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Research paper

Ethnic and racial differences in mental health service utilization for suicidal ideation and behavior in a nationally representative sample of adolescents

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ABSTRACT

Background: This study examined racial/ethnic differences in mental health treatment utilization for suicidal ideation and behavior in a nationally representative sample of adolescents.
Method: Data were drawn from the National Survey on Drug Use and Health. Participants included 4176 depressed adolescents with suicidal ideation and behavior in the previous year. Weighted logistic regressions were estimated to examine whether adolescent racial/ethnic minorities had lower rates of past-year treatment for suicidal ideation and behavior in inpatient or outpatient settings, while adjusting for age, depressive symptom severity, family income, and health insurance status.
Results: Among adolescents with any suicidal ideation and behavior, and suicide attempts specifically, non-Hispanic blacks and Native Americans were less likely than whites to receive outpatient treatment, and multiracial adolescents were less likely to be admitted to inpatient facilities. Apart from Hispanics, racial/ethnic minorities were generally less likely to receive mental health care for suicidal ideation, particularly within psychiatric outpatient settings. A pattern emerged with racial/ethnic differences in treatment receipt being greatest for adolescents with the least severe suicidal ideation and behavior.
Limitations: The cross-sectional data limits our ability to form causal inferences.
Conclusion: Strikingly low rates of treatment utilization for suicidal ideation and behavior were observed across all racial/ethnic groups. Certain racial/ethnic minorities may be less likely to seek treatment for suicidal ideation and behavior when symptoms are less severe, with this gap in treatment use narrowing as symptom severity increases. Native Americans were among the racial/ethnic groups with lowest treatment utilization, but also among the highest for rates of suicide attempts, highlighting the pressing need for strategies to increase mental health service use in this particularly vulnerable population.

1. Introduction

Suicide is the third leading cause of death for children and adolescents aged 10–24, and as of 2015, it accounts for approximately 4600 deaths each year in the United States (Centers for Disease Control and Prevention, 2015). The risk of first onset for suicidal ideation and behavior increases dramatically at the beginning of adolescence and remains high into young adulthood, with a peak in suicidal behavior at age 16 (Nock et al., 2008; Skegg, 2005). This spike in suicidal ideation and behavior in adolescence makes it a critical developmental period for intervention and treatment efforts. More generally, the grave and irreversible nature of death by suicide makes adolescent suicidal behavior an important clinical and public health issue.

Previous findings in adult research have shown that as many as 56% of suicidal ideators and 39% of suicide attempters do not seek specialty mental health treatment in the past 12 months (Kessler et al., 2005). Additionally, consistent with the adult literature, 67.3% of adolescent suicidal ideators and 56.9% of adolescent suicide attempters have not received specialty mental health treatment in the past 12 months (Husky et al., 2012). These findings showcase a significant lack of treatment utilization for suicidal thoughts and behavior.

In adults, an important predictor of failure to receive care for suicidal ideation and behavior is race/ethnicity. Particularly, racial and ethnic minorities are least likely to seek out specialty mental health treatment, with one recent study finding that 59.7% of black, non-Hispanic suicidal ideators, 61.6% of Hispanic suicidal ideators, and 84.1% of Asian or Pacific Islander suicidal ideators do

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not receive treatment (Ahmedani et al., 2012). Yet, for adolescents, much less is known about treatment use differences among racial/ethnic groups. Past research has, however, documented racial/ethnic differences in rates of suicidal behavior among these groups. In particular, suicide attempt and death rates are highest among Native American youth (Miller et al., 2012). Additionally, Hispanic youths show higher rates of suicidal ideation and attempted suicide than non-Hispanic youths, and suicide rates for African-American youths have increased in recent years (Cash and Bridge, 2009; Bridge et al., 2006).

