report cards, FBA, and support in the general education classroom).

The third research question investigated how the type and rates of school discipline imposed on students with emotional and/or behavioral impairment differ among high school students with special education labels and those without labels. Similar to the first and second questions, a MANOVA was conducted comparing the four label groups. The dependent variables in this analysis were the annual frequencies of ODRs, detentions, ISS, and OSS for each student over the course of the one academic year.

For the first three research questions, univariate analyses of variance (ANOVA) were conducted as follow-up tests to significant MANOVAs. Statistically significant ANOVAs were then interpreted through Tukey HSD post hoc pairwise comparisons. In addition, G*Power3 software (Faul et al., 2007) was used in order to conduct a power analysis. According to this software, a minimum sample size of 164 participants (41 per group) would be necessary in order to conduct a MANOVA for statistical analysis assuming power of .80 and an alpha level of .05. As the smallest subgroup included 60 students, the current sample was more than sufficient.

The fourth research question examined whether selected demographic characteristics of high school age students identified as having emotional and behavioral problems could predict the receipt and type of special education label. Multinomial logistic regression was used to determine whether gender, SES, ethnicity, and parent living status predicted special education label receipt and type.

Results

Prior to conducting analyses, the data were evaluated with regard to meeting the statistical assumption of multivariate normality necessary for MANOVA. Univariate normality was established with skewness and kurtosis values for the

	SLD (n = 156)	EBD (n = 80)	OHI (n = 60)	No label (<i>n</i> = 317)	df	F
Measures	M (SD)	M (SD)	M (SD)	M (SD)		
Standardized measures						
Student BASC-2, Int.	54.19 (11.19)	54.96 (12.34)	56.04 (12.93)	55.71 (12.59)	3	.40
Parent BASC-2, Int.	62.21 (14.67)	64.50 (14.54)	61.89 (15.52)	60.24 (13.94)	3	1.49
Parent BASC-2, Ext.	64.09 (13.56)	68.69 (14.79)	71.15 (16.07)	65.07 (13.83)	3	2.75
MASC	50.10 (9.99)	51.52 (12.08)	46.63 (8.95)	50.99 (11.08)	3	1.50
RADS-2	50.47 (8.99)	52.56 (11.15)	50.33 (10.47)	52.13 (10.17)	3	.93
WJ-III, Reading	80.59 (10.35)	91.30 (11.73)	91.70 (11.37)	93.36 (11.40)	3	30.61**
WJ-III, Math	73.69 (11.02)	82.72 (11.98)	81.74 (11.12)	83.73 (10.42)	3	20.44**
Annual behavior incidents						
ODR	6.78 (8.49)	10.81 (11.32)	8.90 (12.36)	6.81 (8.28)	3	3.33*
Detention	2.65 (5.83)	2.26 (4.23)	2.86 (5.73)	1.76 (3.86)	3	1.37
ISS	2.25 (3.34)	4.30 (7.02)	2.98 (4.83)	2.31 (3.47)	3	3.76*
OSS	3.37 (7.45)	5.25 (7.99)	2.50 (4.05)	4.41 (8.04)	3	1.67

Table 2. Means, Standard Deviations, and MANOVA Results for Academic and Behavioral Measures.

Note. MANOVA = multivariate analysis of variance; SLD = specific learning disability; EBD = emotional and behavioral disorders; OHI = other health impairment; BASC-2 = Behavior Assessment System for Children, Second Edition–Teacher or Parent Version; MASC = Mutidimensional Anxiety Scale for Children; RADS-2 = Reynolds Adolescent Depression Scale, Second Edition; WJ-III = Woodcock Johnson Tests of Achievement, Third Edition; ODR = office discipline referrals; ISS = in-school suspension; OSS = out-of-school suspension. *p < .05. **p < .001.

dependent variables that were within acceptable ranges for normality (between -2 and +2; Lomax, 2001). Normal probability plots for the dependent measures showed a relatively straight line, indicating no substantial departures from normality. Bivariate normality was assessed by examining scatterplots of the dependent variable pairs that generally showed the expected elliptical pattern (Stevens, 2009). Based on the univariate and bivariate normality evidence, the assumption of multivariate normality necessary for MANOVA was assumed to have been satisfied.

