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Sandra Harris
sandra.harris@mail.waldenu.edu

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Teacher and Student Demographic Variables Which Predict Teacher Referrals of Males for Special Education Evaluation

Lorenzo Woodson and Sandra M. Harris

Abstract: Past research has shown that African American/Black males are referred for special education evaluation at disproportionately higher rates compared to males of other racial/ethnic groups. Special education placement for African American/Black males has been linked to adverse outcomes such as lower teacher expectations, low academic performance, and increased likelihood of dropping out of school. This study addressed the question of whether student and teacher demographic variables predicted how likely a teacher would refer male students for special education evaluation and whether there were significant differences in teacher ratings of severity of behavior based on race/ethnicity of male students. Principles from cultural theory and social exclusion theory were used as the conceptual framework to guide this research. Results from a multiple linear regression revealed that teacher years of teaching experience, race of teacher, race of student, and teacher attitude toward inclusion were statistically significant predictors of teacher referral to special education. However, results from an ANOVA did not show any significant differences in teacher ratings for severity of described classroom behavior based on male students' race/ethnicity. Findings from this study could be used to advocate for educational and professional development programs which promote teacher awareness of how teacher and student demographics may influence teachers' decisions to issue referrals to special education. The educational training and professional development seminars could also guide teachers in developing culturally sensitive and responsive practices for teaching students of various cultural backgrounds that, in turn, could promote social change by reducing the number of referrals for special education evaluation among African American/Black male students.

African American/Black male students are disproportionately represented in special education (Vincent, Sprague, & Tobin, 2012; Zhang, Katsiyannis, Ju, & Roberts, 2014). Disproportionality is defined as a situation whereby a group of individuals is represented in an environment at a percentage that is higher or lower than representation within a total population (Alexander, 2010). Many students in the United States are labeled and subsequently socially excluded from the mainstream learning process because of subjective behavioral assessments from their teachers (Codrington & Fairchild, 2012; Raines, Dever, Kamphaus, & Roach, 2012). Ünal and Ünal (2009) contend that teachers customarily refer students for special education evaluation as a method of handling behavior they consider disruptive to the learning process. Special education evaluations and placements are problematic because they place students at risk for adverse outcomes such as dropping out of high school, decreased likelihood of attending college, and higher rates of incarceration (Kearney, 2011).

Several researchers have documented bivariate relationships between student variables such as race and gender with teacher referrals to special education evaluation. Eiland (2009) reported that male students were referred for special education evaluation at slightly higher rates than female students and that African American/Black males were referred at higher rates than students of other races. Codrington and Fairchild (2012) noted that African American/Black students were frequently misdiagnosed and referred to special education because of general classroom behaviors that teachers considered

disruptive. Other researchers have noted that African American/Black students were at greater odds for teacher office disciplinary referrals than students of other racial groups, which frequently lead to special education evaluations (Bradshaw, Mitchell, O' Brennan, & Leaf, 2010; Codrington & Fairchild, 2012; Zhang et al., 2014).

Several teacher-related variables such as gender, race, teaching experience, and attitudes toward inclusion have been linked to teacher referrals to special education. Findings from several studies have linked gender of teacher to referrals for special education evaluation (Alter, Walker, & Landers, 2015; Elhoweris, Efthymiou, & Haq, 2015). Elhoweris et al. (2015) reported that female teachers were more likely than male teachers to refer students to special education. Bradshaw et al. (2010) also noted that female teachers were more likely to refer male students for office disciplinary referrals because of problematic classroom behavior. In addition, teaching experience has also been linked to teacher referrals to special education. Eiland (2009) found that teachers with more teaching experience were more likely to refer male students for special education services. Codrington and Fairchild (2012) further noted that African American/Black students were frequently referred to special education because general education teachers were inexperienced in working with African American/Black children.

