
Disparities in Adequate Mental Health Care for Past-Year Major Depressive Episodes Among White and Non-White Youth

Pierre K. Alexandre, Mustafa Z. Younis, Silvia S. Martins, and Patrick Richard

Objective: Following efforts made in recent years to have effective mental health treatments based on evidence-based guidelines, a working-definition of a minimum level of 'adequate mental health care (AMHC)' for serious mental illness (SMI) was developed in the literature. However, little is known about racial/ethnic disparities in receipt of adequate mental health care for SMI. The objective of this study was to examine disparities among Whites and non-Whites in receiving adequate mental health care for past-year major depressive episodes (MDE).

Methods: The study sample was 1,688 US youth 12 to 17 years old affected by MDE in the 2005 National Survey on Drug Use and Health. We estimated the percentages of Whites and non-Whites that received adequate mental health care for MDE and estimated the correlates of receipt of adequate mental health care for the full sample and by racial/ethnic groups.

Results: About 34 percent of the sample received adequate mental health care; but separate analyses indicate that a significantly higher proportion of Whites (36 percent) received adequate mental health care relative to non-Whites (28 percent). The odds of receiving adequate mental health care for past-year MDE for Whites were 1.5 times that of non-Whites ($p = 0.01$).

Conclusion: As more adolescents of diverse racial/ethnic backgrounds are identified to access mental health Treatment services, it might be important to examine the degree to which treatment should be tailored to engage and retain specific racial/ethnic groups to get the minimum of adequate mental health care. Key words: *mental health, disparities, access to mental health.*

The advent of the Community Mental Health Centers program in 1963 has led to a shift away from inpatient treatment in favor of community-based services for individuals affected by serious mental illnesses (SMI).¹ More importantly, recent findings indicate a continued overall trend toward greater use of outpatient

mental health care that now accounts for more than 59 percent of the nearly \$12 billion spent in the United States to treat youth affected with mental disorders.² Despite

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the outreach efforts to treat these youths, a large proportion does not receive needed care, and there is particular concern about disparities in access to care across racial/ethnic groups.³ Indeed, studies demonstrate that non-White youth are less likely to receive specialty mental health services than White youth.⁴ Another study showed that among youth who needed mental health care, 47 percent of Blacks and Hispanics had an unmet need, compared to 30 percent of Whites.⁵

Among youth who were suicidal in the past year, Blacks were found 65 percent as likely as Whites and Hispanics 55 percent as likely as Whites to report service use.⁶ Even when youths received treatment for mental health problems, non-Whites made fewer visits than Whites.⁷

An important area that has not been comprehensively investigated is whether racial/ethnic disparities exist in receiving adequate mental health care among youth.

Recently there has been concern about the levels of treatment received by individuals affected by SMIs, and significant efforts have been made to have effective mental health treatments conformable to evidence-based guidelines.⁸ With the increasing involvement of primary care physicians in providing mental health care, the Agency for Health Care Research and Quality developed evidence-based guidelines for the treatment of depression in primary care settings.⁹

The American Psychiatric Association (APA) also developed guidelines for the treatment of depression in specialty mental health settings.¹⁰ On the basis of these guidelines, a working definition of a minimum of adequate mental health care (AMHC) was defined in the literature as:

1. Receipt of a prescribed medication in combination with four or more visits to a psychiatrist, psychologist, general medical doctor, or other medical doctor; or
2. If the individual was not psychotic, receipt of at least eight visits with a mental health specialist.¹¹

Using this definition, this study investigates racial/ethnic disparities in receiving adequate mental health care between White and non-White youth affected by past-year major depressive episodes (MDEs).

The topic is of keen importance since lack of adequate mental health care among youth represents a lost opportunity to intervene and possibly to prevent persistence of psychopathology into adulthood.¹²

This study's framework draws from a well-validated theoretical model, the Andersen's social behavioral model, which posits that differences in health service utilization go beyond possible differences in need of care and enabling factors; and that disparities also relate to demographic characteristics.¹³ Previous studies have offered empirical support for this conceptual framework to analyze disparities in mental health service use.¹⁴ In addition to race/ethnicity, the dataset contains salient predisposing variables, including age and gender.¹⁵ Enabling factors are represented by school enrollment, city residency, yearly household income and health insurance coverage.¹⁶ Need is assessed by respondents' several psychopathological measures, including depression-related impairment severity, past year delinquent behaviors, and substance abuse.¹⁷ Thus, the specific aims of this study are to:

1. Investigate whether racial/ethnic disparities exist between White and non-White youth in receiving adequate mental health care for past-year MDE; and
2. Examine the factors that explain disparities in receiving adequate mental health care between White youth and non-White youth.

