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Substance Abuse Prevalence and Treatment Among Latinos and Latinas

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SUMMARY

Substance abuse prevalence rates for Latinos/as generally mirror those of the general U.S. population; however, a number of indicators of assimilation to U.S. culture as well as sociodemographic variables predict substance use and abuse among this group. Latinos/as have poorer outcomes in substance abuse treatment programs. Yet there is little empirical evidence that explains the problems these individuals experience in treatment, and there are few studies on the use and effectiveness of mutual help groups among this population. New developments in the conceptualization and measurement of acculturation will lead to a greater understanding of the role of culture in the prevalence and treatment of substance-related problems.

Keywords

Hispanics; Latinos; alcohol abuse; drug abuse; recovery

INTRODUCTION

The Hispanic/Latin American population of the U.S. has been growing steadily over the last four decades (Casas, Vasquez, & Ruiz de Esparza, 2002) and recent census statistics indicate that 42.7 million Americans identify themselves as Hispanic (U.S. Bureau of the Census, 2006). This group represents a diverse mixture of individuals from various

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ethnicities, languages, and cultures (Casas et al.; Comas-Diaz, 2001) who trace their origins to several nations. While current literature uses a number of descriptors to identify this diverse group (Comas-Diaz), this paper will use the terms Latino and Latina.

The size of the Latina/o population in the U.S. and projections for its growth require that substance abuse researchers and treatment providers pay greater attention to the prevalence and treatment of drug and alcohol abuse among this group (Delgado, 2005; de la Rosa, Holleran, & Straussner, 2005). Estimates of the rates of substance use and abuse among Latinos/as in the United States have emerged over the past several decades, and these will be reviewed in the section below. This will be followed by a review of empirical information on treatment access and outcome, including mutual help. Although there is a growing literature on substance abuse prevention, and treatment among Latino and Latina youth (de la Rosa et al.), this review will focus on adults.

PREVALENCE

National Household Surveys on Substance Abuse conducted in 1991, 1992, and 1993, indicated that rates of alcohol and other drug use and abuse among Latinas/os did not differ from those of the overall U.S. population (Substance Abuse and Mental Health Services Administration [SAMHSA], 1998a). One exception was that Latinos/as reported slightly higher 30 day use of crack cocaine in the 1993 survey. However, these higher use rates are likely due to socioeconomic differences (Lillie-Blanton, Anthony, & Schuster, 1993). After a revision of the National Household Survey protocol in 1994, yearly prevalence statistics with national samples of Latinas/os found substance use and abuse rates that mirrored those of the general U.S. population (National Institute on Drug Abuse [NIDA], 1998). These later surveys also included larger samples of Latinos/as, allowing for analyses of national and gender substance use patterns (SAMHSA, 1998b, 1999).

More recent national surveys conducted by SAMHSA continue to indicate that Latinos/as report slightly lower rates of lifetime illicit drug use than European and African Americans. However, rates of past month and past year drug use equal those of other ethnic groups. Additionally, rates of alcohol dependence and binge drinking among this group are similar to those of European Americans and slightly higher than those of African Americans (SAMHSA, 2000, 2001, 2002a, 2003, 2004).

A relatively neglected area involves co-occurring disorders with substance abuse. Early studies involved small samples (Golding, Burnam, & Wells, 1990, 1992; Kail, Zayas, & Malgady, 2000; Neff, 1993; Wilcox, Briones, & Suess, 1991). However, a number of recent well-designed investigations provide clinically relevant data (Becker, Grilo, Anez, Paris, & McGlashan, 2005; Grilo, Anez, & McGlashan, 2002; Montoya, Covarrubias, Patek, & Graves, 2003; Rios-Bedoya & Gall, 2003; Robles, Matos, Deren, Colon, Sahai, Marrero et al., 2006; Vega, Sribney, & Achara-Abraham, 2003; Vega, Sribney, Aguilar-Gaxiola, & Kolody, 2004). These studies generally document that co-occurring mood and anxiety disorders are common among substance-abusing Latinos and Latinas in the U.S., as they are among the rest of the population. Furthermore, these studies indicate that women and U.S. born Latinos and Latinas have higher rates of co-morbid mood and anxiety disorders than men and foreign-born individuals. Additionally, several studies indicate a relationship between exposure to traumatic events and substance abuse among Latinos and Latinas (Alegria, Vera, Shrout, Canino, Lai, Albizu, Marin et al., 2004; Amaro, Larson, Gampel, Richardson, Savege, & Wagler, 2005; Finch, Catalano, Novaco & Vega, 2003; Lown & Vega, 2001; Vera, Alegria, Pattatucci-Aragon, & Pena, 2005).

