

Perceived Mental Health Treatment Need and Substance Use Correlates Among Young Adults

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Objectives: The relationship between perceived need for mental health treatment, reasons for not receiving care, substance use, and race and gender among young adults was examined to identify barriers to mental health care. **Methods:** Data from the 2010 National Survey on Drug Use and Health for 14,718 adults ages 18 to 23 were used. Logistic regression analysis compared substance use among young adults with perceived mental health treatment need grouped by race and gender. **Results:** A total of 7.6% of young adults wanted mental health treatment but did not receive care. Persons with perceived treatment need were more likely than recipients of treatment to smoke cigarettes, use marijuana, meet criteria for marijuana abuse or dependence, and engage in binge drinking, after analyses controlled for income and health insurance. White males with perceived need were 3.2 times more likely to smoke and to meet criteria for marijuana abuse or dependence and were 2.6 times more likely to engage in binge drinking. Hispanic males were 2.9 times more likely to smoke and meet criteria for marijuana abuse or dependence. White females were 1.7 times more likely than other subgroups to perceive need for mental health care. **Conclusions:** Young adults with perceived mental health treatment need are at high risk of substance abuse and dependence. Results support targeting knowledge and attitudes surrounding mental health services by race-ethnicity and gender to improve willingness to receive care. (*Psychiatric Services* 64:871–877, 2013; doi: 10.1176/appi.ps.201200159)

Approximately 15% of adults in the United States receive mental health services in any given year (1). However, mental health issues often go unaddressed, with young adults being more likely to forgo needed treatment. This situation is of particular concern, given that the onset of nearly three-fourths of all

lifetime psychiatric disorders occurs by age 24 (2). Recent findings from the National Survey on Drug Use and Health (NSDUH) noted that individuals in the 18–25 age range were less likely than older adults to receive treatment or counseling for mental health problems in the past year. Yet they were more likely to

perceive an unmet need for treatment or counseling for mental health problems, even if they had received treatment in the past year (3). It appears that young adulthood is a critical period that presents even greater challenges in accessing and receiving mental health services.

Of particular interest is that treatment of mental disorders may have implications for the prevention of substance use disorders. A cost-analysis study found that the link between the treatment of mental disorders and lowered risk of substance abuse as a secondary outcome is becoming clearer, even though direct intervention for mental disorders may not be a cost-effective way to prevent substance dependence (4). A recent ten-year follow-up study (5) provided more dramatic results: a strong connection between mental disorders at baseline and later onset of substance use, including nicotine, alcohol, and other drugs. These findings connect mental disorders to later substance use and suggest that treatment of mental disorders lowers the likelihood of later substance abuse. However, the literature suggests that many individuals who feel they need treatment do not seek professional help. In exploring the reasons why people do or do not seek treatment, a new study found two distinct groups, one with low perceived need for treatment and mild illness and one with high perceived need for treatment and moderate to severe symptoms (6). Both

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groups included individuals who sought but did not receive treatment. Factors that hinder individuals from seeking or receiving treatment include socioeconomic status (2,7,8), gender (9), age, race (10,11), and attitudes or beliefs about mental health treatment (6).

Stigma has been a long-standing barrier to mental health treatment. In fact, the Surgeon General's report on mental health (1) stated that, "Stigma erodes confidence that mental disorders are valid, treatable health conditions." A recent study using data from the National Comorbidity Survey Replication illustrated that among persons with a mental disorder, low perceived need for treatment and attitudinal and evaluative barriers, such as stigma, were common reasons for not seeking mental health treatment (6). Furthermore, attitudinal and evaluative barriers were named as reasons for not initiating and continuing mental health treatment as commonly as structural barriers, such as financial costs and transportation (6). Along the same lines, a literature review by Gulliver and colleagues (12) found that stigma was the most cited barrier to seeking mental health treatment, followed by confidentiality and trust. The confidentiality barrier may go hand in hand with stigma, given that individuals may worry about breaches of confidentiality because of the stigma associated with mental illness. It appears that the role of stigma in seeking mental health services operates through gender and culture differentially and that this complex interaction may also depend on the type of disorder. For example, stigma plays a larger role in the treatment of adolescents for depression than for attention-deficit hyperactivity disorder (13).