The first research question compared functioning on standardized measures across the four label groups (EBD, OHI, LD, and No Label). Table 2 displays the means, standard deviations, and significance test results of the standardized measures within each label group. Significant differences were found among the four label groups on the dependent measures, Wilks' Lambda = .746, F(21, 1169)= 5.99, p < .001. Seven ANOVAs were conducted (one for each dependent variable) as follow-up tests to the significant MANOVA. The ANOVAs demonstrated that there were significant differences in standard scores between groups on measures of academic achievement only in the areas of WJ-III Broad Reading, F(3, 413) = 30.61, p <.001, and WJ-III Broad Math, F(3, 413) = 20.44, p < .001. There were no significant differences between groups on measures of emotional or behavioral functioning. Tukey post hoc pairwise comparisons were conducted for the two dependent measures with significant ANOVAs to determine which groups exhibited statistically significant differences in reading and math impairment. On both, the WJ-III Broad Reading and Broad Math clusters, students labeled as SLD scored significantly lower than students in all other groups (EBD, OHI, and No Label; p < .001). No significant differences in functioning were found between any of the other groups.

The second research question examined utilization of school-based services across label groups. Table 3 displays the frequency and significance test results for each service that was examined across the four label groups. The most frequent service provided to students with EBD was support in the general education classroom; however, only 45% of students received this service. Overall, students infrequently received services; support in general education classroom was provided to 21% of students, followed by counseling (16% of students), tutoring and functional behavioral assessment (13% of students), and a daily report card (7% of students). Results from this MANOVA demonstrated a significant multivariate effect, Wilks' Lambda = .794, F(15, 1, 192) = 6.92, p < .001. Five ANOVAs were examined (one for each dependent variable) as follow-up tests to the significant MANOVA. Univariate results for this relationship demonstrated significant differences among the four label groups in the provision counseling services, F(3,(436) = 4.70, p = .003, FBA, F(3, 436) = 12.60, p < .001and support in the general education setting, F(3, 436) =20.95, p < .001. Tukey post hoc pairwise comparisons were conducted for the three dependent measures with significant ANOVAs to determine how label groups were differentially provided services. Students identified as EBD received significantly more counseling services (SLD, p =.009; OHI, p = .027; No Label, p = .002) and FBAs (SLD, p = .042; OHI, p = .008; No Label, p < .001) compared to

	Total ($n = 440$)	SLD (n = 121)	EBD (n = 53)	OHI (n = 56)	No label (<i>n</i> = 210)		
Service	n (%)	n (%)	n (%)	n (%)	n (%)	df	F
Counseling	72 (16%)	18 (15%)	18 (34%)	8 (14%)	28 (13%)	3	4.70*
Daily report card	30 (7%)	9 (7%)	7 (13%)	4 (7%)	10 (5%)	3	1.63
FBA	55 (13%)	22 (18%)	17 (32%)	7 (13%)	9 (4%)	3	12.60**
Support in general education	93 (21%)	38 (31%)	24 (45%)	17 (30%)	14 (7%)	3	20.95**
Tutoring	58 (13%)	15 (12%)	7 (13%)	7 (13%)	29 (14%)	3	.05

Table 3. Frequency and MANOVA Results for School-based Services Received by Label Groups.

Note. MANOVA = multivariate analysis of variance; SLD = specific learning disability; EBD = Emotional and Behavioral Disorders; OHI = other health impairment; FBA = functional behavioral assessment.

*p < .05. **p < .001.

students in all other label groups. In addition, post hoc results demonstrated that students identified with SLD were significantly more likely to receive an FBA than students with no special education label (p = .001). Finally, students who did not have a special education label received significantly less support in the general education setting than all other groups of students (p < .001).

The third research question investigated the frequency of four types of school discipline across the four label groups. Table 2 displays the means, standard deviations, and significance test results for the annual rates of each type of disciplinary action across the four groups. A significant multivariate effect was found, indicating differences among the four label groups on the dependent measures, Wilks' Lambda = .947, F(12, 1199) = 2.09, p = .015. A univariate ANOVA was conducted for each of the four types of school disciplinary actions as follow-up tests to the significant MANOVA. The univariate tests resulted in significant differences between groups in the frequency of ODRs, F(3,(456) = 3.33, p = .020, and days of ISS received annually, F(3, 456) = 3.76, p = .011. No significant differences were found in the annual frequency of detentions or OSS across the label groups. Tukey post hoc pairwise comparisons were conducted for the two dependent measures with significant ANOVAs to determine how the label groups differed in the frequency of ODRs and ISS. Students in the EBD group received significantly higher rates ODRs than students in the SLD (p = .040) and No Label (p = .024) groups. Similarly, students in the EBD group also received significantly higher rates of ISS than students in the SLD (p = .014) or No Label (p = .010) groups. No significant differences in the types or frequencies of these disciplinary measures were found between any of the other groups.