Data from a number of studies have linked teacher attitude toward inclusion with teacher referrals to special education evaluation (Anderson, Watt, Noble, & Shanley, 2012; Dallas, Sprong, & Upton, 2014; Swain, Nordness, & Leader-Janssen, 2012). Crowson and Brandes (2013) found

that preservice teachers were less motivated to work with students whom they perceived to have disabilities or behavioral problems. Crowson and Brandes' (2013) findings may be particularly relevant to African American/Black males whose classroom behavior is frequently perceived as being problematic. Haq and Mundia (2012) examined preservice teachers' perceptions toward inclusion and students with special needs. Results showed that teachers conveyed positive attitudes toward inclusion, but they displayed negative feelings toward specific disabilities such as cognitive disorders and multiple disabilities. Dallas et al. (2014) examined teacher perceptions toward students with disabilities and teacher actions related to academic accommodations. Findings revealed that over 85% of respondents were certain of their ability to accommodate students with special needs.

Much of the past literature has examined the bivariate relationships between variables related to the disproportionate referral of students belonging to minority groups, particularly African American/Black males, for special education evaluation (Ellmer, 2010). However, there has been limited research examining how student and teacher demographic variables combine to predict teachers' decisions to refer students for special education. We did not locate any studies that examined differences in teacher ratings regarding the severity of classroom behaviors based on the students' race/ethnicity. The purpose of this study was to investigate the predictive relationships between the independent variables (race/ethnicity of the student, teacher gender, teacher race/ethnicity, and teacher attitudes toward inclusion) and how likely a teacher would refer a male student for special education evaluation.

Conceptual Framework

Principles from cultural theory and social exclusion theory formed the conceptual framework for this study. Cultural theory was first introduced by Douglas (1978) to explain how people form perceptions of risk. Current conceptualizations of cultural theory posit that individuals form perceptions of their world experiences that are consistent with the broad systems of attitudes and beliefs that reflect their cultural way of life (Kahan, 2012). The worldviews held by members of various groups frequently lead to cultural biases, which cause the group members to judge others based on the adopted cultural biases. Therefore, the major premise of the cultural theory is relevant for explaining how cultural beliefs may influence teacher perceptions of student behavior in the classroom, which in turn may affect teachers' decisions to refer children for evaluations for special education.

The premises of social exclusion also contributed to the conceptual framework for this study because social exclusion explains the persistent social challenges that occur when groups of people in a society are subjected to artificially imposed and enforced barriers (Kastanakis & Voyer, 2014). Social exclusion is an endemic human social problem that is based on power and control, which results in the marginalization and exclusion of groups of people from social opportunities (World Health Organization

[WHO], 2015). Social exclusion is a phenomenon that is frequently observed in the United States educational system (Kastanakis & Voyer, 2014) and is linked to male children being referred for special education evaluation and placement (Kearney, 2011). Children who are placed in special education settings often do not complete high school, do not pursue postsecondary level education, and tend to have higher rates of incarceration (Kearney, 2011). According to Codrington and Fairchild (2012), teachers are inextricably connected to social exclusion because they typically make the initial referrals for special education evaluation. Therefore, social exclusion theory is relevant for this study because it addresses outcomes for students who are inappropriately referred for special education evaluation and placement.

Methods

This study was predicated upon a quantitative, correlational, survey research design. In a quantitative study, researchers collect numerical data and use statistical tests to quantify outcomes for answers to specific research questions (Cokely & Awad, 2013; Mertens, 2013). A quantitative research design was used for this study because it is objective and more reliable than a qualitative method (Cokley & Awad, 2013). The correlational research design is used to determine whether relationships exist between variables (Mertens, 2013; Trochim, 2006). Surveys are an effective method of collecting data from a sample of individuals with the intent of generalizing the results to a larger population (Trochim, 2006). Therefore, a quantitative correlational research design was used for this study because such a design provided an objective method for gathering quantitative data to assess the degree to which the teacher and student demographic variables predicted teacher referrals of students for special education evaluation.