The current study examined racial/ethnic differences in mental health treatment utilization for suicidal ideation and behavior in a nationally representative sample of adolescents. Several recent studies utilizing the same data set have similarly examined racial/ethnic differences in treatment utilization for other psychiatric conditions, but none to date have investigated such trends with respect to suicidal ideation and behavior in this age group (Alegria et al., 2011, 2012; Cummings et al., 2011, 2014; Cummings & Druss, 2011). We also assessed whether racial/ethnic patterns of disparity in mental health service utilization differed at different severities of suicidal ideation and behavior (i.e., suicidal ideation versus suicide attempts). This study further adds to the existing literature by providing an analysis of treatment receipt specifically for suicidal ideation and behavior across a variety of mental health settings, including both inpatient and outpatient. By focusing specifically on treatment use for suicidal ideation and behavior in the context of racial/ethnic groups, this study adds to the limited literature on cultural considerations for treatment specifically for suicidal ideation and behavior in youths (Goldston et al., 2008). Additionally, the current study's focus on treatment use specific to suicidal ideation and behavior holds critical clinical importance. Given the very high-risk nature of adolescent suicidal ideation and behavior, as well as its high comorbidity with other manifestations of psychopathology (Nock et al., 2013), it is particularly clinically important to determine if suicidal ideation and behavior, rather than comorbid presentations, end up being the primary focus of treatment. The size of the sample in the current study provides a unique opportunity and sufficient power to detect differences in service use across a wide range of racial/ethnic groups (i.e., non-Hispanic whites, Hispanics, non-Hispanic blacks, Asians and Pacific Islanders, Native Americans, and multiracial adolescents).

2. Methods

2.1. Data Source and study sample

Data were drawn from National Survey on Drug Use and Health (NSDUH) for the years 2004–2013. The NSDUH is a nationally representative survey conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) annually to assess the prevalence of substance use and disorders. The sample uses a multi-stage area probability sampling design with participants aged 12 and older within all 50 states and the District of Columbia. In order to increase precision estimates of youth participants, African-Americans and Hispanics, these groups were intentionally oversampled. Participants include individuals living in households, shelters, half-way houses, group homes, rooming or boarding houses, college dormitories, and military bases. The sample in the current study was restricted to adolescents aged 12–17 who met DSM-IV criteria (American Psychiatric Association, 2000) for major depressive disorder and suicidal ideation and behavior in the past 12 months (unweighted n=4176).

2.2. Procedure

Interviewers administered all study items using computer assisted personal interviewing (CAPI) and audio computer-assisted self-interviewing (ACSSI), which provides participants with privacy to answer potentially sensitive questions (e.g. those related to suicidal ideation and behavior) and those regarding illegal behaviors (e.g. illicit substance use). This method of data collection has been associated with increased openness in responses regarding sensitive topics (Turner et al., 1998).

2.3. Study variables

Major depressive episodes (MDEs) in the past 12 months were assessed using items drawn from the depression section of the National Comorbidity Survey-Replication Adolescent Supplement (NCS-A) (Kessler et el., 2009). Suicidal ideation, plans, and attempts were assessed within the context of the past-year MDE. The instrument assessed suicidal ideation ("Did you think about killing yourself?"), suicide plans ("Did you make a plan to kill yourself"), and suicide attempts ("Did you make a suicide attempt or try to kill yourself"). The adolescents were instructed to answer these questions in reference to the time of their past-year depressive episode. These items were adapted from the World Health Organization Composite International Diagnostic Interview-Short Form (CIDI-SF) (Kessler et al., 1998). This instrument has been found to demonstrate adequate validity (Kessler et al., 2009). Specifically, the CIDI and the Schedule for Affective Disorders and Schizophrenia of School-Age Children (K-SADS; Kaufman et al., 1997) have been found to yield comparable lifetime prevalence rates for major depression in the NCS-A (17.7% in the CIDI and 17.5% in the K-SADS), and the concordance rate between the two instruments is high ($\kappa=0.74$).