We hypothesize that White youths affected by past-year MDE are more likely to receive adequate mental health care compared to non-White youth.

Methods

Data Source and Study Sample

Data for this study were drawn from the 2005 National Survey on Drug Use and Health (NSDUH) conducted since 1971 to provide estimates of substance use in the US civilian population aged 12 and older. The NSDUH questionnaire was redesigned in the 1990s to place a greater emphasis on health status and health care, including access to mental health care.¹⁸ These data have been a useful tool for multi-disciplinary studies.¹⁹ The 2005 NSDUH has an average weighted screening response rate of about 90 percent and a weighted interview response rate of more than 80 percent. The interviews were conducted using a combination of computer-assisted personal interviewing (CAPI), with responses entered by a field interviewer, and audio computer-assisted self-interviewing (ACASI), with responses entered privately by the participant. Details on the survey can be found elsewhere.²⁰ The 2005 NSDUH contains 55,905 records covering equal proportions of 12 to 17 years; 18 to 25 years; and 26 years and older.

The 2005 NSDUH included a “youth depression” module to assess past-year MDE using the diagnostic criteria set forth by the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). MDE was defined as having at least five or more of nine DSM-IV clinical features nearly every day in the same two-week period, where at least one of the features was either a depressed mood or loss of interest or pleasure in daily activities.²¹ Questions were adapted from the depression section of the National Comorbidity Survey-Adolescent (NCS-A), which is based on a modified version of the World Health Organization International Diagnostic Interview—Short Form (CIDI-SF).²²

In addition to good psychometric concordances between CIDI-SF and full CIDI, clinical reappraisal analyses have shown agreement between CIDI diagnoses and independent clinician diagnoses.²³ Moreover, CIDI-SF is recommended to diagnose 12-month MDE in large-scale surveys.²⁴ The sample included 1,688 adolescents aged 12 to 17 years that were classified as affected by MDE in the past year. The racial/ethnic distribution of the study sample was 1,169 (69 percent) Whites/Caucasians and 519 (31 percent) non-Whites (38 percent African-Americans, 60 percent Hispanics, and 2 percent Other racial/Ethnic groups).

Adequate Mental Health Care

Respondents affected with MDE were asked about their treatment experiences for depression during the past year. *Treatment for MDE* is defined as “seeing or talking to a medical doctor or other health professional or taking prescription medication for MDE.” All respondents were asked whether during the past 12 months they received “treatment

or counseling from/at (a) mental health clinic or center; (b) private therapist, psychologist, psychiatrist, social worker, or counselor; (c) in-home therapist, psychiatrist, social worker, or counselor; (d) pediatrician or other family doctor for emotional or behavioral problems that were not caused by alcohol or drugs?" If respondents responded yes to any of the above questions, they were asked about the total number of visits to each of these providers. Other questions inquired about medication use for MDE.

Respondents who indicated they received treatment were said to receive adequate mental health care if:

1. They received a prescription for an appropriate medication for MDE in combination with four or more visits to a psychiatrist, psychologist, general medical doctor, or other medical doctor; or
2. They were not psychotic and they received eight or more visits for depression-related problems with either a psychiatrist or another type of mental health specialist.

This definition is based on evidence-based treatment guidelines that recommend a minimum of four visits for patients receiving medication during the acute and continuation phases for several types of mental disorders, including mood, anxiety, and psychotic disorders.²⁵ In addition, clinical trials found that a minimum of eight sessions are needed with a mental health specialist in the absence of medication.²⁶

Coding of Covariates

The covariate of primary interest in this study is race/ethnicity (White vs. non-White)

as discussed earlier. The other covariates were coded as follows: age (12 to 13 years; 14 to 15 years old; and 16 to 17 years old); gender (girls vs. boys); school enrollment (enrolled vs. not enrolled), city residency (lived in a large metropolitan statistical area or metro; in a small metro; or in a non-metro). We used the Sheehan Disability Scale (SDS) to control for depression symptom severity.²⁷ Analyses found high construct validity and internal consistency reliability for the SDS in assessing psychiatric impairment.²⁸ An index of overall severity level of MDE interference was construed (nil/moderate vs. severe interference).