A closer examination of prevalence studies reveals a number of variables, which predictrates of substance use and abuse among Latinos/as. Several of these differences reflect

assimilation to U.S. culture, while others pertain to sociodemographic variables, including gender. Unfortunately, large-scale surveys of substance use and abuse have failed to measure indicators of assimilation and most have not controlled for demographic variables in their data analyses (SAMHSA, 1998a).

Gender Differences and Cultural Values

National surveys reveal gender differences in prevalence rates of substance use and abuse among all Americans (NIDA, 1998). These differences are especially pronounced between Latinos and Latinas (Black & Markides, 1993; Caetano, 1994; Canino, Burman, & Caetano, 1992; Cervantes, Gilbert, Salgado de Snyder, & Padilla, 1990–1991; Cuadrado & Lieberman, 1998; Guendelman & Abrams, 1994; Hines & Caetano, 1998; Hughes, Day, Marcantonio, & Tropy, 1997; Lee & Markides, 1997; Marin & Posner, 1995; Markides, Ray, Stroup-Benham, & Trevino, 1990; Nielsen, 2000; Parker, Weaver, & Calhoun, 1995; SAMHSA, 1998a; Vega, Alderete, Kolody, & Aguilar-Gaxiola, 1998; Welte & Barnes, 1995). In general, Latinas are more likely than Latinos to abstain from using alcohol and illicit drugs (Amaro, Whitaker, Coffman, & Hereen, 1990; Black & Markides; Caetano; Canino et al.; Hines & Caetano; Lee & Markides; Markides et al.; Nielsen; SAMHSA; Vega et al.), and Latinas are less likely to drink heavily and become dependent on alcohol (Hines & Caetano; Lee & Markides; Markides et al.).

A number of investigators propose that cultural norms that discourage substance use by women may protect Latinas from substance abuse and dependence by promoting abstinence (Canino et al., 1992; Canino, 1994; Moore, 1994; Welte & Barnes, 1995). Indeed, there is empirical support for a relationship between holding U.S. cultural values and substance use among Latinas. For example, results of a national survey of over 1,000 Latinas indicated that those who associated with non-Latinos/as, used English-speaking media, and held U.S. cultural values were less likely to abstain from using alcohol (Caetano, 1994). More recent research has replicated the results cited above (Caetano, Ramisetty-Mikler, & McGrath, 2004). Another study conducted in New York state demonstrated that Latinas who were either U.S.-born, or lived in the U.S. before the age of 18, and held U.S. cultural values were more likely to drink and more likely to drink heavily than Latinas who were foreign-born, spoke Spanish, visited their country of origin regularly, and maintained Latin American values (Welte & Barnes, 1995). In this study, cultural values among Latinos did not predict alcohol or illicit drug use.

One of the hypotheses about cultural mediators of substance use and abuse among Latinos is that traditional gender role attitudes (i.e., “machismo”) might encourage Latino substance use. However, two studies have found no relationship between substance use among Latinos and endorsement of traditional gender roles (Cuadrado & Lieberman, 1998; Neff, Prihoda, & Hoppe, 1991). Thus, while cultural values may promote abstinence among Latinas, research has failed to document a relationship between substance use and gender role attitudes among Latinos. Existing literature also supports a relationship between other indicators of cultural assimilation and substance use among Latinos and Latinas.

Language

The strongest support for a relationship between assimilation to U.S. culture and substance use comes from studies that consistently find a positive relationship between English language preference and proficiency and higher rates of alcohol and other drug use, abuse, and dependence among Latinas/os. National epidemiological studies consistently find that Latinos/as who choose to be interviewed in English are more likely to use and abuse substances than those who request to be interviewed in Spanish (Amaro et al., 1990; Black & Markides, 1993; Caetano, 1994; Finch, 2001; NIDA, 1987; SAMHSA, 1998a; Wagner-

Echeagaray, Chilcoat, & Anthony, 1994). The relationship between language use/preference and substance use/abuse holds even when data analyses control for socioeconomic status (Amaro et al.; Finch; Wagner-Echeagaray et al.). It should be noted, however, that studies such as SAMHSA's (1998a) analysis of data from three consecutive national surveys (1991, 1992, and 1993) revealed a relationship between English use and illicit drug use as well as self-reported need for drug treatment, but not alcohol use or need for alcohol treatment. Also, analyses of data from SAMHSA's National Household Survey indicated that language use predicted substance use only among Mexican Americans, but not among other Latinas/os (Wagner-Echeagaray et al.).

Smaller regional studies conducted in various parts of the U.S. support national findings on the positive relationship between English proficiency and substance use and abuse (Cuadrado & Lieberman, 1998; Farabee, Wallisch, & Maxwell, 1995; Marin & Posner, 1995; Neff & Hoppe, 1992; Perez-Stable, Marin & Marin, 1994; Vega et al., 1998; Welte & Barnes, 1995) for both Latinos and Latinas.