Mental health treatment utilization for suicidal ideation and behavior in the past 12 months was assessed across a variety of treatment settings. In particular, psychiatric inpatient treatment was defined by two items inquiring about staying overnight or longer in a hospital and/or residential treatment center for suicidal ideation and/or behavior. Psychiatric outpatient treatment was ascertained with four items regarding receipt of service from a partial day hospital or day treatment program, mental health clinic or center and/or a therapist, psychologist, social worker, or counselor for suicidal ideation and/or behavior.

2.4. Data analysis

A series of multivariate logistic regression analyses were conducted to assess racial/ethnic differences in mental health treatment utilization for suicidal ideation and behavior. Specifically, these analyses were conducted in among suicidal ideators and suicide attempters, separately, with inpatient and outpatient treatment, respectively, as the criterion variables. To avoid potentially confounding milder forms with more severe forms of suicidal ideation and behavior (e.g., the possibility that an observed effect for suicidal ideation is better accounted for by the presence of suicide attempters in the analysis), adolescents who attempted suicide have been excluded from the analyses involving suicidal ideators, leaving a subsample of "pure" ideators (i.e., ideators who did not attempt suicide). Health insurance status (private insurance, Medicaid, other insurance, uninsured), family income ($<$\$20,000, \$20,000 to \$50,000, \$50,000 to \$75,000, $>$ \$75,000), age, sex, and depressive symptom severity were included as covariates in all analyses. All analyses were conducted using weighting procedures to accommodate the complex sampling frame of the survey (Substance Abuse and Mental Health Services Administration, 2014).

3. Results

3.1. Sample characteristics

Among adolescents in the study sample, the racial/ethnic composition was: 60.7% non-Hispanic white, 12.2% non-Hispanic black, 21.1% Hispanic, 3.2% Asian, Hawaiian, and Pacific Islander, 0.7% Native American, and 2.2% multiracial. The average age in this sample was 14.6 years (SE = 0.04), and 68.9% were female. The percentage of depressed adolescents who attempted suicide in the most recent 12 months ranged from 8.6% among non-Hispanic blacks to 18.5% among Native American and 20.1% among multiracial adolescents. Mental health service utilization from any source was very low across all racial/ethnic groups, falling below 10% for suicidal ideators, and below 50% for suicide attempters. Similarly, outpatient utilization was less than 10% in the case of ideators and 40% among attempters. Inpatient service utilization was below 1% for ideators and 15% for attempters.

Sociodemographic characteristics of the study sample according to race/ethnicity are presented in Table 1. Relative to non-Hispanic whites, a higher proportion of non-Hispanic black and Hispanic participants were female ($ps < 0.05$). All racial/ethnic minorities, with the exception of Asian, Hawaiian, and Pacific Islanders, tended to be overrepresented in the lower income brackets and underrepresented in the upper income brackets relative to non-Hispanic whites ($ps < 0.05$). Mirroring this pattern, all racial/ethnic minorities, again with the exception of Asian, Hawaiian, and Pacific Islanders, were less likely to have private insurance and more likely to be on Medicaid than were non-Hispanic whites ($ps < 0.05$). Hispanics were also more likely to be uninsured compared to non-Hispanic whites ($p < 0.001$).

3.2. Multivariate associations between race/ethnicity and mental health treatment for suicidal ideation and behavior

Several racial/ethnic differences emerged among adolescents with suicidal ideation and behavior in terms of mental health service utilization. These differences were robust, remaining significant after controlling for insurance, age, depressive symptom severity, gender, and family income. Among adolescents with "pure" suicidal ideation (i.e., ideators who did not attempt suicide), Asian and Pacific Islander adolescents were significantly less likely to receive inpatient treatment for suicidal ideation and behavior than non-Hispanic white adolescents. The adjusted odds ratio for non-Hispanic white adolescent suicidal ideators receiving inpatient treatment for suicidal ideation and behavior was approximately 10 times that of Asians and Pacific Islanders. Further, among suicidal ideators, racial/ethnic minority adolescents were generally less likely to receive outpatient treatment for suicidal ideation and behavior than non-Hispanic white adolescents (adjusted $OR_{Black} = 0.4$, adjusted $OR_{Native\ American} = 0.2$, adjusted $OR_{Asian\ and\ Pacific\ Islander} < 0.1$, and adjusted $OR_{multiracial} = 0.3$). These results are detailed in Table 2. Again, these differences remained

Table 2
Multivariate associations of race/ethnicity with mental health treatment for suicidal ideation and behavior among adolescents with suicidal ideation[d] (unweighted n = 3,449).

