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Racial matching and adolescent self-disclosure of substance use and mental health symptoms

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Abstract

Obtaining accurate assessment data from adolescents in treatment aids clinical decision making and facilitates more accurate outcome evaluations. However, findings could be biased due to underreported substance use and mental health symptoms. This article compares self-reports of youth in non-White matched client–assessor dyads and those in nonmatched dyads. There were no differences on self-reported substance use, but matched youth reported significantly fewer attention deficit/hyperactivity disorder symptoms versus the comparison group. One possible reason for these findings is the effect of in-group stereotype threat. Future studies should examine the potential effect that in-group stereotyping and perceived racism have on the therapeutic relationship.

Keywords

psychological assessment; ethnic minorities; racial matching; stereotype threat; substance use disorder

Introduction

As the percentage of racial/ethnic minority youth receiving substance use treatment services is expected to rise, it is important to empirically evaluate how diversifying the workforce may improve initial assessment processes (Guerrero, 2013). Obtaining accurate assessment data from adolescents presenting for substance use disorder treatments aids clinical decision making and facilitates more accurate outcome evaluations (Dennis, White, Titus, Unsicker, & Hodgkins, 2003). However, a major critique of substance use disorder treatment research methods is that findings could be biased due to underreported alcohol or other drug use. This prompted a number of studies that tested the concordance of self-report with biological tests (Buchan, Dennis, Tims, & Diamond, 2002; Smith, Hall, Williams, An, & Gottman, 2006) and collateral reports from parents or other individuals (Kedia & Perry, 2005). Underreporting has been documented (i.e., positive biological test with a negative self-report) but may not be as widespread as was previously assumed. For example, in Smith and colleagues' (2006) study, roughly 10% (15/154) of adolescents underreported drug use on self-report measures. Because of this, it is generally recommended that adolescent substance

use assessments use multiple methods to corroborate self-report (Buchan et al., 2002; Winters, Latimer, & Stinchfield, 2002). To our knowledge, there is no research testing whether or not racial/ ethnic matching of non-White youth to assessment interviewers results in higher self-reported substance use and mental health symptoms.

Racial and ethnic disparities have been shown to exist in mental health service access, appropriateness, and quality of care (Schmidt, Greenfield, & Mulia, 2006). These disparities are currently being addressed by placing an increased importance on culture and language in health care policy. Although numerous researchers suggest that cultural mistrust may impact racial minorities preferences for non-White clinicians and satisfaction with such providers (Biafora et al., 1993; Nickelson, Helms, & Terrell, 1994; Terrell & Terrell, 1984; Townes, Chavez-Korell, & Cunningham, 2009; Whaley, 2001a, 2001b), it remains unclear if matching with a non-White provider would affect self-reported substance use or mental health disorder assessment data for adolescents at treatment intake. It is unfortunate that there is no data on this question, as one major strategy for increasing the cultural competence of substance use programs is hiring substance use treatment staff that are similar in racial/ ethnic backgrounds of those served in such programs (Guerrero, 2013).

Perceived racism has been show to increase cultural mistrust and has deleterious impacts on client/caregiver relationships including client trust and satisfaction with their worker (Benkert, Peters, Clark, Keves-Foster, 2006; Greene, Way, & Pahl, 2006). These factors, combined with a history of racial oppression, may contribute to a dynamic where minority clients may regularly underreport symptomology in substance use and mental health care settings (Marbley et al., 2007; Mensch & Kandel, 1988; Poston, Craine, & Atkinson, 1991). This study tests the impact of racial/ethnic matching of non-White adolescents to assessment staff on self-reported substance use and mental health symptoms, while controlling for the effects of perceived racism between matched and non-matched adolescents. Very little is known about what effects racial/ethnic matching may have on self-reported assessment information among non-White adolescents. As non-White adolescents will constitute a greater proportion of treatment admissions in the coming years due to shifting demographic trends in the U.S., it is important to understand the effects of diversifying our substance use disorder treatment workforce. Due to the high preference for and higher perceived competence of therapists of similar racial/ ethnic background (Cabral & Smith, 2011), as well as the positive effects observed for racial/ethnic matching on retention (Wintersteen et al., 2005), we hypothesize that matched youth may report more substance use and mental health symptoms at treatment intake versus unmatched youth.