Racial and ethnic disparities in health care are pronounced, and mental health care is no exception. Generally speaking, African Americans and Hispanics are less likely than their white counterparts to receive treatment for reported mental health conditions from either their general practitioner or mental health professionals and to utilize pharmacotherapies and psychotherapy (11,14,15). A variety of explanations may account

for these disparities, including differences in socioeconomic status, cultural perceptions of mental health, and perceived need for services. Cummings and Druss (16) found that among a subset of 7,704 individuals who had experienced a major depressive episode in the past year, blacks, Hispanics, and Asians were less likely than non-Hispanic whites to receive treatment from a medical provider or to attend any outpatient mental health visits, even after the study controlled for socioeconomic status and health insurance status. These findings suggest that racial differences are attributable to more than socioeconomic status.

Chow and colleagues (10) examined racial differences regarding pathways to mental health services. They found that members of racial-ethnic minority groups were significantly more likely than whites to utilize emergency and inpatient hospitalization for psychiatric problems and to be mandated, for example, by court order, to receive mental health services. Whites were more likely to be self-referred to treatment or referred by family and friends.

Gender also appears to play a role in mental health care utilization. Gonzales and colleagues (9) found that among 5,887 respondents in the National Comorbidity Survey, males were significantly more likely than females to report negative attitudes toward mental health treatment. In another national sample (N=34,356), Hauenstein and associates (17) noted that men were less likely than women to receive mental health care services. Age may also play a role in how perceived need for mental health services influences initiating action to receive services. A study by Mojtabai and colleagues (6) illustrated that among persons who perceived a need for mental health treatment, middle-aged and young adults cited barriers such as stigma and cost more commonly than older adults, suggesting that younger adults may be at greater risk of not receiving mental health treatment even when they perceive a need for it.

The study reported here examined relationships between perceived mental health treatment need, reasons for

not receiving care, and substance use in an effort to better identify barriers to care among young adults. For the current investigation, the widely accepted health belief model (18) was adopted as the overarching theoretical framework to explore group differences regarding mental health service utilization. Briefly, the health belief model (19) posits that health behaviors are influenced by the interaction between personal beliefs or perceptions surrounding a condition—including seriousness, susceptibility, perceived benefits, and perceived barriers—and modifying factors—such as race, age, culture, and socioeconomic status—that can alter individual perceptions. The driving research questions for this study were, What are young adults' perceptions of mental health treatment? How do perceptions differ by gender and race-ethnicity? and To what degree is treatment need related to substance use? Given our theoretical framework and research questions, it was hypothesized that perceptions of mental health treatment need would vary by race-ethnicity and gender and would be associated with higher rates of substance use.

Methods

Study data were from the 2010 NSDUH, a multistage area probability sample sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The NSDUH uses in-person interviews with a national probability sample of 68,487 persons to estimate drug use in the United States. Because estimates yielded by NSDUH are based on sample survey data rather than on complete data for the entire population, all data are weighted to obtain unbiased estimates for survey outcomes in the population represented by the 2010 NSDUH. All estimates are weighted by using the "final analysis weight" for the full sample (20). Strategies for ensuring high rates of participation resulted in a screening response rate of 88.8% and an interview response rate of 74.7%. Respondents were assured that their identities and responses would be handled in strict compliance with federal law. Each respondent

Table 1Characteristics and substance use among 14,718 adults ages 18 to 23, by racial-ethnic and gender subgroup^a

Subgroup	Total	Use in past month		Marijuana abuse or dependence	Binge drinking past year	Insurance coverage	Household income >\$50,000
		Cigarettes	Marijuana				
White							
Male	29.4	41.3	25.8	7.4	53.9	76.0	38.7
Female	30.6	36.2	16.4	4.0	38.1	80.8	33.6
Black							
Male	6.3	32.0	23.6	9.5	30.1	69.4	21.8
Female	7.2	20.7	15.6	4.1	20.5	78.1	14.8
Hispanic							
Male	8.4	33.7	19.9	7.5	42.9	52.0	26.0
Female	8.9	20.9	12.1	4.2	27.5	67.2	21.7

^a Data, in percentages, are from the 2010 National Survey on Drug Use and Health. Percentages do not add to 100 because data about participants from Native American, Pacific Islander, multiple race, and Asian racial-ethnic subgroups are excluded.

who completed a full interview was given a \$30 cash payment as a token of appreciation for his or her time. For our study, we used respondent data from participants ages 18 to 23 years old, resulting in a sample of 14,718 individuals.

