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Racial and Ethnic Disparities in Childhood ADHD Treatment Access and Utilization: Results From a National Study

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Abstract

Objective: The study examined racial-ethnic disparities in access to and utilization of treatment for attention-deficit hyperactivity disorder (ADHD) and other psychiatric diagnoses among children with ADHD.

Methods: Nationally representative, cross-sectional data from the Household Component of the Medical Expenditure Panel Survey 2011–2019 were used to examine racial-ethnic disparities in access to and utilization of treatment by children ages 5–17 with ADHD (N=5,838). Logistic regression models were estimated for access outcomes, and generalized linear models were estimated for utilization outcomes. Multivariable regression models adjusted for race-ethnicity, age, sex, and treatment need in accordance with the Institute of Medicine definition of health care disparities.

Results: In adjusted analyses, compared with White children with ADHD, Black, Hispanic, and Asian children with ADHD had significantly lower rates of any past-year treatment visit for ADHD or for other psychiatric diagnoses. They also had lower rates of having accessed ADHD medication. Compared with White children, Black and Asian children with ADHD used fewer ADHD medications, and Black and Hispanic children with ADHD had lower overall mental health treatment expenditures.

Conclusions: Disparities in ADHD treatment among children from racial-ethnic minority populations may be driven primarily by disparities in access rather than in utilization. Once

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treatment had been accessed, disparities in utilization were largely accounted for by differences in socioeconomic status. These findings suggest that interventions targeting access to treatment among children from racial-ethnic minority populations may help close existing care gaps.

Attention-deficit hyperactivity disorder (ADHD) is one of the most commonly diagnosed childhood disorders and if untreated can lead to poorer occupational, social, and health outcomes in adulthood (1). Although evidence-based treatments are available, research has shown that Black and Hispanic children with ADHD are less likely than their White counterparts to receive treatment (2, 3). Once Black and Hispanic children with ADHD receive treatment, they may be more likely than White children to disengage from treatment (4–6) or to receive poorer-quality care (5). Most previous studies of ADHD treatment disparities have focused on Hispanic-White and Black-White disparities and have not extended analyses to include Asian populations (6). The few existing studies suggest that Asian children with ADHD are less likely than other children to receive any treatment (3, 7).

Although previous studies have reported disparities in ADHD treatment rates, few studies of ADHD have distinguished between treatment access and treatment utilization disparities. One study using the 1997–2000 Medical Expenditure Panel Survey (MEPS) found that African American children with ADHD were less likely than White children with ADHD to initiate stimulant treatment (8). Another study of privately insured children found that children from racial-ethnic minority groups had lower odds of receiving treatment in the year following ADHD diagnosis, suggesting a potential disparity in ADHD treatment access (3). Examining disparities along various points of the help-seeking pathway may elucidate potential mechanisms and areas for intervention.

This study examined racial-ethnic disparities in childhood ADHD treatment access and utilization by using data from the MEPS, the most comprehensive, nationally representative, community-based survey of health care utilization. By examining expenditures as well as the number of treatment visits and prescriptions received, this study provided insight into disparities both in access and in the amount of treatment received. In addition, the inclusion of Asian children allowed for a better understanding of disparities faced by this understudied population. We hypothesized that children with ADHD from all racial-ethnic minority groups would have lower rates of treatment access and utilization, compared with their White counterparts.

METHODS

Data

We used multiple cross-sections from the 2011–2019 Household Component of the MEPS (9). Multiple years were pooled to increase the precision of our estimates. The MEPS is administered by the Agency for Healthcare Research and Quality and captures detailed sociodemographic, clinical, and health care information from a nationally representative, community-based sample of noninstitutionalized U.S. civilians. The MEPS is administered in both English and Spanish, which is especially important given that non-English speakers are more likely to face barriers to mental health treatment because of the lack of interpreter services and translated materials (10). Previous studies have largely relied on self-reported

measures of treatment use. Because of its follow-up verification of utilization with medical providers and insurance companies, the MEPS offers more accurate estimates of treatment utilization. ADHD diagnosis status was obtained by asking caregivers whether they had ever been told by a doctor or other health professional that their child or children ages 5–17 had ADHD or attention deficit disorder (ADD). This resulted in a final sample of 5,838 participants with ADHD. This study was deemed exempt by the Cambridge Health Alliance Institutional Review Board.