To control for delinquency behavior, we used an index based on six types of past-year delinquent acts.²⁹ These measures were:

- a. Got into a serious fight at school or at work;
- b. Took part in fight where group fights group;
- c. Carried a handgun;
- d. Attacked someone with intent to seriously hurt him or her;
- e. Sold illicit drugs; and
- f. Stole/tried to steal anything worth more than \$50.

Conduct behaviors counts were grouped into three categories: none; one to two types; and three or more types.³⁰ Measures for alcohol abuse (yes/no) and drug use disorder (yes/no) were included. Finally, we controlled for annual family income (< \$20,000; \$20,000 to \$49,999; \$50,000 to \$74,999; and \$75,000 or more) and health insurance status (no insurance; private insurance; or public insurance (Medicaid/State Children's Health Insurance Program (SCHIP))).

Statistical Analysis

Univariate analyses were used to estimate the percentages of Whites and non-Whites in the sample that received adequate mental health care for MDE. Non-parametric Kruskal-Wallis tests were used to assess the strength of the association between the covariates and receipt of adequate mental health care by race/ethnicity. Multivariable logistic regressions were used to assess the independent effects of race/ethnicity on receipt of adequate of mental health care, adjusting for covariates. Bivariate and multivariate logistic models were later estimated for Whites and non-Whites to examine correlates of receipt of adequate mental health care.

All analyses were conducted using Stata survey (SVY) software, release 9.0.³¹ We used the SVY command, using weights provided in the dataset to adjust for variations in within-household probabilities of selection and for differential non-response.

Results

Race/Ethnicity and Adequacy of Treatment for Depression

Figure 1 shows the characteristics of the sample comprising youth ages 12 to 17 years old affected by past-year MDE, with 34 percent of all youth having received adequate mental health care for MDE. Kwallis

Figure 1. Characteristics of White and Non-White Youth Diagnosed with Past-Year Major Depression Episodes (MDEs) in 2005 National Survey on Drug Use and Health (N = 1,688)

Variable	All (N = 1,688) %	White/Caucasian (N = 1,121; 66.4%) %	Non-White (N = 567; 33.6%) %
Received Minimally Adequate Mental Care	33.6	36.3	27.6
Age in years			
12–13	20.4	19.8	21.3
14–15	35.8	35.1	37.1
16–17	43.8	45.1	41.6
Gender			
Male	25.9	27.9	22.6
Female	74.1	72.1	77.4
School enrollment			
No	2.4	2.2	2.8
Yes	97.6	97.8	97.2
Residency			
Large metro	41.2	36.7	48.8
Small metro	49.0	51.5	44.7

Continued

Figure 1. *Continued...*

Variable	All (N = 1,688) %	White/Caucasian (N = 1,121; 66.4%) %	Non-White (N = 567; 33.6%) %
Non-metro	9.8	11.8	6.5
Depression impairment severity			
Nil/moderate	14.5	13.0	18.9
Severe	85.5	87.0	81.1
Alcohol abuse			
No	92.9	91.7	95.0
Yes	7.1	8.4	5.0
Drug abuse			
No	91.4	90.5	92.8
Yes	8.6	9.5	7.2
Types of conduct behaviors			
None	48.2	49.5	45.9
1–2 types	40.3	39.8	41.1
≥ 3 types	11.5	10.6	13.0
Household income			
Less than \$20,000	18.1	13.1	26.7
\$20,000 to \$49,999	36.9	32.2	45.0
\$50,000 to \$74,999	19.5	23.1	13.5
\$75,000 or more	25.5	31.7	14.8
Health insurance			
No insurance	6.8	5.1	9.8
Private insurance	64.4	73.5	48.8
Medicaid/SCHIP ^a	28.8	21.4	41.5

^a SCHIP: State Children's Health Insurance Program

test of significance differences indicate a higher proportion of Whites (36 percent) received adequate mental health care than non-Whites (28 percent) ($p < 0.001$). Moreover, we found that Whites in the sample mostly lived in small metros and rural areas while non-Whites lived in large metros. A larger proportion of non-Whites are from households making less than \$50,000, while

Whites are mostly from households making over \$50,000. Also a larger proportion of Whites had private insurance while non-Whites were mostly uninsured or had Medicaid/SCHIP.

