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Comparing Racial/Ethnic Differences in Mental Health Service Use Among High-Need Subpopulations Across Clinical and School-Based Settings

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Abstract Racial/ethnic differences in mental health service use among adolescents in clinic and school settings for three high-need populations are examined. Results indicate no racial/ethnic differences in school-based use contrasted with significant differences in clinical settings. Schools may be critical avenues for reduction of unmet mental health need among racial/ethnic minorities. © 2010 Society for Adolescent Health and Medicine. All rights reserved.

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Racial/ethnic minority children and adolescents are more likely than whites to have unmet need for mental health services [1, 2]. To better explicate differences in the unmet need of minority adolescents, differences in service utilization should be examined for those with mental health problems within specific settings. Outside the medical sector, the school has been identified as an important setting in which to deliver mental health services to this population because of the potential to overcome barriers such as cost, transportation, and stigma associated with services in clinical settings [3, 4]. However, no known study has assessed and compared the extent to which racial/ethnic differences in unmet need for mental health services exist in school settings versus clinical settings. Several studies have examined racial/ethnic differences in mental health services across multiple settings without delineating whether these differences exist in clinical and school settings [1, 2]. When service use across these distinct settings was examined separately, racial/ethnic differences in mental health service use were examined for the population at large rather than for those with mental health problems [5, 6]. Our study is the first empirical analysis to examine racial/ethnic differences in adolescent mental health counseling use separately for clinical and school settings among subgroups with high levels of mental health need.

Data and Methods

Data come from the first wave (1994–1995) of the National Longitudinal Study of Adolescent Health, a nationally representative school-based sample of 20,745 adolescents in grades 7–11. After excluding individuals without sampling weights (n = 1,821) and individuals missing information on key variables (outcome variable, n = 43; basic demographics, n = 34), a primary analytic sample of 18,847 adolescents was derived. Missing values on other variables were handled using multiple imputation.

Two dichotomous outcome measures were created for adolescents who reported receiving any psychological or emotional counseling in a clinical setting (private doctor's office, community health clinic, and/or hospital) or a school setting within the previous 12 months. Race/ethnicity is measured with five mutually exclusive categories (white,

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Table 1
Comparison of weighted descriptive statistics for adolescents in three high-need samples to full sample

	Full sample (N = 18,847)	High depressive symptoms (N = 2,004)[a]	Suicidal thoughts (N = 2,498)[b]	High delinquency index (N = 2,378)
	Mean (S.E.)/proportion	Mean (S.E.)/proportion	Mean (S.E.)/proportion	Mean (S.E.)/proportion
Outcome variables				
Any counseling in clinical setting	6.8%	14.6%	16.7%	14.1%
Any counseling in school setting	4.5%	9.9%	9.4%	7.2%
Predisposing characteristics				
Age	15.4 (.12)	15.9 (.12)	15.6 (.12)	15.4 (.12)
Male	50.8%	44.0%	40.4%	64.9%
Race				
White	66.8%	59.5%	69.2%	64.2%
Hispanic	12.0%	15.9%	12.1%	15.2%
Black	15.8%	19.0%	13.2%	15.5%
AAPI	3.6%	3.7%	3.7%	3.0%
Other race/ethnicity	1.7%	2.0%	1.8%	2.0%
Enabling characteristics				
Family income				
<$15,000	18.9%	26.1%	19.2%	21.1%
$15,000–$30,000	18.2%	19.8%	18.1%	19.3%
$30,000–$45,000	19.7%	19.0%	20.4%	19.4%
$45,000–$60,000	15.6%	13.5%	15.3%	14.6%
$60,000+	27.7%	21.5%	26.9%	25.6%
Maximum of resident parent(s) education				
Less than high school	12.4%	19.1%	11.6%	14.1%
High school graduate	27.5%	30.1%	26.7%	26.8%
Some college	30.5%	28.7%	32.4%	29.9%
College graduate	29.6%	22.1%	29.3%	29.2%
Insurance status				
Private insurance	72.2%	60.5%	71.3%	69.3%
Public insurance (Medicaid/Medicare)	10.9%	17.7%	10.8%	13.6%
Other insurance	4.0%	4.3%	3.9%	3.2%
Uninsured	12.9%	17.5%	14.0%	13.9%
Lives with two biological parents (1 = yes)	54.6%	40.6%	50.0%	42.8%
Transportation reported as a barrier to receiving needed health care (1 = yes)	1.5%	4.7%	4.2%	2.9%
Rural setting (1 = yes)	15.4%	15.8%	15.9%	13.0%
Other language spoken at home (1 = yes)	7.6%	10.6%	6.3%	6.7%
Need characteristics				
Mental health				
Depressive symptoms (0–54)	10.9 (.13)	26.5 (.17)	17.3 (.27)	15.0 (.28)
Suicidal thoughts in past year (1 = yes)	13.3%	42.5%	–	31.4%
Suicide attempt in past year (1 = yes)	4.0%	16.2%	30.1%	12.4%
Delinquency scale (0–45)	4.2 (.08)	7.3 (.25)	7.5 (.22)	15.3 (.19)
Substance use				
Alcohol use past year (1 = yes)	48.0%	64.0%	67.3%	80.9%
Marijuana use in past 30 days (1 = yes)	14.7%	28.4%	28.0%	46.2%
Other drug use in past 30 days (1 = yes)	5.6%	14.1%	15.8%	23.1%
Physical health				
Self-rated health fair/poor (1 = yes)	7.0%	18.3%	12.6%	11.0%
Miss school at least once per week due to physical or emotional health (1 = yes)	4.7%	14.8%	8.5%	8.9%
Miss social activity at least once per week due to physical or emotional health (1 = yes)	2.3%	8.8%	5.4%	4.7%

