Emerging Issues in Gender and Ethnic Differences in Substance Abuse and Treatment

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The emerging understanding of gender differences among ethnic minorities in the rates, etiology, course, and treatment of substance abuse and common comorbid mental health disorders has significant scientific and practical implications. Growing recognition of these differences and their implications for treatment and policy decisions has highlighted research gaps and the need for more thoughtful application of the knowledge gained from existing research findings. In this brief review, we outline some of the unique aspects of substance abuse and comorbid mental health problems for women, as well as for women of various ethnic/cultural groups, including specific barriers to obtaining and remaining in treatment. Research challenges to improving limited knowledge about the rates, course, and treatment of substance abuse disorders among ethnic minority women are highlighted.

Introduction

The Global Burden of Disease report documented that substance abuse and mental disorders are common illnesses with significant burden, comprising over 20% of the total disease burden in developed nations [1]. Within the United States, growing awareness about health disparities in prevalence rates and treatment patterns for racial and ethnic minority groups have led to federal strategic plans to enhance research efforts that will reduce such disparities [2–4]. Gender differences in the prevalence and treatment patterns of substance abuse and mental disorders among ethnic minority populations, however, have received less attention.

Gender Differences in Substance Abuse and Comorbid Mental Disorders

Information on gender differences and, in some cases, racial/ethnic differences in the incidence and prevalence of drug use and mental disorders is available through several large nationwide surveys, including the National Household Survey on Drug Abuse (NHSDA) [5–6]; the National Comorbidity Survey (NCS) [7], which focuses on mental disorders and substance abuse; the Epidemiologic Catchment Area (ECA) Survey [8]; and the Monitoring the Future Survey [9], which assesses 8th, 10th, and 12th graders and includes follow-up in college students and young adults. The NHSDA, which is conducted yearly, samples a noninstitutionalized, civilian population, aged 12 and older, and includes almost 70,000 people. According to the 2001 NHSDA [5,6], estimates of the rate of illicit drug use in the preceding month were 8.7% of men and 5.5% of women in the United States. However, estimates of abuse or dependence on alcohol and/or illicit drugs for the previous year were approximately 10% in males and 4.9% in females. Among youth aged 12 to 17, the estimates were higher, and the gender gap narrower: 11.4% of males and 10.2% of females reported having used an illicit substance within the preceding month, and 8.0% of males versus 7.6% of females met criteria for abuse or dependence on alcohol or illicit drugs during the previous year.

The NCS study, first conducted between 1990 and 1992, included more than 8000 individuals aged 15 to 54 and residing in the contiguous United States. This study is currently being replicated and expanded to include other nations as well as additional diagnostic foci. The NCS estimates that 5.9% of women and 9.2% of men met criteria for a lifetime diagnosis of dependence on illicit substances, 8.2% women and 20.1% of men met criteria for alcohol dependence; and 22.6% of women and 25.6% of men met criteria for tobacco dependence [10•]. Estimates from these surveys translate into approximately 4.6 million women who abuse alcohol, 2.1 million women who abuse illicit drugs, and 2.8 million women who misuse prescription drugs in any one year [5,6]. Although currently the number of males exceeds the number of females who abuse or are dependent on illicit substances and alcohol [5,6], this disparity appears to be shrinking, according to NHSDA and other estimates [11,12]. Moreover, the gender gap in youth is either disappearing altogether or is reversing for specific drugs, such as tobacco and the abuse of psychotropic medications, according to the NHSDA [13].

Table 1. Comorbidity of drug dependence with other psychiatric disorders among drug-dependent women and men 15 to 54 years old, 1990–1992 National Comorbidity Survey

	Women (n = 241)		Men (n = 369)	
Disorder	%	Standard error	%	Standard error
Anxiety	70.6	3.5	43.8	3.8
Affective	55.3	4.1	32.7	3.4
Alcohol	68.1	4.3	82.2	2.7
Other*	34.4	5.1	59.2	4

*Includes conduct and antisocial personality disorders.
Adapted from Warner and Kessler, Unpublished data, Drug Addiction Research and the Health of Women, National Institute on Drug Abuse, 1998.