Racial matching in substance use and mental health treatment

Here racial matching is defined as the pairing of a non-White therapist with a non-White client receiving an initial substance use and mental health assessment. Prior research on racial matching has produced mixed results. For example, in Cabral and Smith's (2011) meta-analysis ($n = 154$), participants reported higher perception of therapist credibility and skill ($d = 0.32$) and preferences ($d = 0.63$) for racially matched therapists. However, there was a negligible effect of racial matching on actual client outcomes ($d = 0.09$), except among matched African-American dyads. When participants were stratified by race,

African-Americans exhibited the highest effect sizes in all three areas: preference ($d = 0.88$); perception ($d = 0.59$) and outcomes ($d = 0.19$). As African-Americans in substance use disorder treatment are often court-referred (Howard, 2003), it may be that they are especially likely to benefit from racial/ethnic matching. Two key limitations in Cabral and Smith's (2011) review are the inclusion of very few adolescent substance use disorder treatment studies, as well as the age of many of the studies. That is, the median publication dates for studies in this review were 1986 ($k = 52$), 1991 ($k = 81$), and 1999 ($k = 53$) for the preferences, perceptions, and client outcomes variables, respectively. In short, this meta-analysis underscores the need for updated empirical work on the effects of racial matching for adolescents entering substance use disorder treatment. This work is especially needed among programs serving large numbers of racial and ethnic minorities, such as African-American or Hispanic adolescents. As this study uses a sample with a large percent of non-White minority adolescents, it is ideally suited to address this research gap.

Racial matching studies with adolescents in SUD treatment

In the limited research on racial matching among adolescents in substance use disorder treatment, Wintersteen et al. (2005) showed that racial matching in substance use treatment lead to increased retention. There were not, however, stronger therapeutic alliances among matched dyads relative to non-matched dyads. Additional studies have found racial matching had positive outcomes on substance use for adolescent Hispanic clients (Flicker, Waldron, Turner, Brody, & Hops, 2008). However, Grella, Hser, Joshi, and Rounds-Bryant (2001) argue that racial matching had no effect on client engagement or therapeutic outcomes. Additionally, Jerrell (1998) found that ethnically matched clients stay in outpatient treatment longer and use less intensive services. Again, although there are studies examining the effects of racial matching on client retention, satisfaction, and adolescent SUD treatment outcomes, none have tested the impact of racial matching on self-report from initial assessments.

Methods

Participants and procedures

Adolescents (age 13–19) were referred to substance use disorder treatment as part of a 12-month, SAMHSA-funded treatment evaluation project. In total, 94 adolescents were assessed for eligibility for treatment. Participants were assessed at baseline using the Global Appraisal of Individual Needs (Dennis et al., 2003) and had scheduled follow up sessions at 3, 6, and 12 months. Adolescents eligible for treatment received the Adolescent Community Reinforcement Approach (A-CRA) (Godley et al., 2001), and for those that needed on-going support to stay drug free after the initial 12 sessions, participants were offered A-CRA's companion aftercare model, called Assertive Continuing Care (Godley, Godley, Dennis, Funk, & Passetti, 2007). This study was approved and monitored by the Institutional Review Board at the lead author's institution.

For the purposes of this study we included only individuals who did not exclusively report being Non-Hispanic White (i.e., non-White; yes = 1, no = 0) bringing our final sample size to 83 participants. Further, to understand how participant-therapist racial match impacts

substance use and psychological symptoms we created a dichotomous racial match (yes = 1, no = 0) variable. To be considered a racial match, both the therapist and participant reported any race other than “Non-Hispanic White.” We then compared self-reported substance use and mental health symptoms among youth who were coded as being non-White racial/ethnic matches (22.8%, $n = 19$) or non-White racial/ethnic mismatches (77.2%, $n = 64$).

On average, participants were 16.0 (SD = 1.28) years old, with females composing 25.3% of the sample (see Table 1). In regard to substance use, 40.9% of participants had past year substance dependence diagnoses, and, on average, participants used marijuana on 32 (SD = 30.5) days and alcohol on 4.69 (SD = 8.62) days out of the past 90 days. Participants reported, on average, 7.16 (SD = 5.30) attention deficit/hyperactivity disorder (ADHD) symptoms, and 8.43% of the sample was diagnosed with generalized anxiety disorder.