[a] Roberts et al.'s cutoff scores for likely cases of depression are based on the 20-item CES-D. Because Add Health has an 18-item version of the CES-D, the total scale score was augmented by multiplying the mean item response by 20 to allow for comparisons to these cutoff scores.

[b] 827 adolescents are in both of the subgroups with high depressive symptoms and suicidal thoughts.

Table 2
Weighted logistic regressions examining racial/ethnic differences in mental health counseling use for adolescents in high-need subsamples

	Service use in clinical setting						Service use in school setting					
	Model 1			Model 2			Model 3			Model 4		
	Without language			With language			Without language			With language		
	OR	95% CI		OR	95% CI		OR	95% CI		OR	95% CI	
High depressive symptoms (N = 2004)												
Hispanic[a]	.88	.53	1.46	1.07	.59	1.91	1.13	.62	2.09	.88	.47	1.64
Black[a]	.65	.39	1.07	.63	.38	1.04	.78	.42	1.45	.80	.43	1.49
AAPI[a]	.18[b]	.05	.63	.20[c]	.06	.71	1.09	.39	3.11	.92	.35	2.41
Other race/ethnicity[a]	.06[d]	.01	.21	.06[d]	.01	.22	.57	.18	1.75	.54	.17	1.69
Other language spoken at home[e]	–	–	–	.56	.20	1.58	–	–	–	1.73	.95	3.12
Suicidal thoughts (N = 2,498)												
Hispanic[a]	.52[b]	.33	.82	.68	.42	1.08	1.28	.67	2.44	1.13	.59	2.17
Black[a]	.44[b]	.26	.75	.43[b]	.25	.73	.94	.52	1.70	.95	.52	1.71
AAPI[a]	.32[c]	.12	.87	.37	.13	1.02	1.07	.50	2.30	.96	.47	1.99
Other race/ethnicity[a]	.25	.06	1.02	.27	.07	1.15	1.09	.30	3.94	1.06	.29	3.81
Other language spoken at home[e]	–	–	–	.35[c]	.13	.93	–	–	–	1.47	.82	2.64
High delinquency score (N = 2,378)												
Hispanic[a]	1.10	.69	1.76	1.43	.86	2.37	1.02	.57	1.81	1.07	.56	2.02
Black[a]	.34[d]	.19	.62	.33[d]	.18	.61	1.23	.63	2.42	1.23	.63	2.40
AAPI[a]	.74	.23	2.36	.84	.26	2.70	1.44	.68	3.03	1.48	.69	3.15
Other race/ethnicity[a]	.53	.12	2.27	.57	.13	2.40	1.13	.38	3.34	1.16	.39	3.43
Other language spoken at home[e]	–	–	–	.29[c]	.10	.84	–	–	–	.86	.39	1.90

All regressions control for measures listed in Table 1.
[a] Omitted reference category: Non-Hispanic white.
[b] $p < .01$.
[c] $p < .05$.
[d] $p < .001$.
[e] Omitted reference category: English spoken at home.