Primary Outcome Variables

Primary outcomes were access to and utilization of ADHD treatment, separated into treatment visits, ADHD medication prescriptions, and total ADHD treatment–related expenditures. We defined access as any treatment use, which captured enabling factors, such as coverage and availability of services, that allowed an individual to use care (11), and we defined utilization as the amount of care used once treatment was accessed. We constructed dichotomous and count variables that represented health care provider (e.g., psychiatrist, psychologist, social worker, or primary care provider) visits for an ADHD diagnosis and ADHD medication prescription fills in the past year. Any visit associated with *ICD-9* code 314.X or *ICD-10* code F90.X was considered to involve ADHD treatment. ADHD-specific medications were identified by using the National Institute of Mental Health, Healthline, and GoodRx websites (a table listing the names of these medications is included in an online supplement to this article). We combined total direct payments associated with provider visits to assess ADHD treatment–related expenditures in the past year, which included all direct payments by private insurance, Medicaid, and other insurance sources, as well as out-of-pocket payments (12).

Secondary Outcome Variables

Given the high level of comorbid psychiatric diagnoses among children with ADHD (13, 14), we conducted secondary analyses examining access to and utilization of treatment for any psychiatric diagnosis, including but not limited to ADHD—hereinafter referred to as mental health treatment. Examining receipt of treatment for any psychiatric diagnosis may elucidate whether disparities for children with ADHD from racial-ethnic minority groups persist beyond ADHD treatment. We assessed access to and expenditures for mental health treatment, defined as outpatient or inpatient visits or medication prescription fills associated with any psychiatric diagnosis in the past year. A visit was considered to involve mental health treatment if it was associated with a mental disorder diagnosis using *ICD-9* codes 291, 292, or 295–314 (15) or *ICD-10* codes F01–F99 or if the treatment was coded as psychotherapy or mental health counseling. Psychotropic medications were identified by using the Multum classification system (16).

IOM Definition of Health Care Disparities

We conducted our main analyses in accordance with the Institute of Medicine (IOM) definition of health care disparity as described in *Unequal Treatment* (17) (the IOM is now named National Academy of Medicine [NAM]; per NAM recommendation, we use the original acronym for this definition). The IOM defined disparities as observed differences that are not explained by differences in clinical appropriateness, treatment need, or patient

preferences. Differences due to socioeconomic status (SES) factors (e.g., income and health insurance status) are considered contributors to disparity (17). As such, our main analysis did not adjust for SES covariates. We included measures of self-rated physical and mental health status as well as impairment as proxies for treatment need. The MEPS does not capture patient preferences or clinical appropriateness, and our main analyses did not adjust for these factors.

Although we regard implementing the IOM definition of disparities as best practice, using a narrower view of disparities may elucidate the specific contribution of race-ethnicity to disparities. The residual direct effect (RDE) method implicitly defines a disparity to be any difference between racial-ethnic groups that is evident after the analysis controls for all possible confounders (18), which contrasts with the IOM definition by the inclusion of adjustment for SES. Given the complex relationship between race-ethnicity, SES, and health, we conducted exploratory analyses by using the RDE definition to characterize disparities after additionally adjusting for racial-ethnic differences in SES (see tables in the online supplement).

Independent Variables

The primary variable of interest was self-reported race-ethnicity, which was categorized according to the U.S. Census as non-Hispanic White, non-Hispanic Black, Hispanic, and non-Hispanic Asian, including Native Hawaiian and Pacific Islanders (hereinafter referred to as White, Black, Hispanic, and Asian, respectively). Individuals of another race or of multiple races were excluded because of the small sample sizes. Covariates representing treatment need were scores on the Columbia Impairment Scale (CIS) (19), caregiver-rated perceived physical health, and caregiver-rated perceived mental health. Age and sex were also included as proxies for treatment need, given the reported differences in prevalence of psychiatric disorders across these factors (20, 21). Indicators for survey year were included to account for differences by sampling year. SES covariates, included in exploratory RDE analyses only, were U.S. region of residence (Northeast, Midwest, South, or West), insurance status (private, public [Medicaid or Children's Health Insurance Program], other, or uninsured), and federal poverty level (FPL) (poor, <100% FPL; near poor, 100%–124% FPL]; low income, 125%–199% FPL; middle income, 200%–399% FPL; or high-income, ≥400% FPL).