Variables

All measures were derived from the NSDUH items. We used two variables as covariates to control for the effects of demographic characteristics on perceived treatment need and substance use. Household income was chosen as a covariate to control for socioeconomic status, a characteristic that has been shown to be related to mental health care utilization as well as to substance use. Income was encoded in four categories: less than \$20,000, \$20,000 to \$49,000, \$50,000 to \$74,000, and \$75,000 or more. We also incorporated a variable capturing insurance coverage. The insurance variable was encoded as coverage or no coverage for mental health treatment. A variable integrating characteristics of gender and race-ethnicity encoded six subgroups: male, white, and not Hispanic; female, white, and not Hispanic; male, black, and not Hispanic; female, black, and not Hispanic; male and Hispanic; and female and Hispanic. Because we were interested in specifying specific subgroup effects, we eliminated the “other” racial-ethnic category, a seventh subgroup used by SAMHSA that combines racial-ethnic groups as well as gender, making specificity

impossible. The limited number of participants within the “other” racial-ethnic subgroup (Native American, Pacific Islander, multiple race, and Asian) who endorsed needing mental health treatment was too small to consider for analyses. When these small cells were divided by gender, it became even more untenable analytically, even when all these groups were combined into an “other” category. For example, eight Asian males and 13 Asian females and five Native American males and 18 Native American females endorsed treatment need.

Use of cigarettes and marijuana was dichotomized as 0, indicating no use in the past month, and 1, indicating use in the past month. Marijuana abuse or dependence was captured by using the NSDUH dependence variable based on the criteria listed in *DSM-IV*. Abuse or dependence was dichotomized into 0, indicating no abuse or dependence in the past 12 months, and 1, indicating abuse or dependence in the past 12 months. Binge drinking was dichotomized into 0, indicating no binge drinking in the past 12 months, and 1, indicating binge drinking in the past 12 months. The National Advisory Council of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) recommends that researchers and clinicians adopt a common, biologically based definition of binge drinking (21). It has defined binge drinking as consumption of five standard drinks by a man or four standard drinks by

a woman in a relatively brief (approximately two-hour) period. This level of alcohol consumption would lead to a blood alcohol concentration of .08—the legal limit for intoxicated driving in all 50 states—for the typical adult (21).

The variable of key interest assessed young adults’ perceptions of treatment need. The variable was derived from the item, “During the past 12 months, was there any time when you needed mental health treatment or counseling for yourself but didn’t get it?” This variable was dichotomized into 0, indicating no, and 1, indicating yes.

Analytical approach

Descriptive statistics were used to examine participant characteristics, substance use, type of mental health treatment, perceived treatment need, and reasons for not receiving treatment by gender and race-ethnicity. All tests of hypotheses were two-sided and used an alpha level of .05. Logistic regression analyses were used to calculate the adjusted odds ratios and 95% confidence intervals for each subgroup’s risk of treatment need and correlates of substance use. We then tested the risk of use of cigarettes and marijuana, marijuana abuse or dependence, and binge drinking among members of each subgroup who did or did not receive treatment.

Results

Table 1 shows the participants’ substance use by gender and race. White

Table 2

Reasons for not receiving treatment among 1,114 adults with mental health treatment need, by racial-ethnic and gender subgroup^a

Subgroup	Cost	Handle problem without help	Not know where to go	Fear of being committed	Neighbors' opinion	Would not help	Privacy	Convenience	Effect on job	No insurance
Total	42.7	29.7	18.5	15.6	14.4	14.2	11.2	9.6	5.8	5.2
White										
Male	40.4	30.2	16.9	15.6	18.2	16.0	10.7	7.8	9.3	4.2
Female	44.3	31.2	18.8	16.4	14.8	14.2	12.3	10.6	5.9	6.0
Black										
Male	34.6	11.5	3.8	3.8	23.1	7.7	7.7	1.9	7.7	7.7
Female	35.4	27.8	19.0	12.7	8.9	13.9	8.2	11.4	0	4.5
Hispanic										
Male	60.8	29.4	15.7	7.8	9.8	13.7	6.9	5.9	3.9	5.9
Female	38.1	26.3	22.0	18.6	12.7	11.9	11.0	8.5	3.4	3.8