The fourth research question examined whether demographic characteristics would predict receipt of a specific special education label. The demographic variables (i.e., gender, SES, ethnicity, and parent living status) accounted for 4% of the variance in the dependent variable (pseudo R^2 = .039). The likelihood ratio tests indicated that none of the following demographic variables could significantly predict the receipt of a special education label in the sample: gender, $\chi^2(3) = 3.53$, p = .317; ethnicity, $\chi^2(3) = 2.86$, p = .414; family income, $\chi^2(3) = 3.25$, p = .355); or a biological parent outside the home, $\chi^2(3) = 4.69$, p = .196). For each of the three special education labels considered (SLD, OHI, and EBD), demographic characteristics were not significantly predictive of group membership as compared to the No Label group (see Table 1).

Discussion

The first research question examined differences in academic and behavioral functioning among high school–age students identified as having emotional and behavioral problems. The only significant differences found between special education labeled (EBD, SLD, and OHI) and nonlabeled students on measures of academic achievement and socioemotional functioning were significantly lower scores on tests of academic achievement for students labeled with SLD.

What is particularly salient is that the data indicated no significant differences between groups with respect parent or self-reported emotional and behavioral functioning, regardless of special education status or label type. One explanation that partially may explain this outcome is the inclusion criteria for emotional and behavioral problems used in this study. In addition, it is possible that for some participants, emotional and behavioral symptoms did not adversely affect academic performance, and school staff strictly adhered to this aspect of the IDEA criteria for EBD. Nonetheless, the data provide empirical support that a large number of students with significant problems have not received a disability label. The findings provide empirical support for Mattison's (2015) claim of a lack of differentiation in the emotional and behavioral problems among different label groups and support concerns with ambiguity of the EBD label (Hanchon & Allen, 2013). Most importantly, the findings indicate there are indeed high school students with significant emotional and behavioral needs who are not identified as EBD and therefore not legally guaranteed services.

The second research question examined school-based services. Despite demonstrating similar emotional and behavioral functioning, results showed a clear discrepancy between label groups in the type and amount of schoolbased services received. Specifically, students without a disability label received significantly fewer school-based services, suggesting that service provision may be related to special education status rather than student need. Although it is problematic that nonlabeled students may not be receiving sufficient services to resolve their emotional and behavioral problems, these data also suggest that, at least for this sample, classification under IDEA is associated with increased services, as the law intended. At the same time, the low overall rate of services received by all disability groups suggests that services are most likely insufficient to address students' needs.

One caveat in evaluating school-based services provided to students without disabilities is that particular services, such as FBA, are legally required for students with disabilities under certain circumstances. However, conducting an FBA is considered best practice for students with significant behavior concerns, regardless of the presence of a label. Furthermore, the fact that an FBA was conducted with only 32% of high school students with an EBD label, and far fewer with OHI and SLD labels, indicates even this current best practice is not being regularly employed. Overall, the findings indicate the need to expand services for students with disabilities and to increase school-based services for students with emotional and behavioral problems who may not meet disability eligibility criteria. This is particularly important because research indicates that among students who receive mental health services, 80% are obtained at school (Langer et al., 2015; Merikangas et al., 2011).

An additional purpose of this study was to determine whether rates of discipline differ depending on special education label or status. The results demonstrated that students in the EBD group received a significantly greater number of ODRs and days of ISS than students with SLD or No Label. These findings are inconsistent with the standardized assessment data indicating no significant differences in emotional and behavioral problems and appear to be commensurate with the existing research suggesting that labels (particularly EBD) may actually lead to stigmatization, as opposed to generating awareness regarding student needs (Clement et al., 2015). In addition, these results provide further evidence of the disproportionality in particular types of disciplinary actions, which is biased against students with (EBD Mitchell et al., 2019; Whitford et al., 2016). These findings are particularly concerning given that Skiba et al. (2011) provided evidence that separation from typical peers and the educational environment can have negative long-term outcomes. Punitive consequences, especially exclusionary types of discipline, must

be replaced with preventive and instructional interventions that are more likely to promote positive behavior and increase school engagement.