Participants

This study was conducted in the northeastern region of the United States in Pennsylvania. Participants were recruited from a large urban school district, which consisted of 56 accredited high schools. The data revealed that the selected school's student body consisted of 59% African American, 18% Hispanic, 14% White/Caucasian, and approximately 9% other. There was no documentation available regarding teachers' gender or teachers' race/ethnicity for the targeted school; however, data from the Albert Shanker Institute (2015) revealed that 69% of the Philadelphia school district teaching force was White, 25% African American, and 3% Hispanic. The teacher population of the targeted school exceeded 100 teachers, and the student population exceeded 1,000. At the time of data collection, the student population by race/ethnicity of the targeted school was 30.3% African American, 23.2% Latino, 18.5% Caucasian, and 28.1% from other racial backgrounds.

Participants were recruited through a convenience sampling process, which is a strategy of recruiting participants from a sample of people with desired characteristics who are easy to access (Trochim, 2006). The a priori sample size for determination for multiple linear regression was

based on the following guidelines: medium effect size (f^2) of .20, power set at .80, and $\alpha = .05$ (Stevens, 2009). Results from a G-power analysis showed the minimum sample size for achieving adequate power to detect any statistically significant differences for this study using these parameters was $N = 65$.

Procedures

Approval to conduct this study was granted by Walden University as part of a doctoral dissertation (IRB Approval #18-17-0289856). Permission to conduct the study was also obtained from the research and evaluation department of the school district as well as from the administrator for the high school. The school administrator granted permission for the researchers to announce the study during the last 30 mins of a scheduled teacher in-service training. During the allotted time, one researcher attended the training to announce the study and to distribute survey packets. The survey packets included the informed consent, the Teacher Rating Form (TRF) survey, and the demographic questionnaire. The researcher described the purpose of the study and explained the documents in the survey packets. After describing the study and reviewing the informed consent document, the researcher asked participants if there were any questions. Participants were then instructed to read and sign the consent form, complete the surveys, and return the completed forms sealed in the same packet/envelope in which they received them. Participants were instructed to place the completed survey packets in a drop box located in the high school teachers' lounge at their leisure. Participants were provided general contact information if they had any questions after their participation.

The survey return rate was slightly over 78%, with 118 of the 150 survey packets being returned. Participants were given \$5.00 for each returned survey packet. Many teachers completed the surveys prior to leaving the scheduled in-service training, and an additional eight survey packets were turned in to the drop box in the teachers' lounge. The instrument took approximately 10 to 15 mins to complete.

Instrumentation

Data were collected using the researcher-developed TRF. The TRF contained behavioral descriptions that were based on behavioral descriptions included in the Achenbach System of Empirically Based Assessments, which is an evidence-based method of evaluating the abilities, strengths, adaptive functioning, behavioral, emotional, and social challenges of individuals from age 1½ to over 18 years of age (Achenbach, 2013). The TRF contained behavioral descriptions for three African American/Black students, three Hispanic students, and three White/Caucasian students. Teachers completed the TRF by reading the descriptions of classroom behaviors for the nine fictitious students and rating how likely they would refer each student for special education evaluation. Teachers also rated the severity of the behavior for each scenario. A sample of items from the TRF can be located in the appendix.

Validity of the TRF was established through *face validity* and *content validity*. A panel of two experts were asked to

judge the *face validity* and *content validity* of the TRF. The term *face validity* implies that an instrument appears to evaluate what is designed to evaluate (Holden, 2010). The experts, who were both licensed school psychologists, were given the scenarios to read. After completing their reviews, the panel of experts indicated the TRF had acceptable face and content validity. Neither expert made suggestions for rewording any of the scenarios.

Reliability of the TRF was assessed using *interrater reliability*, which is an estimate obtained from scores on similar items from different raters (Trochim, 2006). An *interrater reliability index* was computed using the following formula: [(number of times observers agreed in their ratings for each scenario ÷ the total number of scenarios) x 100] (Polit et al., 2007). The experts were asked to read each behavioral scenario and indicate whether they would refer each student by indicating a *yes* or *no*. The *interrater reliability index* showed that the two experts agreed on 89% [(8/9) x 100] of the scenarios, which yielded an interrater reliability of $r = .89$. The two experts were asked to rate the level of severity for disruptive classroom behavior as either *mild*, *moderate*, or *severe*. The experts also agreed on eight of nine scenarios for the severity of the behaviors, yielding an interrater reliability of $r = .89$ for the severity of behavior. Results from the experts indicated that the TRF was a valid and reliable instrument.