^a Values are in percentages.

males reported more cigarette use, slightly more marijuana use, and more binge drinking compared with the other groups. Black males were more likely to meet criteria for marijuana abuse or dependence. Higher proportions of males than females reported substance use in all categories except binge drinking. White females engaged in this behavior in higher pro-

portions than all groups save for white and Hispanic males.

Across all groups, 11.6% of young adults received treatment, with the largest percentage (4.9%) receiving medication only, followed by a combination of medication and outpatient treatment (3.2%), outpatient treatment (2.4%), and inpatient care (.2%). Overall, 7.6% of young adults wanted mental health treatment or counseling but didn't receive care. Females in general were more likely than males to receive treatment, and the proportion of white females receiving treatment (18.3%) was the highest of any subgroup. Females were more likely than males to perceive a need for treatment, with 11.3% of white females, 9.0% of Hispanic females, and 7.6% of black females endorsing this item.

Table 2 displays reasons given by the subgroups for not receiving mental health treatment. Across all subgroups, cost of treatment was the top reason for not receiving treatment (42.7%), followed by being able to handle problems without help (29.7%) and not knowing where to go for treatment (18.5%). Reasons varied significantly by race and gender. Black males, in particular, showed a pattern of responses different from the other groups. Although black males cited cost most often as the reason for not receiving treatment, only 3.8% attributed a lack of treatment to not knowing where to go, and the percentage reporting concern

about the stigma of treatment was the highest of any group (23.1% versus 14.4% for the sample overall).

Table 3 provides results for logistic regression models of the relative risk of perceived treatment need by subgroup. All models included covariates of income and health insurance. Increased income and having mental health insurance reduced the risk of perceived treatment need. White females were 1.7 times as likely to perceive a need for treatment compared with all other subgroups, after the analyses controlled for income and health insurance coverage. Conversely, the subgroups of males were less likely than other subgroups to perceive a need for treatment, with black males being the least likely to perceive treatment need.

Table 4 displays the results of logistic regression models that tested the relative risk of substance use among subgroups of young adults with perceived treatment need. The risk of cigarette use was 3.2 times higher among white males and 2.9 times higher among Hispanic males compared with all other subgroups. White males had 1.8 times greater risk of marijuana use than all other subgroups. The risk of marijuana abuse or dependence was 3.2 times higher among white males and 2.9 times higher among Hispanic males compared with other subgroups. Finally, white males had 2.6 times greater risk and white females had 1.8 times greater risk of binge drinking than all other subgroups.

Table 3

Odds of perceived mental health treatment need among 14,718 adults ages 18 to 23^a

Characteristic	Adjusted OR	95% CI
Subgroup		
White		
Male	.72**	.56–.92
Female	1.66***	1.32–2.08
Black		
Male	.42***	.27–.64
Female	1.03	.76–1.40
Hispanic		
Male	.56**	.40–.79
Female	1.23	.94–1.63
Income (reference: <\$50,000)	.87*	.75–.99
No health insurance (reference: health insurance)	.83**	.72–.95

^a Data for Native American, Pacific Islander, multiple race, and Asian racial-ethnic subgroups are excluded. The reference group for each subgroup is all other subgroups.