Statistical Analysis

First, unadjusted differences in treatment access and utilization, demographic factors, treatment need, and SES were compared by race-ethnicity. Student's t tests or Pearson's chi-square tests were used as appropriate, with White as the reference group. Next, using multivariable regression, we examined whether treatment access and amount of treatment received by children with ADHD differed by race-ethnicity after adjustment for demographic factors and treatment need.

In our primary analysis, we used two-part multivariable regression models to compare treatment disparities between racial-ethnic groups. This analytic approach allowed us to account for the skewness and large number of zeros in the expenditure data (22, 23).

First, access disparities were examined by using logistic regression models to estimate the likelihood that a racial-ethnic group would receive any treatment. Then, treatment use disparities were examined by using generalized linear models (GLMs) to estimate differences in treatment use counts and expenditures conditional on treatment access. For count outcomes, we estimated GLMs with a negative binomial distribution and logit link function. This approach accounts for the overdispersion of the count data (24). When assessing expenditures, we estimated GLMs with a gamma distribution and a log link function. The modified Park test was used to determine the optimal mean-variance relationship (22, 23). In secondary analyses, we employed similar statistical methods and examined racial-ethnic disparities in access and expenditures associated with any mental health treatment. In exploratory analyses assessing the impact of SES on disparity estimates, we reestimated regression models using the RDE definition of health care disparities.

We used the predictive margin method to obtain disparity results in the scales of interest (percentages and means) (25) (see tables in the online supplement for full regression model results). As such, disparities in treatment access rates were reported as the absolute percentage-point difference in the predicted probability of a minority group's receipt of treatment, compared with the baseline predicted probability for White children. Treatment use disparities were reported as the absolute difference in mean number of visits or medication prescription fills or mean expenditures between each minority group and White children.

Variables with missing values, apart from ADHD diagnosis and race-ethnicity, were imputed by using multiple imputation methods. This approach creates five data sets, imputes missing values by using a chained-equations method, analyzes each data set, and uses standard rules to combine estimates and adjust standard errors for the uncertainty attributable to imputation (26, 27). All statistical tests were conducted with a significance level of $p<0.05$. Model estimates were weighted according to sample design and survey nonresponse. All statistical analyses were conducted with Stata, version 16.1 (28).

RESULTS

Unadjusted Comparison of Population Characteristics by Race-Ethnicity

Sample characteristics are presented in Table 1. Compared with White children (N=2,549), on average, Black children (N=1,537) had worse caregiver-rated physical and mental health status and were more likely to live in the South, have public health insurance, and live in households with income below the poverty line. Compared with White children, Hispanic children (N=1,681) had worse caregiver-rated physical and mental health status and lower impairment scores (less severe impairment) and were more likely to live in the West, have public health insurance, and live in households with income below the poverty line. Compared with White children, Asian children (N=71) were more likely to live in the West and more likely to live in high-income households.

Black, Hispanic, and Asian children were less likely than White children to have accessed any ADHD-specific treatment visit, ADHD medication, or any mental health treatment. Compared with White children, children from all minority groups filled fewer ADHD

medication prescriptions, Black children had fewer ADHD-specific visits and lower ADHD-specific visit expenditures, and Black and Hispanic children had lower total mental health treatment expenditures.

IOM-Concordant Racial-Ethnic Disparities in Access and Utilization

As shown in Table 2, the baseline predicted probability of White children with ADHD to have accessed any ADHD treatment visit in the past year was 51%. Children with ADHD from the three minority groups were significantly less likely than White children to have done so: Black children, −15 percentage points ($p<0.001$); Hispanic children, −12 percentage points ($p<0.001$); and Asian children, −21 percentage points ($p<0.01$). Similarly, compared with White children, children from the minority groups were significantly less likely to have filled any ADHD medication prescription: White, predicted probability, 41%; Black, −8 percentage points ($p<0.01$); Hispanic, −11 percentage points ($p<0.001$); and Asian, −30 percentage points ($p<0.001$).

In terms of utilization, for White children, the predicted number of prescription fills for ADHD-related medications was 4.9. Black and Asian children filled fewer such prescriptions, compared with White children: Black, 0.9 fewer ($p<0.05$); Asian, 2.7 fewer ($p<0.01$).