Hispanic, black, Asian American and Pacific Islander [AAPI], and other). Control measures for predisposing, enabling, and need characteristics are presented in Table 1 [7]. The measures of mental health need include several dichotomous indicators as well as two scales: an 18-item version of the Center for Epidemiologic Studies Depression Scale (CES-D; $\alpha = .86$) [8], and a delinquent behavior index created by summing the response categories for involvement in 15 different behaviors such as stealing, getting into a physical fight, or selling drugs ($\alpha = 0.84$).

Weighted logistic regressions are estimated for the three following high-need subsamples: [1] adolescents whose Center for Epidemiologic Studies Depression Scale scores meet the cutoff established by Roberts et al (22+ for males, 24+ for females) to identify likely cases of major depressive disorder and dysthymia (N = 2,004) [9], [2] adolescents who reported seriously thinking about committing suicide within the past 12 months (N = 2,498), and [3] adolescents whose scores on the delinquent behavior index exceed one standard deviation above the mean (N = 2,378). To assess whether language accounts for any observed racial/ethnic differences in service use across settings, two model specifications are used: [1] a model that does not control for language, and [2] a model that controls for whether a language other than English is spoken at home.

Results and Discussion

The most important finding to emerge is the lack of racial/ethnic differences in school-based service use contrasted with significant racial/ethnic differences in clinic-based service use among these high-need populations. Compared to whites, blacks have significantly lower odds of receiving clinical counseling among those with suicidal thoughts and a high delinquent behavior index, AAPIs have significantly lower odds of receiving clinical counseling among those with high depressive symptoms and suicidal thoughts, and Hispanics have significantly lower odds of receiving clinical counseling among those with suicidal thoughts (Table 2). In contrast, no racial/ethnic differences in counseling service use are observed in the school setting. This pattern highlights the role that schools could play in reducing racial/ethnic disparities in unmet need by providing a setting for mental health services in which cultural and socioeconomic barriers for minority adolescents may be more easily addressed [3, 10].

This study also highlights the importance of examining racial/ethnic differences in clinical service use separately for specific mental health problems. For high depressive symptoms and suicidal thoughts, the study's findings support previous research reporting greater unmet need for mental

health services among AAPIs [1, 11]. However, the nonsignificant finding for AAPIs with a high delinquent behavior index evinces the notion of differential help-seeking across racial/ethnic groups conditional on the type of mental health need. One possible explanation for this pattern of findings is that cultural barriers to clinical counseling use among AAPIs such as the fear of shame and loss of face may have a greater effect on the help-seeking process for internalizing mental health problems than externalizing mental health problems.

The relationship between language and service use is most prominent in clinical settings, but inconsistent across high-need samples. Adolescents who speak a language other than English at home have lower odds of receiving clinical counseling among those with suicidal thoughts and a high delinquency index, but not among those with high depressive symptoms. Additionally, the inclusion of language does not change the findings for race/ethnicity among those with a high delinquency index, but it accounts for the significant difference in clinical counseling use among Hispanic and AAPIs with suicidal thoughts. While language could be a proxy for navigational barriers that Hispanic and AAPI families face, language could alternatively be a proxy for cultural beliefs that dissuade Hispanic and AAPI adolescents with suicidal thoughts from seeking counseling in clinical settings.

Several study limitations are noted. First, it is difficult to establish causality in these relationships because the data are cross-sectional. Also, it is not possible to ascertain the nature or type of the mental health counseling received in either setting. Finally, while the data are more than a decade old, there is no compelling reason to believe that the relationships of interest would have changed over time. In spite of these limitations, this study highlights the crucial role that schools can play in reducing racial/ethnic differences in unmet need for mental health services among adolescents. Policy makers should consider investing greater resources in school-based mental health programs as a mechanism to improve access to needed services for racial/ethnic minority adolescents.

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