*p<.05, **p<.01, ***p<.001

Table 4

Odds of substance use among adults who reported mental health treatment need (N=1,114) or receipt of treatment (N=1,700)^a

Variable	Cigarette use past month		Marijuana use past month		Marijuana abuse or dependence		Binge drinking past year	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
White								
Male								
Treatment need	3.21**	1.39–7.43	1.83*	1.07–3.13	3.15**	1.36–7.29	2.57***	1.55–4.25
Treatment	1.13	.76–1.67	1.25	.82–1.89	1.06	.60–1.88	1.69**	1.14–2.50
Female								
Treatment need	1.67	.71–3.66	1.12	.68–1.85	1.55	.68–3.53	1.84**	1.16–2.93
Treatment	.97	.67–1.40	.70	.47–1.04	.53*	.30–.93	1.09	.75–1.57
Black								
Male								
Treatment need	2.61	.76–8.97	.91	.35–2.40	2.55	.74–8.75	.75	.30–1.89
Treatment	.93	.48–1.79	1.05	.52–2.12	1.49	.62–3.60	.97	.50–1.88
Female								
Treatment need	1.80	.65–4.98	1.06	.54–2.10	1.76	.64–4.87	1.01	.53–1.91
Treatment	.42**	.24–.74	.77	.42–1.39	.80	.35–1.84	.46*	.26–.83
Hispanic								
Male								
Treatment need	2.92*	1.04–8.21	.93	.42–1.53	2.91*	1.03–8.19	1.72	.87–3.42
Treatment	.81	.43–1.49	.81	.41–1.60	.89	.35–2.26	1.35	.73–2.49
Female								
Treatment need	1.43	.54–3.80	.89	.43–1.53	1.42	.54–3.76	1.16	.65–2.05
Treatment	.77	.48–1.26	.68	.39–1.17	.99	.49–2.03	.84	.52–1.38

^a No treatment need is the reference group for treatment need, and no treatment is the reference group for receipt of treatment.

* $p < .05$, ** $p < .01$, *** $p < .001$

Discussion

This study examined substance use correlates by race and gender among a nationally representative sample of young adults who perceived themselves as needing mental health treatment but who did not receive care. The findings provide insight into young adults' mental health needs and correlated substance use behaviors and, therefore, can inform mental health services research and specific public health solutions. For example, the reasons for not receiving care ranged from fairly predictable to surprising, and they varied by gender and race. The most commonly cited reason for not receiving care was cost, with Hispanic males citing this reason most often. It appears that this reason is a direct and fairly potent barrier to receiving care, given that it was reported consistently across all subgroups and was reported two to seven times more often than any other reason, making it by far the most commonly cited reason for not receiving care. Surprisingly, having no insurance coverage was the least cited

reason for not receiving care across all subgroups. Based on this finding, it would seem that income would be a stronger predictor of receiving care than insurance coverage. We controlled for both of these covariates in our analyses, and both had about the same protective effect on receiving needed mental health care.

The reason for not receiving care cited next most often was being able to handle problems without help. Interestingly, this did not vary by gender, save for black males, who were least likely to cite this reason. Not relying on a mental health expert for assistance with problems may be a sign of self-sufficiency. For racial and ethnic minority groups, the stigma of utilizing mental health services can be strong (13,22). Providing clear messages about mental disorders as "valid and treatable health conditions," as suggested by the Surgeon General, may help reduce stigma (1). Beyond direct and targeted messaging about mental health, the use of respectful, culturally sensitive, and family-centered care can reduce barriers and

increase health care utilization (13). There is mixed research regarding patient and doctor concordance on outcomes, but a culturally diverse health care staff could serve as a bridge between patients and clinicians (13).

Two reasons, fear of being committed and the belief that treatment would not help, were mentioned with similar frequency and appeared to be related to distrust among racial and ethnic minority subgroups. Trust in the health care system and in physicians in particular continues to decline among racial-ethnic minority groups, particularly among blacks and Hispanics (22). Social and environmental forces, such as crime, influence trust levels among community members and thus also affect patient and doctor trust. Providing community-based, high-quality, culturally sensitive public health messages and mental health care aimed at particular subgroups, such as black males, could reduce this socially based stigmatization.

The relative risk of perceived treatment need varied by race-ethnicity

but not by gender. Among the female subgroups, only white females were at elevated risk of perceived treatment need, even after the analyses controlled for income and health insurance coverage. Black and Hispanic females were also at elevated risk of perceived treatment need, but the odds ratios did not meet statistical significance. All males were at reduced risk of perceived treatment need, highlighting the gender divide, with black males being the least likely to perceive a need for treatment. Clearly, young adult males could be targeted for public health messaging that attempts to decrease stigmatization by addressing the seriousness of mental health, the importance of early detection and intervention, and the common belief that it is unmanly to receive mental health care. More research is needed on strategies to address this at-risk subpopulation.