IOM-concordant racial-ethnic disparities were noted in access to and use of treatment for any psychiatric diagnosis. As shown in Table 3, the baseline predicted probability of White children with ADHD to have accessed any mental health treatment in the past year was 66%. Children with ADHD from the three minority groups were significantly less likely than White children to have done so: Black children, −16 percentage points ($p<0.001$); Hispanic children, −14 percentage points ($p<0.001$); and Asian children, −27 percentage points ($p<0.01$). Compared with White children's total past-year expenditures for any mental health treatment (predicted expenditures, $2,459), expenditures for Black children were $484 lower ($p<0.05$), and for Hispanic children, they were $415 lower ($p<0.05$).

RDE-Concordant Racial-Ethnic Disparities in Access and Use

Consistent with IOM-concordant results, children with ADHD from the three minority groups were significantly less likely than White children to have had any ADHD treatment visit or to fill an ADHD medication prescription in the past year (see table in online supplement). In contrast to our IOM-concordant results, the only significant disparity in utilization was between Black and White children: Black children filled significantly fewer ADHD prescriptions.

In terms of utilization of any mental health treatment, consistent with IOM-concordant results, children with ADHD from the racial-ethnic minority groups were significantly less likely than White children to have received any mental health treatment (see table in online supplement). In contrast to the IOM-concordant results, no significant disparities were noted in total mental health expenditures.

DISCUSSION

Using nationally representative data, we examined racial-ethnic disparities in childhood ADHD treatment access and utilization. Our findings suggest that among children with ADHD, there are large and significant disparities in access to treatment but relatively small, nonsignificant or nonexistent disparities in utilization of treatment. In IOM-concordant analyses that adjusted for treatment need, Black, Hispanic, and Asian children with ADHD were significantly less likely than White children with ADHD to have accessed any ADHD treatment visit, ADHD-related medication, or mental health treatment for any psychiatric diagnosis. In exploratory RDE analyses that additionally adjusted for SES, these disparities in access persisted, indicating that although racial-ethnic differences in SES contribute to these disparities, factors more directly related to race-ethnicity, such as discrimination or cultural differences in preferences, also are important barriers to access to care.

When analyses adjusted only for treatment need in IOM-concordant models, disparities in utilization existed, with Black and Asian children filling fewer ADHD medication prescriptions, compared with White children. Black and Hispanic children also had lower total mental health expenditures than did White children. Most of these utilization disparities were no longer significant after adjustment for SES in exploratory RDE analyses. These findings highlight the importance of the methods used to measure disparities and the importance of taking care in deciding whether to adjust for SES and other predictors of health care known to be deeply rooted in historical structural racism (29). Individuals from racial-ethnic minority backgrounds are more likely than White Americans to face barriers, such as the inability to afford care (30), insufficient mental health services in minority neighborhoods (31), and inaccessible treatment options for working caregivers (32, 33). Adjusting for SES may inadvertently diminish the impact of structural racism that is key to understanding racial-ethnic treatment disparities.

In addition to systemic barriers, individual-level factors may contribute to disparities in access to treatment. For example, Black and Hispanic parents have been shown to prefer behavioral treatment to pharmacologic intervention for mental health conditions (34). However, studies have also shown that preferences are highly influenced by an individual’s experiences with health care. One study demonstrated that Black parents received less information from physicians about their child’s ADHD diagnosis than did White parents (35). Additionally, Black children are more likely to be subject to disciplinary action in school, compared with White children, who may instead receive therapeutic intervention for displaying the same behavior (36, 37). In a community-based study in Minnesota, perceived discrimination was associated with underutilization of mental health care among Black and Asian adults (38). Clinicians and educators must recognize their own biases when working with children of different backgrounds and work collaboratively with families to develop solutions that match their unique needs.

This study expands on the previous research on ADHD treatment disparities for Asian children. Previous studies have examined only limited populations, such as commercially insured children (3) and Medicaid-insured children in Kentucky (7). Our findings, using nationally representative survey data, align with the findings of these previous studies,

demonstrating that Asian children with ADHD are less likely to receive any type of treatment, including medication treatment, compared with White, Black, and Hispanic children. Importantly, no disparity was noted in the number of ADHD treatment visits or in ADHD expenditures, suggesting that although Asians with ADHD may take fewer medications, they may still be involved in other forms of treatment, such as behavioral therapy. Future studies may delve deeper into the treatment use patterns of Asian children with ADHD, by using a larger sample to better understand the unaddressed need in this population.