Variable	Inpatient Treatment for Suicidality Odds Ratio (95% CI)	Outpatient Treatment For Suicidality Odds Ratio (95% CI)
Race/Ethnicity		
Non-Hispanic Black	0.53 (0.09–3.07)	0.37 (0.17–0.83)*
Native American[e]	–	0.19 (0.06–0.63)**
Asian, Hawaiian and Pacific Islander	0.06 (0.01–0.50)**	0.03 (0.01–0.13)***
Hispanic	1.17 (0.23–5.86)	0.55 (0.30–1.02)
Multiracial[e]	–	0.27 (0.09–0.80)*
Non-Hispanic White (reference)	1.00	1.00
Insurance		
Medicaid	2.04 (0.49–8.48)	1.06 (0.67–1.68)
Other	1.22 (0.16–9.15)	0.74 (0.27–1.99)
Uninsured	2.84 (0.24–33.64)	0.44 (0.21–0.89)
Private (reference)	1.00	1.00
Age	1.25 (0.93–1.67)	1.06 (0.95–1.19)
Depressive Symptoms	1.15 (0.80–1.64)	1.22 (1.06–1.39)**
Sex		
Female	0.88 (0.24–3.15)	0.79 (0.52–1.18)
Male (reference)	1.0	
Family Income		
< $20,000	0.43 (0.04–4.11)	1.07 (0.63–1.80)
$20,000 to $50,000	0.72 (0.84–6.18)	0.74 (0.27–1.99)
$50,000 to $75,000	1.81 (0.38–8.63)	0.44 (0.21–0.89)*
> $75,000 (reference)	1.00	1.00

Note: Each column represents a separate multivariate logistic regression model.
* p < 0.05,
** p < 0.01,
*** p < 0.001, CI = confidence interval
[d] Excluding participants with suicide attempts
[e] As none of the participants within these racial/ethnic groups received inpatient treatment for suicidal ideation, odds ratios were not computed.

Table 1
Sociodemographic characteristics of the total study sample (unweighted n = 4176).

Characteristics	Total Sample	Non-Hispanic White	Non-Hispanic Black	Native American	Asian, Hawaiian or Pacific Islander	Hispanic	Multiracial
Female	68.89%	67.37%	74.25%*	53.38%	54.95%	72.26%*	73.92%
Age, mean (SE)	14.64 (0.04)	14.69 (0.05)	14.54 (0.10)	14.95 (0.26)	14.49 (0.18)	14.56 (0.08)	14.60 (0.31)
Family Income							
< $20,000	17.32%	10.92%	36.74%***	39.46%***	14.51%	23.19%***	27.46%**
$20,000 to $50,000	32.97%	28.42%	40.89%***	28.04%	30.78%	42.19%***	30.82%
$50,000 to $75,000	19.06%	20.36%	14.29%*	27.57%	21.56%	17.38%	19.44%
> $75,000	30.65%	40.31%	8.08%***	4.93%***	33.15%	17.25%***	22.28%**
Insurance							
Private	62.28%	73.54%	40.22%***	15.70%***	72.26%	42.67%***	57.08%**
Medicaid	27.25%	18.14%	49.32%***	62.72%***	17.97%	41.20%***	28.43%*
Other	3.78%	3.58%	6.24%	20.74%***	3.00%	2.05%	7.98%
Uninsured	6.70%	4.74%	4.22%	0.84%	6.78%	14.08%***	6.51%

Note: SE = Standard Error. Non-Hispanic white served as the reference group in all comparisons.
* p < 0.05
*** p < 0.001
** p < 0.01

Table 3
Multivariate associations of race/ethnicity with mental health treatment for suicidal ideation and behavior among adolescent suicide attempters (unweighted n=656).