Table 1 shows the variables included in this study along with the levels of measurement for each variable. Race/ethnicity and gender were measured as categorical variables. Teacher attitude toward inclusion was measured by asking participants a question on their opinion regarding the inclusion of students with special needs in the mainstream learning environment. Participants responded to the question item using the following response options: 1 = *Strongly Disagree*, 2 = *Somewhat Disagree*, 3 = *Uncertain*, 4 = *Somewhat Agree*, or 5 = *Strongly Agree*.

The dependent variable of how likely a teacher would give special education referral was measured on the following 5-point Likert-type scale: 1 = *Very unlikely to refer*, 2 = *Somewhat unlikely to refer*, 3 = *Uncertain*, 4 = *Somewhat likely to refer*, 5 = *Very likely to refer*. Severity of classroom behavior was also an interval level variable that was measured using the following: 1 = *Mild*, 2 = *Moderate*, and 3 = *Severe*. The covariates for teaching experience were measured on a ratio level. Participants indicated the number of years of experience on a variable by writing a number in on the blank line in the demographic questionnaire.

Results

Before analyzing the data with Statistical Package for the Social Sciences, the surveys were prescreened for missing data, and the assumptions of regression were tested according to suggestions presented by Garson (2012). Missing data are problematic in research because they affect the generalizability of findings, they decrease the amount of usable data in a data set, and they ultimately decrease the power associated with the statistical tests (Mertler & Van-natta, 2005). Predata screening is necessary to minimize statistical errors when performing a quantitative analysis

Table 1

Research Variables and Associated Levels of Measurement

Variable	Level of Measurement
Independent	
Race/Ethnicity of Student	Categorical
Race/Ethnicity of Teacher	Categorical
Gender of the Teacher	Categorical
Teacher Attitude Toward Inclusion	Interval
Dependent	
Likelihood of Referral	Interval
Severity of Behavior	Interval
Covariates	
Years Teaching Special Education	Ratio
Years Teaching General Education	Ratio

(Garson, 2012). The missing data were managed through a frequency count and visual assessment of the data. If a participant failed to respond to 15% or more of the survey items, the participant was thought to have too much missing data (Hertel, 1976). Results from a frequency count of the independent and dependent variables were used to guide a visual scan of the data to check for missing values. The visual scan revealed that most of the missing data occurred for the demographic variables. Results in Table 2 revealed that the number of missing data points on the variables ranged between 16 – 24, depending on the demographic variable. The missing data on those variables were thought to have minimal effect on the statistical analysis. However, eight of 118 returned TRFs were excluded from the subsequent data analysis due to too much missing data. A total of 110 of the 118 surveys were included in the subsequent data analysis.

Several assumptions for multiple linear regression were tested prior to running the statistical analysis. The statistical tests that were used followed guidelines presented by Garson (2012). The specific assumptions and associated tests were as follows: (a) *independence of scores* was verified through using Q-Q plots and the Kolmogorov-Smirnov test, (b) *normality* was assessed using the Shapiro-Wilk test, (c) *linearity* was tested through scatterplots, (d) *multicollinearity* was assessed through bivariate correlations where correlations greater than $r = .80$ were deemed a possible problem with multicollinearity, and (e) *homogeneity of variance or homoscedasticity* was tested using

White's test. Results from the various statistical tests did not reveal any violations of the statistical assumptions.

Table 2 presents a summary of results for the demographic data for the participants. The majority (81.36%) of participants indicated that they were non-Hispanic, and most participants (55.93%) selected the option of White/Caucasian for race. African Americans/Blacks comprised 17.80% of the sample. Most participants indicated they were female (46.62%). The demographic data for teachers at the targeted school were consistent with demographic data reported by the Albert Shanker Institute for the overall school district (2015).