In contrast with substance abuse, a number of common mental disorders consistently indicate higher rates in women than in men. For example, approximately 12% of women and 6.6% of men are affected by depressive disorders in any given year [14; Narrow, Unpublished observations, 1998], and lifetime rates for major depression are 21.3% for women and 12.7% for men [15]. Similarly, among the anxiety disorders, women have twice the prevalence rate as men for post-traumatic stress disorder (PTSD), generalized anxiety disorder, and panic disorder [8,13,15–17]. Importantly, the most common observation in prevalence surveys is the high incidence of comorbidity between substance abuse and mental health disorders in the United States as well as internationally [18,19]. Not only do mental disorders often occur in clusters, but substance abuse co-occurs in more than 50% of people with a mental illness, and substance abuse is also not typically confined to one substance. The same relationship holds for substance abusers: more than 50% suffer from comorbid mental disorders. The rates of comorbidity among common psychiatric and substance use disorders by gender are depicted in Table 1.

As stated earlier, comorbidity is the rule rather than the exception for individuals with mental health and substance abuse problems, and comorbidity is also associated with a poorer prognosis for recovery. Women with substance abuse problems have even higher rates of psychiatric comorbidities than men. For example, among those diagnosed with alcohol abuse, 57% of men and 72% of women reported a co-occurrence of at least one episode of mental illness during their lifetime [20]. The rates are even higher for alcohol dependence. The most commonly diagnosed mental disorders in women with substance abuse are depression, anxiety disorders (including PTSD), borderline personality disorder, and eating disorders. For men and boys with alcoholism and substance abuse disorders, the most common psychiatric diagnoses are antisocial personality disorder, conduct disorders, and attention deficit hyperactivity disorders (ADHD, particularly if untreated). Moreover, with respect to alcoholism, cocaine abuse, and perhaps others, gender differences exist in the temporal pattern of comorbidity [21,22]. For example, in women, depression usually precedes substance abuse, whereas in men, depression is often secondary to substance abuse.

Although the national surveys have provided important information about prevalence and treatment patterns, there are clear limitations with this method of surveillance. The sensitive and stigmatized nature of the questions might skew responses for groups in which stigma might be greater (*eg*, certain age or ethnic minority groups), and persons who might be in the highest risk categories are least likely to be included in the surveys—that is, persons who are incarcerated, homeless, in hospitals or other institutions, and those without telephones. Beyond these practical limitations, approaches to determining and defining comorbidity (concurrent separate disorders, overlapping symptoms, or separate but sequential patterns) are not uniform for youth [23,24], or adults [25]. Therefore, these estimates would have to be considered conservative and underestimate the actual prevalence of comorbid conditions among those suffering the greatest burden.

Comorbid Substance Abuse in Women

Women suffer greater medical consequences of addiction than men, which might also increase risk for psychiatric comorbidity. Women who are intravenous drug users are more likely to be exposed to HIV/AIDS from unsafe sex or the sharing of nonsterile syringes with their drug-using partner than men. Overall, drug abuse is nearly twice as likely to be directly or indirectly associated with AIDS in women (57%) than in men (31%) [26]. Women can also develop AIDS following exposure to HIV at levels that are 4.5 times lower than those in men [27], possibly affecting practice implications for the timing of treatment initiation. In addition, women who abuse alcohol are at greater risk for developing cirrhosis and other medical problems than men, and tend to develop these problems more rapidly. Some of the reasons for this have been identified: Women have lower volumes of body water than men, and they metabolize alcohol differently, leading to higher blood levels of alcohol following comparable intake (adjusted for weight) [28]. There are also increased risks of alcohol and other substance abuse for women who are pregnant, including obstetric complications, spontaneous abortion, and early pregnancy termination, in addition to the well-known detrimental effects of alcohol on the fetus (Substance Abuse and Mental Health Services Administration/Center for Substance Abuse Treatment [SAMHSA/CSAT], Unpublished research report, 2002).