Variable	Inpatient Treatmentfor Suicidality Odds Ratio (95% CI)	Outpatient TreatmentFor Suicidality Odds Ratio (95% CI)
Race/Ethnicity		
Non-Hispanic Black	1.03 (0.35–2.97)	0.40 (0.18–0.91)*
Native American	1.84 (0.23–14.66)	0.06 (0.01–0.37)**
Asian, Hawaiian and Pacific Islander	0.37 (0.05–2.86)	0.44 (0.13–1.51)
Hispanic	1.16 (0.44–3.01)	0.66 (0.32–1.35)
Multiracial	0.09 (0.01–0.69)*	0.49 (0.19–1.25)
Non-Hispanic White (reference)	1.00	1.00
Insurance		
Medicaid	0.71 (0.36–1.41)	1.74 (0.95–3.18)
Other	0.59 (0.07–4.74)	0.41 (0.10–1.62)
Uninsured	0.33 (0.05–2.50)	1.07 (0.32–3.58)
Private (reference)	1.00	1.00
Age	1.14 (0.93–1.39)	1.00 (0.88–1.13)
Depressive Symptoms	1.06 (0.81–1.39)	1.03 (0.81–1.31)
Sex		
Female	0.53 (0.21–1.29)	0.95 (0.58–1.57)
Male (reference)	1.00	1.00
Family Income		
< $20,000	0.69 (0.27–1.78)	0.51 (0.24–1.08)
$20,000 to $50,000	0.52 (0.21–1.25)	0.64 (0.35–1.19)
$50,000 to $75,000	1.18 (0.47–3.00)	0.62 (0.31–1.25)
> $75,000 (reference)	1.00	1.00

Note: Eatch column represents a separate multivariate logistic regression model.
***p < 0.001, CI=confidence interval
* p < 0.05,
** p < 0.01,

significant after controlling for insurance, age, depressive symptom severity, gender, and family income.

Among adolescents with the most severe suicidal ideation and behavior, specifically suicide attempters, racial/ethnic differences again were detected with respect to mental health service utilization (see Table 3). These differences also remained significant after controlling for insurance, age, depressive symptom severity, gender, and family income. In this subsample, multiracial adolescent suicide attempters were significantly less likely to receive inpatient treatment for suicidal ideation and behavior than non-Hispanic whites. The adjusted odds ratio for non-Hispanic white adolescent suicide attempters receiving inpatient treatment for suicidal ideation and behavior was approximately 10 times that of multiracial adolescent suicide attempters. Non-Hispanic black and Native American adolescent suicide attempters were also significantly less likely to receive outpatient treatment for suicidal ideation and behavior than non-Hispanic whites. The adjusted odds ratios for non-Hispanic white adolescent suicide attempters receiving outpatient treatment for suicidal ideation and behavior were approximately 2.5 times and approximately 10 times that of non-Hispanic blacks and Native Americans, respectively.

4. Discussion

This study examined racial/ethnic differences in mental health treatment utilization for suicidal ideation and behavior in a nationally representative sample of suicidal adolescents. The current findings revealed low rates of treatment utilization for suicidal ideation and behavior among adolescents across all racial/ethnic groups. Specifically, among adolescent suicide attempters, less than 50% were receiving any treatment specific for suicidal ideation and behavior from any source over the last 12 months, and this figure dropped below 10% for adolescents with suicidal ideation without attempts; these trends were seen across all racial/ethnic groups. Although the results of the current study were specific to treatment for suicidal ideation and behavior, they were consistent with prior research that has found that 67.3% of adolescents with suicidal ideation, and 56.9% with an attempt did not have any contact with a mental health specialist in the past year (Husky et al., 2012). Additionally, racial/ethnic discrepancies in severity of suicidal ideation and behavior as it relates to treatment utilization emerged. Among suicidal ideators (those who purely have suicidal thoughts, without exhibiting any suicidal behavior), racial/ethnic minorities were generally less likely to receive outpatient treatment for their suicidal ideation and behavior than non-Hispanic white adolescents. A less pronounced difference was observed for those with high severity suicidal ideation and behavior, namely suicide attempters. Specifically, only multiracial adolescent attempters were less likely to receive inpatient treatment for suicidal ideation and behavior compared to non-Hispanic white adolescents, and only non-Hispanic black and Native American adolescents were less likely to receive outpatient treatment for suicidal ideation and behavior.