White males with perceived treatment need stand out as the subgroup most at risk of substance use. Although these data are cross-sectional and we cannot determine the timing of these outcomes, the fact remains that white males were at elevated risk of problematic and serious substance use. With 3.2 times the risk of marijuana abuse or dependence and 2.6 times the risk of binge drinking, white males used substances at more severe levels than all other subgroups. Hispanic males with perceived treatment need were also at elevated risk of cigarette use and marijuana abuse or dependence, and white females with perceived treatment need were the lone female subgroup that was at elevated risk of binge drinking. A comparison of persons who received mental health treatment and persons with perceived need found no association between substance use risk and treatment receipt, except for increased risk of binge drinking among white males. In fact, for some subgroups, receiving mental health treatment appeared to serve as a protective measure against use and abuse of various substances. Among persons who received treatment, black females were at reduced risk of cigarette use and binge drinking, and white females were at reduced risk of marijuana abuse and dependence.

Our findings that young adults with perceived treatment need are at high risk of substance abuse and dependence warrant further investigation. A contribution of this study is the finding that mental health services were underutilized by young adults. If the young adults who perceived a need for treatment actually received care, the proportion of treated young adults would almost double, from 11.6% to 19.2%. Leveraging this study's results regarding subgroup variances may help this effort. For example, 18.5% of young adults who needed mental health treatment and did not receive care reported that they did not know where to go for care. This issue seems to be solvable by outreach to particular at-risk subgroups, such as Hispanic females, who were most likely to cite this reason for not receiving care. Campaigns within dense, Hispanic neighborhoods describing the locations, hours, and transportation options associated with mental health service providers could specifically target this subgroup. However, not knowing where to go could reflect stigma or cultural attitudes about mental health care, and further, specific research on this topic is warranted.

There are limitations of this study that should be considered when interpreting the findings. First, the data were captured at a single point in time, reducing our ability to understand the longitudinal variations by subgroup. Another limitation of these data was the lack of power to further specify racial and ethnic subgroups beyond the broad categories used in our analyses. Future analyses using smaller subgroupings would be helpful to examine racial and ethnic groups not included in this study. In addition, future work would benefit from more detailed assessment of some of the constructs measured only briefly in this study. In particular, formal assessment of the use of substances as a coping strategy and the perception of stigma associated with mental health services is warranted. An additional limitation of this study was the lack of generalizability because of the NSDUH collection methods, which may have underrepresented minority youths,

who are more likely to have been court-ordered to seek mental health treatment, a phenomenon illustrated in past research (23). African Americans, Hispanics, Asians, Pacific Islanders, and Native Americans make up one-third of the United States youth population; however, they represent over two-thirds of the youths in secure juvenile facilities (24).

Another limitation was the limited covariates included in our models. Although they controlled for income and insurance, the models did not control for presence of mental disorders, role impairment, or "worried well" patients, who perceive that they need care but do not actually need it. The approach of this study was to examine need for mental health treatment among all young adults, regardless of mental health status. Future analyses could further separate subgroups by mental health condition, severity of need for treatment (25), and substance use outcome.

Conclusions

In all, our findings provide support to target subgroups' cultural norms and attitudes surrounding mental health service utilization in an attempt to improve access and willingness to receive care. These results provide a unique insight into a particular segment of the young adult population. The differing correlates by race-ethnicity and gender add further support to the need to create and deploy mental health outreach and treatment interventions informed by gender and race-ethnicity.

Acknowledgments and disclosures

The authors report no competing interests.

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First-Person Accounts Invited for Column

Patients, family members, and mental health professionals are invited to submit first-person accounts of experiences with mental illness and treatment for the Personal Accounts column in *Psychiatric Services*. Maximum length is 1,600 words.

Material to be considered for publication should be sent to the column editor, Jeffrey L. Geller, M.D., M.P.H., at the Department of Psychiatry, University of Massachusetts Medical School, 55 Lake Ave. North, Worcester, MA 01655 (e-mail: jeffrey.geller@umassmed.edu). Authors may publish under a pseudonym if they wish.