Table 3 shows a summary of the descriptive statistics regarding teaching experience. The participants' teaching experience ranged from less than 1 year to 35 years, with the average being 14 years. The data further revealed that approximately 83.05% of the total number of participants ($n = 118$) reported having training in special education. Approximately 83.90% of the total number of participants reported having teaching experience in special education. Years of training in special education ranged from 0 through 31 years, with an average of 2.62 years. Years of teaching in special education ranged from 0 through 31 years, with an average of 3.12 years.

Teachers' ratings for how likely they would refer for special and severity of behavior for the student scenarios based on race was calculated by adding the ratings for each scenario (a total of 990 ratings) and then dividing by 3. This average represented an aggregate number

based on race of student rather than ratings for individual students. A summary of the results is presented in Table 4. The data revealed that the highest mean ratings for likelihood of referrals for special education were for White males, followed by African American/Black males, and then Hispanic males. The highest mean for ratings for severity of behavior was for Hispanic males, followed by African American/Black males, and then White males. The average ratings were used as the dependent variables in the regression analysis.

The first research question for this study addressed the predictive relationships between the independent and dependent variables as presented below. Multiple linear regression was used to test the null hypothesis. The research question for this study and associated hypotheses are presented below.

RQ1: What is the predictive relationship between student race/ethnicity, teacher gender, teacher race/ethnicity, teacher attitude toward inclusion, and how likely a teacher would refer a student to special education after controlling for teacher experience in general and special education?

H₀1: There is no statistically significant predictive relationship between student race/ethnicity, teacher gender, teacher race/ethnicity, and teacher attitude toward inclusion (measured on a 5-point scale) and how likely a teacher would refer to special education (measured on a 5-point scale) after controlling for teacher experience in general and special education measured in years.

H_a1: There is a statistically significant predictive relationship among student race/ethnicity, teacher gender, teacher race/ethnicity, and teacher attitude toward inclusion (measured on a 5-point scale) and how likely a teacher would refer to special education (measured on a 5-point scale) after controlling for teacher experience in general and special education measured in years.

Table 5 presents a summary of the regression model. Results from the regression ANOVA model generated two regression models, and both were statistically significant, $F_1(831,833) = 3.79$, $MSE = 6.53$, $p = 0.23$; $F_2(827,833) = 4.76$, $MSE = 8.04$, $p = 0.000$. However, the R^2 showed that the variables in Model 1 accounted for only about 1% of variance in the dependent variable. Adding the remaining independent variables in the regression model resulted in a statistically significant change in the F value ($\Delta F = 5.2$, $p = .000$). Including race of student, gender of teacher, race of teacher, teacher attitude toward inclusion accounted for approximately an additional 1.4% of variance in how likely a teacher would refer for special education.

To determine which variables were significant predictors in the equation, we examined the regression model results presented in Table 6. The data indicated that after controlling for years teaching experience and years of teaching experience in special education, the following four variables were significant predictors of how likely a

teacher would refer to special education: years teaching experience ($t = 2.694$, $p = .007$); race of teacher ($t = 2.94$, $p = .003$); race of student ($t = -2.168$, $p = .03$); and teacher attitude toward inclusion ($t = -2.486$, $p = .013$). Therefore, the null hypothesis for the first research question was rejected and the alternate hypothesis was accepted.

Findings from several studies have linked race of student to teacher referrals to special education evaluation. Past research has indicated that African American/Black males are disproportionately referred (Vincent et al., 2012; Zhang et al., 2014). The second research question for this study and associated hypotheses are presented below.

RQ2: What are the differences in teacher ratings regarding the severity of described classroom behaviors based on the students' race/ethnicity?

H₀2: There is no statistically significant differences in teacher ratings of the severity of described classroom behavior of male students based on the student's race/ethnicity.

H_a2: There are statistically significant differences in teacher ratings of the severity of described classroom behavior of male students based on the student's race/ethnicity.

The one-way ANOVA was used to test the null hypothesis for RQ2. The results revealed there were no statistically significant differences $F_1(2,984) = .002$, $MSE = .001$, $p = .998$ in teacher ratings of severity of behavior based on the race of the student. We therefore accepted the null hypothesis for RQ2.