The results of the associations between race/ethnicity and receipt of adequate mental health care for past-year MDE are presented in Figure 2. In the first model, where race/

Figure 2. Logistic Regressions (Odds Ratios) for Adequacy of Mental Health Care for Past-Year Major Depressive Episodes (MDEs) Among 12- to 17-Year-Olds in the 2005 National Survey on Drug Use and Health (N = 1,688)

Variable	Model 1	Model 2
Race/ethnicity (referent: non-White)		
White/Caucasian	1.50 [1.08–2.08]*	1.55 [1.10–2.17]*
Age (referent: 12–13 years old)		
14–15 years old		1.56 [1.05–2.33]*
16–17 years old		1.36 [0.92–2.01]
Gender (referent: male)		
Female		1.02 [0.75–1.41]
School Enrollment (referent: No)		
Yes		1.81 [0.72–4.52]
Urbanicity (referent : non-Metro)		
Large metro		1.20 [0.70–2.05]
Small metro		1.44 [0.85–2.44]
Depression impairment (referent: nil/moderate)		
Severe		3.31 [2.35–4.66]**
Alcohol abuse (referent: No)		
Yes		0.84 [0.49–1.46]
Drug dependence (referent: No)		
Yes		1.60 [0.97–2.61]
Number of delinquent behaviors (referent: none)		
1–2		1.10 [0.81–1.48]
3–6		1.23 [0.76–1.99]
Household income (referent: < \$20,000)		
\$20,000 to \$49,999		0.69 [0.44–1.08]
\$50,000 to \$74,999		0.89 [0.53–1.50]
≥ \$75,000		0.94 [0.57–1.58]
Health insurance (referent: no insurance)		
Private insurance		1.62 [0.91–2.90]
Medicaid/SCHIP ^a		2.14 [1.20–3.83]**

Notes: 95% CI in brackets; * Statistically significant, $p < 0.05$; ** Statistically significant, $p < 0.01$

^a SCHIP: State Children's Health Insurance Program

ethnicity was entered alone, the results indicate that the odds of receiving adequate mental health care for Whites was 1.50 times that of non-Whites (OR = 1.50; $p = 0.01$). In the second model, which included the control variables, the effect of race/ethnicity did not change (OR = 1.55; $p = 0.01$). We also found that respondents who were 14 to 15 years old were more likely to receive adequate mental care relative to those 12 to 13 years old (OR = 1.56; $p < 0.02$). Severe impairment due to depression symptoms increased the odds of receiving adequate mental health care relative

to nil/moderate impairment (OR = 3.31; $p < 0.0001$). Medicaid/SCHIP increased the odds of receiving adequate mental health care relative to no insurance (OR = 2.14; $p < 0.01$).

Correlates of Adequacy of Treatment for Depression, by Race/Ethnicity—Whites

The crude associations indicate that the odds of receiving adequate mental health care were higher for youth ages 14 to 15 years relative for the 12 to 13 years old (*see* Figure 3). Severe depression-related impairment, drug abuse, and Medicaid/SCHIP

Figure 3. Characteristics of White (N = 1,121) and Non-White Youth (N = 567) Diagnosed with Past-Year Major Depression Episodes (MDEs) in 2005 National Survey on Drug Use and Health

Variable	White/Caucasian OR [CI]	Non-White OR [CI]
Age in years		
12–13	1.0	1.0
14–15	1.60 [1.03–2.48]*	1.47 [0.66–3.26]
16–17	1.26 [0.82–1.94]	1.46 [0.71–3.04]
Gender		
Male	1.0	1.0
Female	1.02 [0.74–1.44]	1.00 [0.53–1.88]
School enrollment		
No	1.0	1.0
Yes	2.56 [0.93–7.08]	0.97 [0.28–3.35]
Residency		
Not in metro	1.0	1.0
Large metro	0.93 [0.55–1.60]	1.79 [0.55–5.80]
Small metro	1.18 [0.55–2.01]	1.75 [0.56–5.46]
Depression impairment severity		
Nil/moderate	1.0	1.0
Severe	3.49 [2.32–5.25]**	3.09 [1.63–5.84]**

Continued

Figure 3. Continued ...