The findings of our study reiterate the need for policy and clinical measures to improve access to mental health treatment for children of minority backgrounds. Behavioral health integration and telemedicine hold promise for expanding access to underserved populations (39). On a broader scale, enforcing mental health parity compliance and expanding Medicaid coverage may improve disparities in both access and utilization. Finally, within health care institutions, continuing the practice of cultural humility is essential, beginning with the universal adoption and prioritization of readily available, high-quality language and interpretation services.

This study had a number of limitations. First, the MEPS does not capture health care treatment preferences. Patient preferences are difficult to capture accurately and are highly influenced by prior health care experiences with discrimination, exploitation, and inaccessible care (40–42). If analyses could adjust for preferences, they might show a clearer picture of disparities resulting from systemic flaws, rather than from individual-level differences. Another limitation of this study was that ADHD diagnosis was based on caregiver report and not verified by clinician evaluation. However, this may have led to more conservative point estimates, because children from racial-ethnic minority populations are less likely to be diagnosed as having ADHD (43). The small sample size of Asian children in the MEPS limited our ability to draw inferences about the national population. Future studies of Asian children may examine the results of other surveys, such as the California Health Interview Survey, that include larger samples of Asian youths living with ADHD. Finally, the MEPS is available only in English and Spanish, limiting participation by individuals who do not speak these languages.

CONCLUSIONS

Black, Hispanic, and Asian children with ADHD were found to access treatment for ADHD and other psychiatric conditions at far lower rates compared with White children with ADHD. Once treatment was initiated, utilization was found to be roughly comparable among racial-ethnic groups. Our findings demonstrate significant remaining care gaps and highlight a need for interventions that aim to improve treatment access among children with ADHD from racial-ethnic minority populations.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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HIGHLIGHTS

- Although past studies have identified racial-ethnic disparities in ADHD treatment, few studies have distinguished between disparities in treatment access and utilization.
- After adjustment for age, sex, and treatment need, Black, Hispanic, and Asian children with ADHD in a nationally representative study were less likely than White children with ADHD to have accessed treatment for ADHD and other psychiatric conditions.
- Once access was gained, treatment utilization was similar across racial-ethnic groups, except that Black and Asian children with ADHD used fewer ADHD medications and Black and Hispanic children with ADHD had lower overall mental health treatment expenditures, compared with their White counterparts.

TABLE 1.

Weighted population characteristics for Black, Hispanic, and Asian children ages 5–17 with attention-deficit hyperactivity disorder (ADHD) (N=5,838)[a]

Variable	White (N=2,549)	Black (N=1,537)	Hispanic (N=1,681)	Asian (N=71)
Dependent variable (all within past year)				
Any ADHD-specific visits (%)	50.6	36.2***	36.5***	32.4**
N of ADHD-specific visits among those with any such visits	3.3	2.3***	2.9	3.8
Any ADHD medication prescription fills (%)	40.3	33.0***	27.4***	16.9***
N of ADHD medication prescription fills among those with any such fills	3.3	2.4***	2.2***	0.8***
ADHD-specific visit expenditures among those with any such visits ($)	466.8	275.8***	415.5	475.7
Any mental health treatment (%)[b]	65.8	50.3***	48.1***	42.3***
Total mental health treatment expenditures among those with any mental health treatment ($)	1,767.7	956.5***	1,024.7***	1,049.9
Demographic characteristic				
Age (years)	12.1	11.9	11.6***	12.6
Female (%)	30.3	30.2	27.6	22.5
Mental health status (%)				
Excellent	30.2	29.9	29.5	29.6
Very good	30.7	22.1***	23.1***	29.6
Good	27.7	29.8	31.6**	28.2
Fair	8.9	14.5***	12.8***	8.5
Poor	2.6	3.7*	3.0	4.2
Physical health status (%)				
Excellent	46.5	42.2**	37.4***	40.9
Very good	29.4	25.3**	26.5*	26.8
Good	18.9	25.0***	27.7***	26.8
Fair	4.4	6.2*	7.1***	2.8
Poor	0.8	1.3	1.3	2.8
CIS score[c]	12.6	12.4	11.5*	9.3
Region of residence (%)				