Gender Differences in Trauma

Women have disproportionately higher rates of trauma and victimization than men, which can lead to substance abuse and mental disorders. Studies evaluating women with substance abuse problems find rates of PTSD between 30% and 59%, compared with approximately 11% of women in the general population, and rates of trauma exposure are between 55% and 99% in women who abuse drugs compared with 36% to 51% in the general population [29•]. Determining the direction of the relationship between victimization and substance abuse was one of the aims of the National Women's Study [30]. In this study, it was more common for trauma (with or without PTSD) to precede alcohol and drug abuse. For many, a repetitive cycle of drug abuse and violence was established, with drug use continuing as an attempt to cope with repeated victimization. Notably, 84% of women seeking treatment for substance abuse had a history of violent assault or PTSD—73% experienced rape or aggravated assault, 44% PTSD, and 33% both.

Both depression and PTSD usually precede alcohol and substance abuse in women; however, depression is often secondary to alcohol/substance abuse in men [21,29•,30–32]. For this reason, depression in men often remits after abstinence is achieved. However, the relationship between depression and substance abuse in women is more complex. There is some evidence suggesting better substance abuse outcomes in women who are successfully treated for depression. However, women show an increased risk of relapse to drug or alcohol use compared with men if depressive symptoms re-emerge [22,32]. In general, women require treatment for both disorders. In longitudinal studies of boys and girls, girls with conduct disorders and other deviant behaviors tend to become depressed first, and then develop substance abuse. Boys show a more direct link between antisocial behaviors and substance abuse. Therefore, the paths of comorbidities might differ by gender, with implications for distinct treatment and prevention strategies to maximize health. Moreover, females in general, and adolescent girls in particular, appear to have a more rapid onset of dependence than males, once drug use is initiated. The reasons for this require investigation [32]. Notably, for both boys and girls, early sexual or physical abuse, or even witnessing violence, leads not only to increased substance abuse [33–35] but also to earlier onset of drug use compared with children who have not experienced such adversity [33]. Early-onset drug use—that is, during pre- and early adolescence—has been linked to an increased risk of later drug problems [36].

Ethnic Differences in Substance Abuse and Comorbid Mental Disorders

Few studies have examined gender differences in ethnic variation in comorbid psychiatric and substance use disorders. Rather, the literature typically reports on ethnic minority prevalence patterns by either substance abuse or mental disorders. The NHSDA documents variation in the prevalence of substance use among various racial and ethnic groups in the United States by age group and gender. Table 2 provides a list of these rates reported for the month prior to the survey [5,6]. Gender differences in these 1-month prevalence data for ethnic minority groups are generally consistent for alcohol (more males than females) and illicit drug use. Although gender differences in cigarette use are minimal among US whites, ethnic minority males have higher rates than their female counterparts. Also notable from this table are the extremely high rates of drug use among American Indian/Alaskan Native males (although significant variation exists among tribes regarding substance use problems) [37•]. This raises the question of what protects some ethnic minority women from substance use problems.

Table 2 does not break out drug use for age groups within ethnicity and gender categories [9]. However, age is an important factor that determines drug use, drug dependence, and drug choice, and is likely to play a key role in gender differences in patterns of comorbidity among ethnic minority groups. In the general population, most illicit drug use occurs in youth (teens and early 20s) and decreases during adulthood. However, alcohol and tobacco use often continue throughout the life course, and are responsible for most substance-abuse–related health problems. Drug use is highest in women during their peak years of fertility. Childbearing rates peak in the early 20s, and illicit drug use rates peak in the late teens and remain high in the 20s [10•]. Rates of smoking tend to increase from adolescence to the early 20s and continue at a steady rate thereafter. Few people become newly dependent on nicotine in adulthood. However, the risk of developing alcohol dependence continues into adulthood and even old age. Adolescents appear more vulnerable to dependence (on some drugs) than adults; and adolescent females in particular show a higher vulnerability to dependence than males, despite fewer female drug users [10•,32]. For some drugs however, the prevalence is higher in girls than in boys (*eg*, cigarettes, psychotropic medication abuse). For adults, rates of dependence are higher for males than females for alcohol and marijuana, whereas rates of dependence on nicotine and sedative/hypnotics are higher for females than males [5,6].