Five therapists provided assessments in this study. This group of therapists included two African-American females, two White females and one White male. All but one therapist were master’s level clinicians (two licensed professional counselors, one licensed clinical social worker, one unlicensed therapist). The therapist that was not master’s level was completing her practicum for her master’s in social work degree. Data on therapist age were not available, but, anecdotally, all therapists were in their mid-20 s to mid-30 s. Therapists provided a one-time assessment, utilizing the Global Appraisal of Individual Needs (GAIN-I), that took approximately 1.5 hours.

Measures

Participants in this study were administered the GAIN-I, a valid and reliable, semistructured assessment tool (Buchan et al., 2002; Dennis, Funk, Godley, Godley, & Waldron, 2004). The GAIN-I is a widely used assessment tool and has been shown to be appropriate for adolescents receiving substance use treatment (Dennis et al., 2004). The pertinent subscales are explained in the following sections.

Substance problem scale (SPS)

The SPS is a 16-item count of past month symptoms of both Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) substance abuse (four items) and dependence (seven items) criteria as well as other health and psychological problems resulting from substance use. Higher scores on the SPS indicate greater severity of drug or alcohol problems. Questions included the same stem: “When was the last time you...,” with sample items including “You use alcohol or other drugs weekly or more often?” and “You kept using alcohol or drugs even after you knew it was causing or adding to medical, psychological or emotional problems you were having?” This scale was adapted from the American Psychiatric Association (American Psychiatric Association [APA], 2000) DSM-IV abuse and dependence criteria sets. The SPS has been found to be a highly reliable ($\alpha = .90$) measure of substance problems (Conrad, Dennis, Bezruczko, Funk, & Riley, 2007).

Substance frequency scale (SFS)

The SFS measures the proportion of days (out of the past 90) the participant reports using alcohol or other drugs. Higher scores on this scale indicate higher frequency of use across an

increasingly larger number of substances. An example question from the SFS reads, “During the past 90 days, on how many days have you ... used any kind of alcohol?” The SFS has been shown to be a reliable and valid measure for adolescents ($\alpha = .80$; (GAIN Coordinating Center, 2013).

Emotional problem scale (EPS)

The EPS is a measure of the average days (out of the past 90) participants report being bothered by emotional problems such that it kept them from meeting responsibilities (e.g., work) or they were disturbed by memories (e.g., death of a family member). Example questions include, “During the past 90 days, on how many days ... were you bothered by any nervous, mental, or psychological problem?” and “In the past 90 days, how many days have you been disturbed by memories of things from the past that you did, saw, or had happen to you?” This scale has been found to be a highly reliable measure of emotional problems ($\alpha = .78$; GAIN Coordinating Center, 2013).

Attention deficit/hyperactivity disorder scale (ADHDS)

The ADHDS is a count of DSM-IV symptoms for ADHD. Higher scores on this scale indicate a higher likelihood of an ADHD diagnosis. This scale was adapted from the American Psychiatric Association (APA, 2000). This scale has a common root: “During the past 12 months, have you done the following things two or more times?” in which participants answer yes or no to questions such as “Made mistakes because you were not paying attention?” and “Been forgetful or absentminded?” The ADHDS has been found to be a reliable measure of symptoms for adolescents ($\alpha = .90$; (GAIN Coordinating Center, 2013; Titus, Dennis, Lennox, & Scott, 2008).

Conduct disorder scale (CDS)

The CDS is a count of past year symptoms of conduct disorder based on criteria outlined in the DSM-IV (APA, 2000). Higher scores on this scale indicate greater likelihood of delinquency, with three or more items indicating a diagnosis of conduct disorder. The CDS items share the stem “During the past 12 months, have you done the following things two or more times?” Participants answer yes or no to questions such as “Been a bully or threatened other people?” and “Broken windows or destroyed property?” The CDS has shown to be a reliable measure of conduct disorder in adolescents ($\alpha = .75$; (GAIN Coordinating Center, 2013; Titus et al., 2008).

Depressive symptom scale (DSS)

The DSS is a count of past year depression symptoms based on DSM-IV criteria (APA, 2000). Higher scores indicate higher levels of depression. An example question includes, “During the past 12 months, have you had significant problems with ... feeling very trapped, lonely, sad, blue, depressed, or hopeless about the future?” The DSS has been shown to be a reliable measure of depressive symptoms in adolescents ($\alpha = .73$; (GAIN Coordinating Center, 2013; Titus et al., 2008).

Perceived discrimination

A single dichotomous variable was used to identify participants who had experienced stress resulting from discrimination. The variable asked, “In the past 12 months have you been under stress because of discrimination in the community, at work, or in school?” Participants answered yes (coded 1) or no (coded 0).