Variable	White (N=2,549)	Black (N=1,537)	Hispanic (N=1,681)	Asian (N=71)
Northeast	14.9	10.7***	21.6***	8.5
Midwest	31.1	17.8***	13.9***	7.0***
South	37.5	65.5***	33.7*	32.4
West	16.6	6.0***	30.9***	52.1***
Insurance status (%)				
Private only	44.3	15.0***	20.2***	50.7
Public	53.8	83.3***	76.2***	43.7
Other	0.0	0.2	0.1	0.0
Uninsured	1.9	1.5	3.5**	5.6*
Income (relative to federal poverty level)				
<100%	22.6	51.3***	40.8***	16.9
100%–124%	6.2	9.6***	8.8**	4.2
125%–200%	17.6	16.5	20.4*	16.9
200%–399%	27.7	15.8***	20.5***	23.9
≥400%	25.9	6.8***	9.5***	38.0*

[a] Weighted population characteristics, with group means and percentages reported and test results reflecting differences between minority populations and White children as a reference group. Postimputation values shown.

[b] Mental health treatment includes all types of treatment (outpatient, inpatient, and prescription) for any psychiatric diagnosis, including ADHD.

[c] Columbia Impairment Scale. Possible scores range from 0 to 52, with higher scores indicating more severe impairment.

* p<0.05,

** p<0.01,

*** p<0.001.

TABLE 2.

Disparities in past-year attention-deficit hyperactivity disorder (ADHD)–specific treatment access and utilization for Black, Hispanic, and Asian children ages 5–17 with ADHD, relative to access and utilization for White children[a]

		Black		Hispanic		Asian	
Measure	**White (Predicted probability)**	**Disparity**	**95% CI**	**Disparity**	**95% CI**	**Disparity**	**95% CI**
Access[b]							
Any ADHD-related visit	50.9	−15.1***	−20.0, −10.2	−11.5***	−16.2, −6.8	−20.8**	−35.3, −6.3
Any ADHD medication prescription fill	40.6	−7.9**	−13.3, −2.6	−11.0***	−15.1, −6.9	−30.3***	−37.5, −23.1
	M	**Disparity**	**95% CI**	**Disparity**	**95% CI**	**Disparity**	**95% CI**
Utilization (among those with any use)							
N of ADHD-related visits	4.8	0.4	−1.4, 2.2	0.6	−0.6, 1.8	5.6	−3.7, 15.0
N of ADHD medication prescription fills	4.9	−0.9*	−1.7, −0.2	−0.33	−1.2, 0.6	−2.7**	−4.7, −0.8
ADHD-related visit expenditures ($)	686.4	−75.1	−255.3, 105.0	83.1	−99.9, 266.2	781.5	−868.0, 2,431.0

[a]Models adjusted for age, sex, perceived mental health status, perceived physical health status, and Columbia Impairment Scale score, in accordance with the Institute of Medicine definition of health care disparity. Sampling weights and survey nonresponse were taken into account.

[b]For access variables, the disparity values represent the absolute percentage-point difference in the predicted probability of a minority group's receipt of treatment, compared with the predicted probability for White children.

*p<0.05,

**p<0.01,

***p<0.001.

TABLE 3.

Disparities in past-year mental health treatment access and expenditures for Black, Hispanic, and Asian children ages 5–17 with attention-deficit hyperactivity disorder (ADHD), relative to access and expenditures for White children[a]

		Black		Hispanic		Asian	
Measure	**White (Predicted probability)**	**Disparity**	**95% CI**	**Disparity**	**95% CI**	**Disparity**	**95% CI**
Accessing any mental health treatment[b]	66.3	−16.2***	−20.7, −11.6	−14.1***	−18.4, −9.9	−27.2**	−42.4, −11.9
	M	**Disparity**	**95% CI**	**Disparity**	**95% CI**	**Disparity**	**95% CI**
Total mental health treatment expenditures among those with any utilization ($)	2,459.0	−483.8*	−867.9, −99.7	−414.8*	−797.6, −32.0	336.6	−1,363.4, 2,036.6

[a]Mental health treatment includes all types of treatment (outpatient, inpatient, and prescription) for any psychiatric diagnosis, including ADHD. Models adjusted for age, sex, perceived mental health status, perceived physical health status, and Columbia Impairment Scale score, in accordance with the Institute of Medicine definition of health care disparity. Sampling weights and survey nonresponse were taken into account.

[b]Disparity values represent the absolute percentage-point difference in the predicted probability of a minority group's receipt of treatment, compared with the predicted probability for White children.

*p<0.05,

**p<0.01,

***p<0.001.