Discussion

The first research question for this study examined the connection between student and teacher variables and how likely a teacher would refer male students for special education evaluation. Results revealed that race of student, race of teacher, years of teaching experience, and teacher attitude toward inclusion significantly predicted teacher referral for special education evaluation. Gender of teacher and years of teaching special education were not significant predictors of how likely a teacher would refer a student for special education evaluation.

Findings from this study supported results from other studies which revealed that student race was a factor which affected teacher referrals to special education evaluation (Bradshaw et al., 2010; Codrington & Fairchild, 2012; Grice, 2013; Zhang et al., 2014). Sullivan and Bal (2013) noted African American/Black students were 2.8 times more likely to be referred for special education than White students. While results from the regression analysis showed race of student was significantly related to teacher referrals to special education, results from the ANOVA and descriptive statistics did not show any statistically significant differences in teacher ratings regarding the severity of behavior based on the race of the student. However, findings from this study contradicted data from Green (2012) which revealed that race of student was not related

Table 2

Summary of Demographic Data for Teachers

Variable	Frequency	Percent of Sample	Cumulative Percent
Ethnicity			
No Response	17	14.41	14.4
Non-Hispanic	96	81.36	95.8
Hispanic/Latino	5	4.24	100.0
Total	118	100.00	
Race			
No Response	24	20.33	20.3
African American	21	17.80	38.1
White/Caucasian	66	55.93	94.1
Other	7	5.93	100.0
Total	118	100.00	
Gender			
No Response	19	16.10	16.10
Male	42	35.59	51.69
Female	55	46.62	100.00
Total	118	100.00	

Table 3

Summary Descriptive Statistics for Teaching Experience

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Years of Teaching Experience	102	1	35	14.00	8.381
Years Training in Special Education	98	0	31	2.62	6.514
Years Teaching in Special Education	99	0	31	3.12	7.260

Table 4

Summary of Descriptive Statistics for Average of Likelihood of Referral and Severity of Behavior Ratings by Ethnicity of Student

	N	Minimum	Maximum	Mean	Std. Deviation
Hispanic Likelihood of Referral	330	1.00	5.00	3.25	0.91
Hispanic Severity of Behavior	327	1.33	3.00	2.09	0.38
White Likelihood of Referral	330	1.67	5.00	3.60	0.86
White Severity of Behavior	327	1.00	3.00	1.76	0.48
African American Likelihood of Referral	327	1.00	5.00	3.38	0.96
African American Severity of Behavior	330	1.33	3.00	2.08	0.42

Table 5

Regression Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics				
					R ² Change	F Change	df1	df2	Sig. F Change
1	.095 ^a	.009	.007	1.313	.009	3.787	2	831	.023
2	.183 ^b	.033	.026	1.300	.024	5.210	4	827	.000

Table 6

Regression Model Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error				Lower Bound	Upper Bound
		Beta						
1	(Constant)	3.22	.09		36.47	.00	3.05	3.60
	Years Teaching general Education	.02	.006	.10	2.694	.03	.00	.03
	Years Teaching Special Education	-.01	.01	-.07	-1.69	.09	-.03	.00
2	(Constant)	3.46	.28		12.45	.00	2.92	4.01
	Years Teaching Experience	.02	.01	.11	2.76	.01	.01	.03
	Years Teaching Special Education	-.01	.01	-.06	-1.59	.11	-.03	.00
	Race of Teacher	.17	.06	.10	2.95	.00	.06	.28
	Gender of Teacher	.02	.09	.01	.24	.81	-.16	.20
	Race of Student	-.12	.06	-.07	-2.17	.03	-.23	-.01
	Teacher Attitude Toward Inclusion	-.10	.04	-.09	-2.48	.01	-.13	-.02

to teacher referral for special education evaluation. The results from this study were also consistent with findings from other studies that showed significant predictive relationships between teacher race/ethnicity and how likely a teacher would make a referral to special education (Alexander, 2010; Bradshaw et al., 2010).