Data analysis

We conducted chi-square analyses to compare matched and unmatched youth on categorical variables measuring demographic and clinical severity characteristics as well as t-tests for all continuous variables (see Table 1). Because all dependent variables tend to be correlated (SFS, SPS, ADHD, DSS, EPS, CDS), we planned to use multivariate analysis of variance to capitalize on increased power when multiple dependent variables are correlated (Weinfurt, 1995). In initial bivariate tests, the dependent variables were moderately ($r = 0.3\text{--}0.7$) and significantly correlated (see Table 2). However, some variables such as the ADHD scale, EPS, and DSS had low ($r = 0.1$) and nonsignificant associations with the two substance use variables (SPS and SFS). Our outcomes analysis involved two separate multivariate analyses of variance (MANOVAs). Whereas the first model used only racial/ethnic matching as the independent variable, the second model included a second independent variable, perceived discrimination (1 = yes, 0 = no). This allowed us to test whether perceived discrimination was confounding results and to determine the unique variance accounted for by perceived discrimination beyond that achieved from the racial matching variable.

Results

Table 2 presents the bivariate correlations between the study’s dependent variables. As expected, there was a moderate correlation between the two substance use scales (e.g., $r = .63$ for substance frequency and substance problems) as well as moderate (e.g., $r = .61$ for depression and emotional problems) to low (e.g., $r = .35$ for depression and conduct disorder) correlations between the four mental health scales (EPS, ADHDS, CDS, DSS).

Table 3 presents findings from two separate MANOVA models, one with and one without perceived discrimination entered as a covariate. Again, the latter only included the racial match variable as a predictor. The omnibus F test was not significant for either the model with ($df:2, 80; F = 1.06, p = .35$) or without ($df:1, 81; F = .92, p = .34$) the perceived discrimination variable, indicating that racial matching was not associated with either a significant increase or decrease in reporting in the linear combination of dependent variables. Although nonsignificant, the full model (racial match and perceived discrimination) accounted for three percent of the variance ($\eta^2 = .03$) in the linear combination of these variables, whereas model 1 (racial match only) accounted for 1% of the variance ($\eta^2 = .01$).

In both models, youth in nonmatched dyads reported significantly more ADHD symptoms. In model 1, which only included the racial match variable, the adjusted mean difference was 2.91, indicating that nonmatched youth reported about three additional ADHD symptoms compared to non-White matched youth. Although differences on all other variables did not

reach statistical significance, the adjusted mean differences represent small to moderate differences. The trend was for nonmatched youth to report more symptoms on all substance use and mental health scales.

Discussion

Racial matching is one proposed way to ameliorate cultural mistrust and perceived racism that may impact the effectiveness of substance use disorder treatment services (Guerrero, 2013). Contrary to our initial hypothesis that non-White racially matched adolescents would report higher self-disclosure of mental health and substance use symptoms, we found the opposite. Across all outcomes, nonmatched adolescents reported higher substance use and mental health symptoms, with a significantly higher number of ADHD symptoms reported among nonmatched youth. Thus, we did not replicate the prior positive findings from racial matching studies that used samples of adolescents suffering from substance use problems (Wintersteen et al., 2005).

Ironically, these data suggest that racial matching may have some unintended negative consequences, such as inhibiting rather than promoting higher self-reports during intake assessment. It is important to consider why this may be the case. For example, according to Sue (1998), racial matching can be successful for some, but not all, clients. Sue (1998) argues that cultural competency of the therapist has greater implications than racial match and goes on to explain a dynamic he refers to as a type of functional paranoia. As our study did not include measures of cultural competence, it is difficult to ascertain if this may have overshadowed the impact of being racially matched with an intake assessor. As 88% (83/94) of all youth in the larger study from which this sample was drawn were ethnic minorities, it may have been that the White therapists in this study were highly experienced in working with ethnic minority adolescents. This, in turn, may have resulted in higher self-reported mental health and substance use symptoms at treatment intake.