Collectively, these findings indicated that racial/ethnic differences in treatment receipt were most pronounced for adolescents with the least severe suicidal ideation and behavior. These findings may mean that certain racial/ethnic groups may be less inclined than white non-Hispanic adolescents to seek treatment for suicidal ideation and behavior when symptoms are less severe, and that this gap in treatment receipt may decrease as symptom severity increases. This delayed treatment seeking has been seen in racial/ethnic minorities for other health conditions, both mental health-related including alcoholism, and physical health-related including myocardial infarction (Johnson et al., 2000; Moser et al., 2006). This lag in treatment receipt has significant public health implications as delay in treatment seeking may hinder or even prevent effective early interventions. An alternative explanation for this discrepancy could be potential referral bias: some health providers themselves may be less likely to treat, or refer for treatment, minority adolescents with suicidal ideation.

The patterns of treatment utilization for suicidal Native Americans were particularly noteworthy. For both ideators and attempters, Native Americans were among the racial/ethnic groups with the lowest treatment use, but also among the highest for rates of suicide attempts. Specifically, only 12.1% of adolescent Native American suicide attempters received treatment from any source. However, Native American adolescents had the second highest rate of suicide attempts (behind only multiracial adolescents), with 18.5% making attempts in the last 12 months. Consistent with this finding, prior research has found that the highest rates of deaths by suicide to be among Native Americans (Johnson et al., 2000). This concerning discrepancy between suicidal behavior and treatment utilization revealed that adolescents who are in greatest need of treatment for suicidal ideation and behavior are also the least likely to receive it.

There are several possible factors that may account for these disparities in treatment utilization for suicidal ideation and behavior among racial/ethnic groups. Although the analyses in this study controlled for socioeconomic status and health insurance, access to care may still be hindered by other factors. For parents with children who wish to seek mental health treatment, many structural barriers have been reported that preclude access to care. Particularly, parents reported the following barriers to mental health services for their children: help being too expensive, services being too inconvenient, services being too far away, not knowing where to get help, having no way to get access services, and long waits for appointments (Owens et al., 2002). It may be

possible that some of these structural barriers are magnified for certain racial/ethnic groups (Scheppers et al., 2006). Further, a paucity of bilingual and bicultural mental health practitioners in treatment facilities has been suggested to hinder minority treatment seeking (Snowden et al., 2006). A lack of education about treatment resources and limitations in their availability may also factor into low rates of treatment receipt. Attitudinal barriers, such as stigma about seeking or receiving mental health care, may also be more prevalent in certain racial/ethnic groups; this trend has been observed in immigrant black and Latina women (Nadeem et al., 2007). Cultural attitudes about mental health, particularly the often-stigmatized topic of suicidal ideation and behavior and their treatment, may contribute to low rates of treatment utilization.

Insofar as structural barriers account for disparities in treatment utilization, deliberate efforts should be made to ensure suicide treatment is available and accessible to racial/ethnic minorities. For example, novel uses of technological advancements such as telepsychiatry or the delivery of psychiatric services via interactive video conferencing and e-mental health treatments such as providing mental health services through the internet or phone may have potential to increase accessibility to care (McGinty et al., 2006). To the extent that attitudinal barriers are responsible for racial/ethnic differences in treatment utilization, diffusing cultural stigma regarding suicide and treatment is imperative. Specific efforts to educate parents about adolescent suicidal ideation and behavior are critical given that adolescents are often dependent on their caregivers to facilitate their treatment seeking and receipt.