Years of teaching experience have previously been linked to teacher referrals of students to special education evaluation (Eiland, 2009). Data from past research revealed that teachers with limited teaching experience were more likely to refer students with challenging behaviors for special education evaluation than teachers with significant years of teaching experience (Alter et al., 2013). In contrast, data from this study showed a significant, positive relationship between years of teaching experience and how likely a teacher would refer students with challenging behaviors for special education evaluation. Findings from this study also supported research that connected teacher attitude toward inclusion to referrals for special education evaluation (Anderson et al., 2012; Dallas et al., 2014; Swain et al., 2012). Data from a study by Anderson et al. (2012) revealed that in-service teachers conveyed less positive responses about working with children with special needs than did preservice teachers. Results from this study showed an inverse relationship between teacher attitude toward inclusion and teacher referral to special education, which suggests that teachers with positive attitudes toward inclusion were less likely to refer students with problem behaviors for special education evaluation.

Results from this study also contradicted findings from other researchers which showed that gender of teacher was a significant predictor of how likely a teacher would be to refer students for special education evaluation (Alter et al., 2013; Elhoweris et al., 2015). Results from several studies revealed that female teachers were more likely to refer students for special education evaluation for off-task behaviors than male teachers (Alter et al., 2013; Elhoweris et al., 2015). However, findings from this study did not confirm previous results, as the data did not reveal teacher gender as a significant predictor of referrals of males to special education.

The second research question for this study examined whether there were differences in teacher ratings regarding the severity of described classroom behaviors based on the students' race/ethnicity. The ANOVA procedure did not show any statistically significant differences in teacher ratings of classroom behavior based on race of the student. Data from this study were not consistent with findings from past research which connected student race to teacher referrals for special education (Alter et al., 2013; Bradshaw et al., 2010; Vincent et al., 2012).

Premises from social exclusion theory and cultural theory were used as the conceptual framework to guide this research. Findings from this research both confirmed and failed to confirm past research that has used the premises of these theories to ground the research. The major premise of social exclusion theory posits that social exclusion is a prevalent social condition that exposes groups of people to social hindrances caused by individual bias and prejudice

(Kastanakis & Voyer, 2014). Social exclusion relegates and discounts groups of people from opportunities for advancement (WHO, 2015). Results from previous literature could be used to conclude that social exclusion through special education placement occurred at disproportionately higher rates for minority students (Bradshaw et al., 2010; Codrington & Fairchild, 2012; Kearney, 2011; Zhang et al., 2014). However, results from this study were contrary to previous findings in that White students received the highest rating for how likely a teacher would refer to special education evaluation, although the finding was not statistically significant. The premise of cultural theory suggests that individuals form perceptions of world experiences that are consistent with the systems of attitudes and beliefs that reflect their cultural way of life (Kahan, 2012). Findings from this study upheld the premises of cultural theory in that race of student and race of teacher were statistically significant predictors of how likely teachers would refer male students for special education evaluation.

Limitations of the Study

This study has several limitations. First, it is possible that the results from the sample may not represent the total population of teachers in the school districts across the United States. If the study were replicated on a larger cross-sectional sample of teachers from across the United States, the results may be different. If the study were replicated with a sample of teachers from different states or with teachers from schools in neighborhoods of students from more varied socioeconomic backgrounds, the results also may be different. Second, the teachers may have had stereotypes or predilections toward a race/ethnicity that were not reflected in their responses to the data collection instruments, and therefore their responses to the survey may not have provided honest responses. Another associated limitation pertains to the wording that was used to describe the fictitious students on the TRF. The wording described the race of each student, which may have enabled teachers to give what they perceived to be socially desirable ratings. With social desirability, respondents answer questions according to what they perceived to be the socially acceptable option versus giving their honest responses (Adams et al., 2005). The racial descriptions on the TRF may have enabled teachers to mask their true biases and prejudices toward minority students. Consequently, the teachers may have altered their attitudes after reading the survey items and adjusted their view after seeing the race of the student. Although responses to the TRF were anonymous, the teachers still may not have wanted to appear biased or prejudiced. A third limitation of this study is that participants were teachers with general and special education teaching experiences from a single high school, and these results may not be generalizable to elementary, private, or middle school teachers.