Another plausible explanation for these surprising findings is that participants in the matched sample were protecting against an in-group stereotype threat. Steele and Aronson (1995) defined stereotype threat as “being at risk of confirming, as self-characteristic, a negative stereotype about one’s group.” Shapiro and Neuberg (2007) discussed in-group stereotyping as a specific type of stereotype threat in which individuals fear that their behavior will confirm negative stereotypes held by in-group members and subsequently lead to judgment or poor treatment. This dynamic may have led to adolescents in racially/ethnically matched dyads to report lower substance use and mental health symptoms. For example, an African-American client may have experienced stereotype threat activation when being matched with an African-American therapist and reported lower substance use and mental health symptoms due to a fear that he or she may be viewed as fitting a negative stereotype about his or her shared racial/ethnic group. In short, avoiding the confirmation of a negative stereotype in front of members of one’s own racial/ethnic group may have accounted for lower self-reported substance use and mental health symptoms. Future research should focus on determining whether in-group stereotype threat impacts self-reported assessment data.

Limitations

While this study presents many notable strengths, there are some limitations. First is the small sample size. In this study, sample size limited our power to detect significant differences unless effect sizes were large. Furthermore, the small sample size prevented us from including a larger number of potential covariates that may have accounted for self-reported substance use and mental health symptoms at intake (referral source, criminal justice involvement). Sample size also precluded testing whether interactions between therapist age, gender, and racial background impacted youth self-report. These dynamics are thought to affect the therapeutic relationship (Hill, 2005). Finally, as the trends were for nonmatched youth to report a higher number of symptoms for all variables, some of these differences may have been statistically significant if this study had a larger sample. Second, the definition of racial/ethnic matching here was the pairing of non-White adolescents to two African-American female therapists. Thus, although the majority of matches were of African-American youth to African-American therapists (68%, $n = 13$), this definition included as “matches” (31%, $n = 6$) those adolescents who were Latino ($n = 5$) and Native American ($n = 1$). As all therapists included in the development of the racial match variable were African-American females, this could have impacted findings. Although this is a limitation, studies have shown that African-American and Hispanic/Latino adolescents share many similarities such as perceptions of cultural mistrust and strength of ethnic identity/pride and thus might respond similarly to substance use treatment (Gil, Wagner, & Tubman 2004). In epidemiological research, African Americans and Hispanic/Latino subpopulations are similar in social position and report similar patterns of seeking out and using specialty services such as substance use treatment services (Alegria, Canino, Rios, et al 2002). Given the similarities of U.S.-born African-American and Hispanic/ Latino adolescents and the increasing number of youth in these categories, there is need to further explore youth perceptions of the race/ethnicity of intake specialists and self-reported substance use and mental health symptoms. Nonetheless this is a first attempt to observe self-reported assessments when non-White youth are matched to non-White therapists. Future studies are needed to replicate these findings and to test the role of stereotype threat in larger samples with therapists from varying racial backgrounds (African American, Hispanic, Native American, and Asian). In addition, it is unclear whether findings would have been different if we had used a less structured assessment. However, one could argue that interpersonal skills and cultural competence training would be more important during less versus more structured interactions, as structured interactions are highly scripted and don't involve explorations of cultural themes. Unfortunately, we were unable to account for therapist skill level or other unmeasured variables (e.g., cultural competence) that may have influenced findings. Since this was a cross-sectional study without experimental manipulation of matches, it is possible that just by chance we sampled youth with higher self-reports in the nonmatched groups. Although we cannot be certain due to not understanding how cases were assigned to therapist, there was a disproportionately higher number of youth in the unmatched group (77%; 64/83 youth). Thus it seems that this larger group would have more likelihood of capturing both lower and higher severity adolescents served in the treatment center.

Conclusion

In spite of limitations, this was the first study to examine the effect that racial matching has on client self-disclosure of mental health and substance use symptoms during assessment. The statistically significant findings that minority participants reported fewer ADHD symptoms when in a racial/ethnic match may be explained by in-group stereotyping. Future research should use larger sample sizes and should also investigate whether in-group stereotype threat moderates the association between racial/ethnic match and self-reported substance use and mental health symptoms. It is our hope that by conducting more research on in this area that researchers and clinicians may ultimately develop strategies for helping racial/ethnic minority youth feel more at ease during initial substance use disorder assessments.

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Table 1

Baseline characteristics of adolescents by match status.