Acculturation

Strong ethnic identification and cultural ties have been linked with lower substance use, primarily among youth and young adults [38]. This is consistent with research during the past 2 decades that found increasing acculturation among ethnic minority groups related to increased substance abuse. Research supporting this pattern has included Latino adolescents [39–42]. One study reported that young females, in particular, might be more susceptible to this acculturation stress and more likely to have

Table 2. Prevalence (%) of previous-month drug use in the United States, by age, gender, and race/ethnicity, represented in percentages: 1998

	Age groups				Gender		All ages
Type of drug	12–17	18–25	26–34	35+	Male	Female	Both genders
Any illicit drug use							
Non-Hispanic white	10.3	17.6	7.1	3.2	7.7	4.5	6.1
Black	9.9	17.1	9.4	4.8	12	5.2	8.2
American Indian/Alaskan Native	16.3	24.9	15.5	6	16.6	5.4	9.3
Asian/Pacific Islander	5.2	7.3	2.8	0.7	3.7	1.8	2.8
Hispanic	9.9	11.1	5.4	3.5	7.7	4.5	6.1
Marijuana							
Non-Hispanic white	8.7	14.9	5.7	2.5	6.5	3.6	5
Black	8.3	15.2	7.4	3.3	9.9	3.8	6.6
American Indian/Alaskan Native	10.3	23.3	12.9	5.4	13.5	5	8
Asian/Pacific Islander	3.7	7.3	2.8	0.7	3.3	1.8	2.6
Hispanic	7.6	9	3.2	2.4	5.7	3.2	4.5
Cocaine							
Non-Hispanic white	0.9	2.2	1	0.3	0.9	0.5	0.7
Black	*	0.6	2.7	1.3	1.7	0.9	1.3
American Indian/Alaskan Native	2	2.3	0.3	1.5	3.7	0.2	1.4
Asian/Pacific Islander	*	0.3	*	*	0.1	0	0
Hispanic	1.4	2.7	1.1	0.9	1.8	0.8	1.3
Alcohol							
Non-Hispanic white	20.9	65	65.2	56.2	61.2	49.7	55.3
Black	13.1	50.3	54.8	38.3	49	32.3	39.8
American Indian/Alaskan Native	32.1	67.4	50.7	40.9	69.1	29.2	43.3
Asian/Pacific Islander	10.5	44	37.5	36.7	39.9	29.2	34.5
Hispanic	18.9	50.8	53.1	47.7	56.8	33.6	45.4
Heavy Alcohol							
Non-Hispanic white	3.4	16.7	7.1	4.2	9.3	2.5	6
Black	0.7	6.3	7.8	4.6	8.3	1.8	4.9
American Indian/Alaskan Native	5.2	12.3	16	14.3	31.9	3.7	13.7
Asian/Pacific Islander	1.7	4.2	4.8	2.1	5.8	0.1	2.9
Hispanic	2.4	10.5	7.7	5.8	10.3	2	6.5
Cigarette							
Non-Hispanic white	20.5	46.9	34.1	24.1	28.9	26.9	27.9
Black	13.7	30.7	31.5	32.2	33.8	25.9	29.4
American Indian/Alaskan Native	24.7	54.5	46.1	26.8	35.2	29	31.2
Asian/Pacific Islander	8.7	27.1	30.7	21.6	30.1	15.1	22.5
Hispanic	15.1	31.5	25.4	27	31.4	20	25.8

*Low precision, no estimate reported.
Adapted from Substance Abuse and Mental Health Services Administration [5].

substance abuse problems [43]. Adult Latino immigrants who had become more acculturated to the United States were more likely to experience mental health problems than less acculturated, foreign-born Latinos [44–47].

There is also evidence indicating that acculturation increases the risk for mental and substance use disorders among Asian/Pacific Islander groups in urban settings [48–51]. A Hawaii-based study found that Filipino adults who lived in predominantly white areas of the United States or in lower-socioeconomic settings experienced higher degrees of stress and felt a greater need to use alcohol [52]. There has been little work attempting to show the relationship between acculturation and substance abuse among US blacks, as many social scientists classify the population not as a cultural group, but as a racial group [53]. Explanations of drug abuse among US black youth tend to rely on inner-city status and economic situation rather than difficulty adjusting to traditional American values [54].