Recommendations

Findings from this study suggest that future investigations must take a more systematic approach to examine variables that affect the disproportionate number of

referrals of African American/Black students to special education and the subsequent outcomes associated with the referrals. Perhaps the use of a quantitative, qualitative, or mixed-method approach might produce data that shed more light on the variables related to teacher referrals of male students to special education that may have been overlooked in this study. The current quantitative study should be replicated with one major change, and that would be not including race in the behavioral scenarios for the students. Instead, the descriptions could contain names of students that are more typically associated with a particular racial or ethnic group. Removing the race of student from the scenarios may make it less likely that teachers would engage in social desirability and instead respond according to implicit assumptions and biases that they may hold toward various racial and ethnic groups. A qualitative component could be added to the study whereby researchers could gather additional information from teachers through interviews regarding their underlying reasons for deciding to refer students to special education evaluation. Future studies should also include a broader sample of teachers from different geographic areas and other school levels such as elementary, middle, and junior high school teachers. A broader sampling of teachers may provide a more comprehensive view of how various student and teacher variables are related to teachers' decisions to refer students for special education evaluation.

Implication for Social Change

The positive social-change implications encouraged by this study were that the findings could be used to raise the awareness of teachers and other professional practitioners regarding the connections between teacher characteristics, student characteristics, and teacher referral of males for special education evaluation. Results from the study could be used to advocate the need for cultural sensitivity awareness and training seminars that inform educators of how variables such as student race/ethnicity, teacher gender, teacher race/ethnicity, and teacher attitude toward inclusion are related to the teacher referral of males for special education evaluation. Educators could also be informed of how the social exclusion associated with special education placement adversely affects long-term outcomes for students.

The training would be designed to increase cultural awareness and promote more culturally sensitive practices among teachers. Consequently, by being more culturally sensitive and aware, teachers may be less likely to refer males for special education. Perhaps the teachers would work to develop more culturally relative and sensitive classroom management procedures, which would also reduce the need to refer students for either special education evaluation or office disciplinary referrals (Bradshaw et al., 2010). Such training could promote social change by hypothetically reducing the number of male students, particularly African American/Black males, being referred for special education evaluation.

Conclusion

The disproportionate representation of male students, particularly African American/Black males, referred to special education is a social problem that must be addressed. Professionals in the education setting must be cognizant of how their cultural perceptions of various racial and ethnic groups affect how they respond to school children of various racial and ethnic groups. Teachers must be aware of how exclusionary practices of special education placement affects the educational outcomes for students educated in those exclusionary settings. Teachers must also be aware of how their implicit assumptions and biases affect their responses to behaviors of students from those groups. Teachers must also be aware of how their biases toward racial and ethnic minority groups might affect their decisions to refer students from those groups for special education evaluation and possibly placement. Teachers are the professionals who are most likely to make a referral for special education evaluation, and they represent the professionals who are best poised to bring about social change. Findings from this study could be used to open discussions and dialogue with teachers about how student and teacher variables affect teacher decisions to refer male students to special education evaluation. Through discussion and dialogue teachers could be made aware that special education evaluation referrals should not be the panacea for addressing disruptive classroom behaviors. Teachers could be informed of the need to adopt more culturally sensitive and culturally responsive classroom management techniques, which could ultimately reduce the number of males referred for special education evaluation and subsequent placement.

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Authors

Lorenzo Adrian Woodson, PhD, recently graduated from Walden University in Human Services. He graduated from Community College of Philadelphia 1987. He holds a bachelor's degree in early childhood education and a master's degree in human services counseling. He is a licensed behavioral specialist and CEO/owner of Educational & Behavioral Consulting Services LLC, since 2013.

Sandra M. Harris, PhD, is the Assessment Director for the College of Social and Behavioral Sciences at Walden University. She holds a Doctor of Philosophy degree in Educational Psychology, as well as a Master's of Education in School Psychometry from Auburn University in Alabama. She obtained Master of Arts and Bachelor of Arts degrees in psychology from California State University.

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