A final purpose of this study was to examine predictors of receiving a special education label. Among our sample, none of the variables examined (gender, SES, ethnicity, and parent marital status) predicted receipt of the EBD label. This is inconsistent with previous research indicating students who are male, African American, low SES, or from one-parent homes are significantly more likely to receive an EBD label (Wagner et al., 2005a). One possible reason for this is the stringent criteria required for eligibility in the CARS RCT, which ensured that all participants did in fact have serious emotional or behavioral problems that resulted in school impairment. That is, it is possible that even if certain groups of students were disproportionately referred to the RCT, the screening and eligibility process accounted for referral bias. Continued research on disproportionality, along with further examination of the flaws in our current identification procedures, are needed.

Limitations

Several limitations warrant discussion. First, because this was a referred sample, findings do not necessarily represent all secondary students with emotional and behavioral needs. Also, due to sample size and power, we were unable to disaggregate demographic data on racial identity beyond classification as White or non-White. Therefore, racial differences could not be fully examined. Also, this study investigated primary special education labels. Findings may have differed had analyses been conducted for students who had secondary labels. Furthermore, this study did not examine functioning at the time that students were identified as being eligible for special education services. It is possible that functioning was different for identified students at the time of initial eligibility (i.e., they had greater impairment) and that they may have received support and interventions that improved academic and behavioral functioning over time, whereas unidentified students did not. In addition, it is possible that students received school-based services other than those included on the assessment in this study. Thus, conclusions about services are limited to only those evaluated in this analysis. Finally, information about school-based services was obtained from educators. We intended to use parents as informants but interviews conducted at the start of the study revealed that they had little information about services their children received at school. Although we identified teachers or case managers who should have been knowledgeable regarding services the participants received, educator reports were not verified and could be subject to error.

Implications for Future Research and Practice

The results of this study have implications for schoolbased services for students with emotional and behavioral problems, regardless of label. Underidentification, misidentification, and delayed identification can all have deleterious effects on students with disabilities as early intervention can reduce the sequelea of challenges that follow (Forness et al., 2012a). As our data indicate, there are many adolescents without special education labels who exhibit symptoms similar to students with labels, but are not guaranteed services by IDEA. Further research is needed to examine whether other differences exist between these two groups that might account for the receipt of a special education label. For example, it is possible that duration of emotional and behavioral problems or the onset of problems may differentiate the two groups. It is also possible that teacher ratings among the two groups might differ; however, it may be difficult to parcel out whether differences are a result of teacher bias due to the disability label (e.g., Allday et al., 2011; Ohan et al., 2011) or actual differences in behavior.

It is also interesting that students' self-ratings fell in the average range on all measures. This is in contrast to parent ratings, which fell into the high or clinically significant range for both internalizing and externalizing problems. Although we were unable to locate recent research, past studies have indicated that student and parent ratings differ. For example, Mullen and Wood (1986) found that middle school students and teachers significantly differed on their ratings of the "disturbingness" of 32 among 55 problem behaviors, with teachers rating 27 as more disturbing than students. In contrast, Sacks and Kern (2008) found that parents of students with EBD rated their children's quality of life significantly lower than did the adolescents. Additional research is warranted to ascertain the nature of behaviors in which adult ratings differ from youth ratings, variables that might affect those ratings, and whether an intervention goal of changing adult or youth perceptions is appropriate.

In addition, as our data show, remarkably few students received the school-based services we examined. This was the case regardless of label. The documented poor outcomes among students with EBD (Bradley et al., 2008) support the need to identify evidence-based supports and assure students receive those services. These data again underscore the need for comprehensive school-based services that are available to all students. Unfortunately, at the current time, there is a lack of mandated preventive interventions for students at risk for EBD that could be used prior to special education identification (Zirkel & Thomas, 2010). Mandated preventive measures could reduce symptoms among general education students who may not meet criteria for EBD. One option

is multitiered systems of support (MTSS) that emphasize prevention and responsiveness to intervention, rather than relying on special education label alone for service delivery. For example, the School-Wide Positive Behavior Support (SWPBS) framework creates a continuum of supports that emphasize (a) prevention, (b) early intervention, (c) databased decision-making, and (d) capacity building within and across schools (Lewis et al., 2010). These types of multitiered systems are resource-efficient, foster collaborative efforts between general and special education communities, assist teachers by offering a comprehensive system, and promote equal access to needed supports for all students (Lane et al., 2013).

Conclusion

Our study indicates that many secondary age students experience significant symptoms of emotional and behavioral problems, yet are not entitled to support under IDEA. Furthermore, our findings indicate that although students who are not labeled receive significantly less support than labeled students, services appear to be inadequate for all students. Our results also underscore the need for alternative identification procedures to assure broad child find in a nonbiased manner.

Declaration of Conflicting Interests

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