Treatment of Comorbid Disorders

According to the Surgeon General's Report on Mental Health [55], less than 33% of the population with a diagnosable mental/addictive disorder receives treatment. The Surgeon General's Report on Culture, Race and Ethnicity—A Supplement to Mental Health [56] also documented the increased burden among many US minority populations due to higher prevalence and less treatment of mental and substance use disorders. In addition to the many challenges to estimating true prevalence of comorbidity,

the lack of agreed-upon approaches to assessing "need for treatment" also leads to varying estimates of treatment needs of those most vulnerable. Because persons with comorbid disorders are more likely to access treatment [21], estimates of less severe and single conditions could be underestimated by surveys using treatment or clinical samples. Alternatively, ethnic minority groups and those who are incarcerated or homeless might be less likely to access treatment, regardless of severity or comorbidity patterns, leading to an underestimate of need [56].

Effective treatment of comorbid psychiatric and substance abuse disorders is difficult to achieve, often requiring providers to be specially trained in multiple fields with differing historical and educational traditions. Although mental health practitioners typically have received formal training in psychology or psychiatry, many substance abuse treatment facilities use former addicts and social workers as their primary care providers. In addition, the involvement of the criminal justice system in the treatment for substance abuse is generally more extensive than that for mental health disorders. Within the separate systems of treatment, undertreatment is the norm. The NHSDA estimates that only 17% of those needing treatment for substance use disorders receive treatment [5,6]. For mental health, it is estimated that less than 33% of the adult population with a diagnosable mental disorder actually receives treatment, and of those, an even smaller percentage receives appropriate or effective treatment [55]. Ethnic minorities report greater unmet need for both psychiatric and substance abuse services [57–59], and the need for new approaches to culturally appropriate care for these comorbid conditions has been repeatedly highlighted [2–4,56].

Although the evidence base is still too limited [60], treatment for comorbid conditions is assumed to be more effective when substance abuse and mental disorders are addressed in an integrated fashion rather then sequentially or in parallel, but distinct, health care systems [61–63]. The latter usually involves placing the burden of finding appropriate care entirely on the patient and has the notorious effect of bouncing patients with comorbid conditions between mental health providers (who reject the patient by claiming the drug problem is primary) and drug abuse treatment providers (who likewise claim the mental health problem is primary). Ideally, treatment should be multidimensional, readily available through a variety of providers, and aimed at dealing with the whole complex of problems that individuals face rather than simply addressing a single disorder. Fragmentation of health care services is a major barrier for people with comorbid mental health and substance abuse disorders—a barrier that is not gender-specific.

Gender Differences in Paths to Treatment

There is limited information on possible gender differences among ethnic minorities with regard to their paths to treatment. The Treatment Episode Data Set (TEDS) collects information on the approximately 1.6 million annual admissions to treatment for abuse of alcohol and drugs in facilities that report to individual state administrative data systems (therefore, it does not include all admissions to substance abuse treatment) [64]. SAMHSA has compiled information on gender and ethnic characteristics of treatment recipients in the Treatment Episode Data Set. Based on the data it covers, TEDS found that in the United States, white males make up 42% of all treatment admissions for substance abuse, followed by white females (18%), black males (16%), black females (7.5%), Mexican-origin males (3.8%), Puerto Rican-origin males (3%), American Indian/Alaskan Native males (1.5%), Mexican-origin females (1.1%), Puerto Rican-origin females (0.9%), American Indian/Alaskan Native females (0.8%), Asian/Pacific Islander males (0.6%), and Asian/Pacific Islander females (0.2%). Table 3 also lists the percentage of females among all ethnic minorities treated for substance abuse problems within the TEDS. US black women and American Indian/Alaskan Native women have rates comparable with their white counterparts, whereas US Hispanic women have somewhat lower proportions. TEDS data also indicate that there is variation in women's substance of abuse, with higher rates of alcohol only among US white and American Indian/Alaskan Native women, and higher rates of cocaine abuse among US black and US Puerto Rican-origin women (SAMHSA/CSAT, Unpublished research report, 2002).

Table 3. Percentage of females admitted to substance abuse treatment by culture/ethnicity

	Total, *n*	Females, %
All cultural groups	1,537,066	30.2
White	940,360	30.8
Black	361,642	31.8
Mexican origin	72,024	22
Puerto Rican origin	57,297	23.3
American Indian/Alaskan Native	38,405	34.9
Other*	67,338	25.5

*TEDS data for 1998 elsewhere indicate that of the 11,940 Asians or Pacific Islanders admitted for substance abuse treatment, 30.8% were women.