Variable	White/Caucasian OR [CI]	Non-White OR [CI]
Alcohol abuse		
No	1.0	1.0
Yes	1.61 [0.96–2.72]	0.14 [0.04–0.51]**
Drug abuse		
No	1.0	1.0
Yes	1.74 [1.07–2.83]*	2.83 [0.98–8.21]
Types of conduct behaviors		
None	1.0	1.0
1–2 types	1.00 [0.73–1.34]	1.52 [0.79–2.96]
≥ 3 types	1.25 [0.77–2.05]	2.12 [0.97–4.64]
Household income		
Less than \$20,000	1.0	1.0
\$20,000 to \$49,999	0.67 [0.41–1.09]	0.63 [0.32–1.23]
\$50,000 to \$74,999	1.01 [0.61–1.70]	0.63 [0.23–1.71]
\$75,000 or more	1.02 [0.63–1.65]	0.32 [0.11–0.96]*
Health insurance		
No health insurance	1.0	1.0
Private insurance	1.89 [0.91–3.91]	1.46 [0.61–3.45]
Medicaid/SCHIP ^a	2.79 [1.29–6.04]**	1.66 [1.08–3.94]*

Notes: 95% CI in brackets; * Statistically significant, $p < 0.05$; ** Statistically significant, $p < 0.01$

^a SCHIP: State Children’s Health Insurance Program

Figure 4. Logistic Regressions (Odds Ratios) for Adequacy of Mental Health Care for Past-Year Major Depressive Episodes (MDEs) Among 12- to 17-Year-Olds in the 2005 National Survey on Drug Use and Health by Race/Ethnicity

Variable	White/Caucasian (N = 1,121)	Non-White (N = 567)
Age (referent: 12–13 years old)		
14–15 years old	1.69 [1.08–2.62]*	1.55 [0.65–3.68]
16–17 years old	1.31 [0.84–2.02]	1.99 [0.85–4.67]
Gender (referent: male)		
Female	0.96 [0.67–1.36]	1.47 [0.73–2.98]

Continued

Figure 4. *Continued ...*

Variable	White/Caucasian (N = 1,121)	Non-White (N = 567)
School enrollment (referent: No)		
Yes	3.06 [0.99–9.43]	1.16 [0.30–4.45]
Residence (referent: non-Metro)		
Large metro	0.96 [0.54–1.68]	2.40 [0.67–8.68]
Small metro	1.28 [0.73–2.21]	2.57 [0.73–9.31]
Depression impairment (referent: nil/moderate)		
Severe/very severe	3.65 [2.41–5.51]**	3.55 [1.88–6.75]**
Alcohol abuse (referent: No)		
Yes	1.22 [0.68–2.19]	0.05 [0.01–0.31]**
Drug abuse (referent: No)		
Yes	1.51 [0.90–2.56]	2.36 [0.66–8.44]
Number of delinquent behaviors (referent: none)		
1–2	0.94 [0.67–1.30]	1.77 [0.93–3.41]
3–6	0.81 [0.47–1.41]	3.40 [1.42–8.12]**
Household income (referent: < \$20,000)		
\$20,000 to \$49,999	1.01 [0.53–1.92]	0.55 [0.27–1.14]
\$50,000 to \$74,999	1.39 [0.68–2.82]	0.44 [0.15–1.23]
≥ \$75,000	1.80 [0.92–3.55]	0.22 [0.07–0.72]*
Health insurance (referent: no insurance)		
Private insurance	1.61 [0.76–3.43]	1.65 [0.70–3.92]
Medicaid/SCHIP ^a	2.87 [1.33–6.19]**	1.89 [1.03–3.52]*

Notes: 95% CI in brackets; * Statistically significant, $p < 0.05$; ** Statistically significant, $p < 0.01$
^a SCHIP: State Children's Health Insurance Program

increased the odds of receiving adequate mental health care for MDE. With the exception of drug abuse, these variables continued to be significant in the multivariable logistic models of adequate mental health care (see Figure 4). White youth 14 to 15 years old were more likely to receive adequate mental health care relative to White youth 12

to 13 years old (OR = 1.69; $p = 0.02$). The odds of receiving adequate mental health care increased for respondents who reported severe depression-related impairment compared to those who reported nil/moderate impairment (OR = 3.65; $p < 0.001$). White youth who had Medicaid/SCHIP were more likely to receive adequate mental health care

than White youth who had no insurance (OR = 6.5; $p < 0.005$).

Correlates of Adequacy of Treatment for Depression, by Race/Ethnicity—Non-Whites

The results are also presented in Figures 3 and 4. The crude estimates indicate that severe depression-related impairment and Medicaid/SCHIP increased the odds of receiving adequate mental health care while drug abuse and being from a household making over \$75,000 per year reduced the odds of receiving adequate mental health care. Controlling for other covariates, we found that alcohol abuse increased the odds of receiving adequate mental health care (OR = 0.05; $p < 0.001$). Similar to findings from the White subsample, the odds of receiving adequate mental health care increased for non-Whites who reported severe impairment relative to non-Whites who reported nil/moderate impairment (OR = 3.55; $p < 0.001$). Non-White youth with more than 3 types of delinquent behaviors were more likely to receive adequate mental health care compared to those who reported no delinquent behaviors (OR = 3.40; $p < 0.006$). Also, non-Whites from households making over \$75,000 had lower odds of receiving adequate mental health care compared to non-Whites from households making below \$20,000 (OR = 0.23; $p < 0.02$). Medicaid/SCHIP increased the odds of receiving adequate mental health care compared to no insurance (OR = 1.89; $p < 0.05$).