	Match (<i>n</i> =19) M (SD) or <i>n</i> (%)	No match (<i>n</i> =64) M (SD) or <i>n</i> (%)	Total (<i>n</i> =83)
Age	16.3 (1.2)	15.9 (1.3)	16.0 (1.3)
Female <i>n</i> (%)	5 (31.3)	16 (25.0)	21 (25.3)
Racial Background <i>n</i> (%)			
African American	8 (42.1)	30 (46.9)	38 (45.8)
African American/Biracial	5 (31.3)	16 (25.0)	21 (25.3)
Hispanic	5 (31.3)	18 (28.1)	23 (27.7)
Native American/AN	1 (5.3)	0 (0.0)	1 (1.2)
Substance Use/Mental Health			
Past Year DSM IV Dependence <i>n</i> (%)	6 (31.6)	28 (43.8)	34 (41.0)
Past Year DSM IV Abuse <i>n</i> (%)	7 (36.8)	23 (35.9)	30 (36.1)
Days of Marijuana Use (past 90)	26.7 (33.8)	33.5 (29.6)	32.0 (30.5)
Days of Alcohol Use (past 90)	5.8 (12.6)	4.3 (6.5)	4.7 (8.2)
Years of Substance Use *	4.6 (2.8)	3.1 (2.2)	3.4 (2.4)
Age of First Use Less Than 15 ^a <i>n</i> (%)	17 (89.5)	49 (76.6)	66.0 (79.5)
ADHD scale *	4.8 (4.3)	7.9 (5.4)	7.2 (5.3)
Conduct Disorder Scale	2.6 (2.5)	3.4 (2.7)	3.2 (2.7)
General Anxiety Disorder ^b <i>n</i> (%)	0.0 (0.00)	7.0 (10.9)	7.0 (8.4)
Traumatic Stress Scale ^c	2.4 (3.3)	3.1 (4.1)	3.0 (3.9)
Criminal Justice Involvement			
Days on Probation (out of past 90 days)	45.6 (44.0)	29.9 (41.7)	33.3 (42.4)
Days in Jail (out of past 90 days)	5.78 (10.1)	3.2 (12.2)	3.8 (11.7)
Readiness to Change Scales			
Treatment Motivation Index	2.0 (1.3)	1.7 (1.2)	1.8 (1.2)
Self-Efficacy Scale	4.5 (1.2)	4.2 (1.2)	4.3 (1.2)

ADHD=attention deficit/hyperactivity disorder; CJSI=criminal justice system index.

^aPercent of participants that used substances before the age of 15.^bPercent diagnosed with general anxiety disorder.^cCount of memories or symptoms of trauma in past year (e.g., PTSD).*
p < .05.

Table 2

Correlations between dependent variables.

	1.	2.	3.	4.	5.	6.
1. Substance Problem Scale (SPS)	–					
2. Substance Frequency Scale (SFS)	.633**	–				
3. Emotional Problem Scale (EPS)	.167	.145	–			
4. ADHD Scale (ADHDS)	.317**	.111	.554**	–		
5. Conduct Disorder Scale (CDS)	.330**	.219*	.424**	.607**	–	
6. Depressive Symptom Scale (DSS)	.211*	.130	.608**	.540**	.347*	–

^aADHD=attention deficit/hyperactivity disorder.

**
p < .0001

*
p < .05.

Table 3

Summary of multivariate analysis of variance (MANOVA) models

Response Variables	Matched (<i>n</i> =19) <i>M</i> (<i>SE</i>) ^{<i>a</i>}	Not Matched (<i>n</i> =64) <i>M</i> (<i>SE</i>)	Model 1 ^{<i>b</i>}			Model 2 ^{<i>c</i>}		
			<i>F</i>	<i>p</i>	η^2	<i>F</i>	<i>p</i>	η^2
Substance Problems	2.42 (.858)	3.35 (.467)	.920	.340	.011	1.09	.299	.014
Substance Frequency	13.6 (3.09)	14.7 (1.69)	.050	.823	.001	.070	.789	.001
Emotional Problems	24.0 (4.88)	33.3 (2.66)	2.78	.099	.033	2.40	.125	.029
ADHD	4.97 (1.19)	7.88 (.646)	5.22	.025*	.061	4.63	.035*	.055
Conduct Disorder	2.63 (.609)	3.42 (.332)	1.30	.258	.016	1.19	.278	.015
DSS	2.16 (.584)	3.23 (.318)	2.62	.109	.031	2.32	.132	.028

ADHD=attention deficit/hyperactivity disorder; DSS=Depressive Symptom Scale.

^{*a*} Adjusted means are presented for Model 1 only.^{*b*} Model 1 included only the race matching independent variable.^{*c*} In addition to race match, model 2 controls for perceived discrimination.* $p < .05$.