Adapted from SAMHSA/CSAT, Unpublished research report, 2002.

What might account for the higher percentage of males utilizing substance abuse treatment programs, beyond higher rates among males, is that, in general, women report using drugs to cope with stressful situations in their lives [32], whereas men report using drugs for recreational purposes. In part, this leads to addicted women preferentially seeking mental health treatment, whereas men with addictions usually go for substance abuse treatment. For men, mental health problems are seen as a weakness, more so than substance abuse [65].

Gender differences in paths to treatment also vary by age. Young mothers and pregnant women might be particularly reluctant to seek substance abuse treatment owing to legal liabilities, including imprisonment for child abuse (in some states) and loss of their child [66; SAMHSA/CSAT,

Unpublished research report, 2002]. Alternatively, once women feel safe enough to seek treatment, pregnancy and motherhood can be strong motivating factors for women to engage in treatment and to engage in a healthier lifestyle. Obtaining care that adequately addresses comorbid problems, however, is rare [67•]. When it is an option, residential treatment for substance abusing women has been shown to be effective if prenatal and childcare services are provided. Women tend to stay in treatment programs longer if they are women-only, and if they allow infants or children to remain with their mothers, which leads to better overall outcomes [68–70]. Availability of such services, as well as clarity regarding child custody laws, are important for successful treatment outcomes. Recent changes in welfare and adoption laws that shorten the period of time before recipients may return to steady employment or to meet criteria for reunification with their children might inadvertently lead to decreases in treatment-seeking by mothers. For those who do seek treatment, length of treatment might be shorter, increasing the risk for relapse. It is important to consider the implications of such policy changes on treatment seeking, treatment duration and adherence, and treatment outcomes [66,67•; SAMHSA/CSAT, unpublished report, 2002].

Older women are less likely to receive a substance abuse/alcoholism diagnosis than men. The stereotypes of substance abusing woman are still pervasive in the health care profession, and inhibit personnel from even asking about substance abuse. Its high comorbidity with depression, PTSD, and other disorders should alert health care professionals to screen for substance abuse in tandem with other mental health problems; however, this has not yet gained general acceptance among providers. For women older than 59, screening for and identification of substance abuse is almost nonexistent. According to a survey conducted by the National Center on Addiction and Substance Abuse at Columbia University (CASA), of 400 primary care physicians, only 1% recognized substance abuse in older women, when given a list of early symptoms [71]. The most common diagnosis given was depression followed by anxiety, and some providers prescribed medications that could actually worsen the course of addiction, such as benzodiazepines.

In adolescents, many of those in treatment have been referred through the criminal justice system [64]. This disproportionately affects males, and especially ethnic minority youth, who come to the attention of the authorities through behaviors considered antisocial and deviant. Girls who abuse substances are more likely to suffer from internalizing disorders, such as depression and anxiety, and are, therefore, less likely to be identified as needing treatment for substance abuse and mental health problems.

There are also specific issues concerning treatment that are linked to the high comorbidity of drug abuse and PTSD, such as whether triggering PTSD symptoms within a therapeutic context is likely to lead to relapse to substance abuse in previously abstinent patients. The use of some anti-anxiety medications (*eg*, benzodiazepines) might be contraindicated in patients with comorbid substance abuse disorders. Because of the high rates of comorbidity of substance abuse and PTSD (or subclinical trauma-related symptoms), it is imperative that treatment addresses both issues and that assessment for trauma is part of the screening process in drug abusers (both male and female) [30].

Comorbidity carries special challenges for relapse prevention, particularly when women might be more vulnerable. For example, research has indicated that partners of substance-abusing women are often not supportive of their recovery [12]. If the situation is compounded by the fact that women in treatment for substance abuse generally have lower educational attainment and incomes, and more family responsibilities than men, the odds of attaining recovery, and then self-sufficiency, might need to be improved by providing training to enhance employment skills, education, parenting, and social functioning.