Discussion

This study examined disparities in receiving adequate mental health care between White youth and non-White youth affected

by past-year MDE. Thirty-four percent of all youth in the sample received adequate mental health care. Our results are slightly lower than the 39 percent found for individuals 15 to 54 years who received mental health care for SMI in the National Comorbidity Survey.³² Separate analyses conducted for Whites and non-Whites indicate that 36 percent of Whites received adequate mental care compared to 28 percent of non-Whites. Logistic regressions indicate that Whites were 1.5 times as likely to receive adequate mental health care as non-Whites. While previous research has not extensively examined racial/ethnic disparities in receiving adequate mental health care for depression using this working definition of a minimum of “adequate mental care”³³ our results are consistent with findings indicating even when minorities engage in mental services, they are more likely to make only a small number of visits to their providers.³⁴

Several plausible explanations of our findings exist in the literature. Previous research indicates that presentation and interpretation of symptoms of mental disorders might differ according to race/ethnicity.³⁵ It is thus possible that cultural and ethnic factors specifically related to mental health care constituted barriers to appropriate care for non-Whites.³⁶ In addition, minorities generally mistrust the traditional care system and use more alternative treatment outside the health care system, such as pastoral and family counseling.³⁷ All of these factors could reduce the likelihood that non-White youth would use an antidepressant prescription or return for a visit,³⁸ which could also explain racial/ethnic differences in adequate mental health care found in the study.

Regardless of race/ethnicity, having Medicaid/SCHIP significantly increased the odds of receiving adequate mental care for past-year MDE. From a public policy standpoint, this finding indicates that public medical insurance is an important tool for increasing receipt of adequate mental health care for youth. Financing for mental disorders has not increased commensurately with the rise in the numbers of youth affected by mental disorders.³⁹ Medicaid/SCHIP benefits for treatment of mental disorders vary widely across states and the emphasis is often on acute care services rather than on the relapsing condition of mental illness.⁴⁰ As the financing burden continues to shift from the private to the public sector, new research is needed to examine the effects of publicly funded insurance on the effectiveness of service delivery systems for adolescents with mental disorders.

Consistent with previous studies identifying impairment severity associated with mental disorder symptoms as significant determinant of mental health care utilization,⁴¹ the results found that regardless of race/ethnicity, youth who reported severe depression-related impairment were more likely to receive adequate mental health care. It is noteworthy that while other variables explained differences among White and non-White youth in bivariate analyses, when we control for other covariates, many of these variables failed to explain treatment adequacy. This is in line with the literature indicating associations between predisposing factors such as a child's age, gender, and residency and treatment for mental problems are not consistent across studies.⁴² Similar inconsistent results also exist for

substance abuse in the literature on mental health care utilization.⁴³

The results from this study should be interpreted in light of its limitations. First, the present study is based on cross-sectional data and thus it is difficult to conclude that factors associated with receiving adequate mental health care are related causally. Second, the study used the "explicit mental health care" utilization concept, a relatively restricted definition of use that includes only those services directly related to youth behavioral/emotional problems.⁴⁴ Third, we investigated receipt of adequate mental health care in the "formal" outpatient settings. As noted earlier, minority frequently seek help for psychological problems from non-professional sectors, such as church and family, which could not be captured by the present study.⁴⁵ Finally, as with all self-report studies, there is also the possibility of recall bias. The NSDUH procedures are designed to maximize honesty and recall and studies that examined the validity of data collected for the NSDUH found that the use of ACASI and CAPI methods produce more valid results than other self-report methods.⁴⁶

Conclusion

The present study investigated and found racial/ethnic disparities in receiving adequate mental health care for past-year MDEs. Previous research found racial/ethnic disparities in mental health care for mental disorders.⁴⁷ As more adolescents of diverse racial/ethnic backgrounds are identified to access mental health treatment services, more study is needed about the degree to which treatment should be tailored to engage and retain racial/ethnic groups.

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