It is also important to note that the low rates of treatment utilization for adolescent suicidal ideation and behavior observed in the current study cannot be attributed to an absence of available treatments or standard of care (American Academy of Child and Adolescent Psychiatry, 2001). Indeed standard care for suicidal ideation and behavior includes both the acute management of suicidal behavior. Adolescents who are at imminent risk to their own safety are admitted to an inpatient unit until level of suicidal ideation has stabilized. The clinician must determine whether there will be adequate supervision and support after discharge from the hospital, and if these conditions are met, and the patient has stabilized, treatment for the underlying disorders commences. Typical treatments for mental disorders associated with suicidal behavior include cognitive behavioral therapy (CBT), dialectical behavior therapy (DBT), and interpersonal therapy for adolescents (IPT-A).

Several limitations of this study should be noted. First, the current study is cross-sectional, and thus cannot address the temporal relation between suicidal ideation and behavior and treatment utilization across the different racial/ethnic groups. However, our findings are of clinical importance regardless of the temporal relation between suicidal ideation and behavior and treatment utilization. That is, at-risk minorities may be less likely to receive treatment, and so are at greater risk for progressing to engaging in suicidal behavior. Our findings are also consistent with the possibility that adolescent who have already engaged in suicidal behavior are less likely to receive treatment, which places them at greater risk for recurrent suicidal ideation and behavior. Second, limitations of language may be observed as NSDUH was conducted in only English and Spanish so other non-English-speaking populations may be excluded from this sample. However, in a series of sensitivity analyses with interview language covaried, the results were essentially unchanged (results available upon request). Third, the data do not include detailed information about outpatient treatment, including both number and type of sessions patients attended. Fourth, due to methodological limitations, inclusion criteria were limited only to participants who with major depression in the past 12 months, and thus further research is required to determine the generalizability of current findings to suicidal adolescents without clinically significant depression. Fifth, the data do not include information about potential factors that could explain racial/ethnic differences in service use including nativity, immigration status, knowledge and stigma concerning mental health treatment, and geographic access to providers. Future research should assess these potential underlying mechanisms of low treatment utilization for suicidal ideation and behavior. Sixth, it should be noted that, despite the large overall sample and its nationally representative nature, the number of Native Americans in the current study is small. We were still able to detect large effect sizes at a statistically significant level in analyses involving this racial group. However, it is important for future studies to replicate this finding with larger numbers of Native Americans. Seventh, it is important to note that the measure of treatment focus is derived from participant report, meaning it is conceivable that some participants may receive treatment for suicidal ideation and behavior but not report it. Specially, it is possible that suicidal ideation and behavior might arise over the course of treatment, and participants may instead choose to report the initial reason for treatment rather than subsequently occurring suicidal ideation and behavior. However, it is equally important to note that, in the current study, participants were not asked an open-ended question as to what was the focus of their treatment. Rather, participants were explicitly asked whether they had received treatment specifically for suicidal ideation or behavior. Furthermore, as part of several evidence-based psychotherapies, such as CBT, a standard part of initial sessions is psychoeducation, which invariably include a discussion of the focus of treatment. Collectively, these considerations were likely to have minimize underreporting of suicidal ideation and behavior being a focus of treatment. Nonetheless, drawing on multiple respondents in future research (e.g., clinicians and parents) would likely minimize this possibility further still.

Despite these limitations, this study revealed strikingly low rates of treatment utilization for suicidal ideation and behavior for adolescents across all racial/ethnic groups. Additionally, significant treatment receipt differences among racial/ethnic groups emerged, with minority adolescents receiving less treatment specific to suicide compared to white non-Hispanic adolescents. Due to the potentially lethal nature of suicidal behavior, these low treatment utilization rates have important public health implications. Development and implementation of more accessible treatment programs may increase treatment utilization. Education of adolescents and their families about treatment options may also improve treatment receipt rates. Future research should seek to better understand the underlying societal and cultural factors that contribute to racial/ethnic disparities in the use of services for suicidal ideation and behavior.

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