Substance Abuse Treatment Effectiveness for Women

Although substance abuse and psychiatric treatments are assumed to be best when integrated to treat comorbid conditions [61–63], few integrated treatment options exist. Although women can do well in substance abuse treatment programs [32], they are less likely to access them for a variety of reasons [12,67•; SAMHSA/CSAT, Unpublished research report, 2002]. Most drug abuse treatment programs were developed by (typically white) men for men, and they fail to meet the practical and emotional needs of women, particularly those who might be pregnant, postpartum, or primary caretakers of their children [67•,69]. Women often have multiple roles in society and their families, with greater responsibilities and less empowerment. Women drug abusers generally have less education and less financial independence than their male counterparts [69; SAMHSA/CSAT, Unpublished research report, 2002]. Therefore, to engage and maintain women in substance abuse treatment programs, services such as childcare, family or parenting skills training, transportation, employment training, and medical care all might be required.

Most substance abuse treatment programs do not have gender-sensitive or gender-specific services. The significant role of physical and sexual abuse in women's substance abuse and mental health disorders is rarely addressed by most treatment programs. There are approaches that are recommended for women, such as relationship-based treatments, cognitive behavioral therapies, trauma-sensitive therapies, and trauma-directed therapies. However, these are often unavailable, and are largely under-researched for their efficacy and effectiveness [69; SAMHSA/CSAT, Unpublished research report, 2002].

Some pharmacologic treatments for substance abuse might not be as effective in women as men for a variety of reasons relating to the causes of the addiction, as well as to

differences in metabolism, hormonal and genetic factors, and others. This might also be the case for certain racial and ethnic minority subgroups. In many cases, medications and even behavioral treatments are not tested in women, and are almost certainly not evaluated in pregnant women, for whom the risks of substance abuse to themselves and their unborn children are substantial [SAMHSA/CSAT, Unpublished research report, 2002].

Behavioral treatment programs, which have been predominantly developed for men, might not work well with women because they often target different problem behaviors and reasons for substance abuse. For example, therapeutic communities often use confrontational methods and highly structured environments to attempt to bring some organization into the chaotic life of drug abusers, and to force them to take responsibility for their actions. These might be appropriate strategies for male drug abusers, particularly for those with a history of externalizing behavioral disorders, such as conduct disorder, and antisocial personality disorder. However, such techniques might be re-traumatizing to women (or men) who have a history of physical or sexual abuse, which, unfortunately, might include a substantial proportion of the female drug abuse treatment-seeking population. Few behavioral treatment programs for women have been rigorously evaluated or tested in diverse populations.

Research Challenges

In addition to the research challenges posed throughout this paper, several issues are worth re-emphasizing if we are to better define the scope of the nation's substance abuse/mental health problem, and determine the treatment needs of women, and especially those of ethnic minorities. Several national surveys provide information on the general magnitude of the problem and include some valuable information on ethnic and gender variation, but important limitations remain. These include the use of differing diagnostic tools to measure comorbid conditions, and a lack of standards for defining treatment needs. These limitations impede comparisons across surveillance efforts. Moreover, the underrepresentation of those most at risk (*eg*, people who are homeless, incarcerated, and/or non-English-speaking), in combination with limited sampling of ethnic minority populations in some surveys, reduces our capacity to examine within-group differences, which is essential for refining protective and risk factors. Identifying protective factors within minority groups is crucial if we are to be successful in preventing the costly effects of the onset and likely chronicity of substance abuse and mental disorders, and the consequent burdens to individuals and society.

Conclusions

More research is needed on the unique pathways to substance abuse disorders among ethnic minority women, as well as pathways to treatment, to enhance surveillance and treatment approaches. Understanding women's perceptions related to safety, legal concerns, family and financial pressures, and the stigma of acknowledging disorders and seeking treatment is essential for reducing the significant burden of substance use and comorbid mental disorders. Consideration of developmental or age-related patterns of substance use, comorbidity (especially with trauma-related disorders), and treatment setting and provider biases is also necessary for improving treatment outcomes, as well as planning preventive interventions. Treatment approaches that are effective in meeting the needs of both genders, and of all groups of our culturally diverse population, are desperately needed. And, because the gap in treatment needs and services is not equal across gender or ethnicity, more effort is needed to reduce this disparity. Greater awareness of these issues by the care-providing, legal, and research communities are needed to effectively foster the changes necessary to reduce disparities.

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Papers of particular interest, published recently, have been highlighted as:

- • Of importance
- •• Of major importance

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