In the studies reviewed above, language use has been employed as a proxy measure of assimilation to U.S. culture; however, the mediators of the relationship between substance use and abuse and English proficiency are not well understood. Indeed, several researchers propose that English use may represent adaptation to U.S. values and norms such that English-speaking Latinas/os may use substances in ways that are similar to the general American population (Amaro et al., 1990; Black & Markides, 1993; Caetano, 1994; Welte & Barnes, 1995). It is also possible that Spanish-speaking Latinos/as may be more reluctant to report substance use and abuse in response to community surveys due to fears stemming to their lack of familiarity with survey procedures such as confidentiality (Wagner-Echeagaray et al., 1994). Another explanation for the higher rates of substance use among English-speaking Latinas/os involves the loss of connection to family and culture, or to stresses related to minority status among individuals who are committed to becoming part of the mainstream U.S. culture (Castro, Proescholdbell, Abeita, & Rodriguez, 1999; Escobar, Nevi, & Gara, 2000; Ortega, Rosenheck, Alegria, & Desai, 2000). Clearly, there is a need for more research to better understand the factors that mediate the relationship between language preference or proficiency and substance use and abuse.

Place of Birth/Generation in the U.S

Several investigators have also explored relationships between substance use and abuse and generation in the U.S. The H-HANES demonstrated that U.S. born Latinos and Latinas were more likely to use marijuana and cocaine than men and women who were born in Mexico or Puerto Rico (Amaro et al., 1990). More recently, data from national surveys indicate that Latino/a and other immigrants are less likely to use both alcohol and illicit drugs than individuals born in the U.S. (Abraido-Lanza, Chao, & Flores, 2005; Grant, Stinson, Hasin, Dawson, Chou, & Anderson, 2004; Johnson, VanGeest, & Cho, 2002). Additionally, among Latinos, being born in or residing in the U.S. for 15 years or more has been found to be associated with increased alcohol use (Abraido-Lanza et al.). The National Comorbidity Survey, which included a representative sample of English-speaking Latinos/as, indicated that Mexican Americans who have at least one parent who was born in the United States were more likely to have a substance-related disorder than Mexican Americans whose parents were born in Mexico (Ortega et al., 2000). However, in that study, generation in the 50 states did not predict substance-related disorders among Puerto Ricans.

Regional studies that have examined the relationship between place of birth and substance use or abuse among Latino and Latina samples provide mixed results. Three studies conducted in the West and Southwest found that Latinos and Latinas who were born in the United States reported greater substance use and abuse than either individuals born in

Mexico or European Americans (Farabee et al., 1995; Golding, Brurnam, Benjamin, & Wells 1992; Vega et al., 1998). Similarly, Vega, Kolody, Hwang, Noble, and Porter (1997) found that Latinas born outside the U.S. were more likely to abstain from substance use than U.S.-born Latinas. Additionally, Gilbert and Collins (1997) reported that second and third generation Latinas increase their alcohol use such that by the third generation Latinas' drinking patterns resemble those of other women in the U.S. In another study, conducted in New York State, place of birth alone did not predict alcohol use for either men or women in general, but U.S.-born Latinos and Latinas were more likely to use illicit drugs (Welte & Barnes, 1995). Another study conducted in California found that Latinas born outside the U.S. were less likely to report alcohol use than U.S. born Latinas; however, place of birth did not predict self-reported alcohol use among Latinos (Cervantes et al., 1990–1991).

Overall, the studies reviewed above provide some support for a relationship between place of birth, and perhaps generation in the U.S., and substance use and abuse. Contradictory results may be explained by gender, substance(s) of choice, region of the country, age at the time of immigration, language preference, and perhaps cultural values.

Differences Between Latino/a Groups

In addition to addressing language and place of birth, the H-HANES data (NIDA, 1987) highlighted differences in substance use and abuse among the various Latino/a groups. More specifically, the H-HANES indicated that Puerto Rican and Mexican American men were more likely to report lifetime and past year marijuana use than Cuban American men. Among women, Puerto Ricans had the highest rate of both lifetime and past year marijuana use. Lifetime and past year reports of cocaine use indicated that Puerto Rican men and women had higher rates of cocaine use than Mexican and Cuban American men and women. Use of marijuana and cocaine was higher among Puerto Ricans than among European Americans. Other findings from the H-HANES indicate that Puerto Ricans and Mexican Americans are more likely than Cuban Americans to report heavy drinking (Lee & Markides, 1997). Looking specifically at drinking among women, Black and Markides (1993) found that Puerto Rican and Mexican American women surveyed for the H-HANES were less likely to abstain from drinking than were Cuban American women.

Combined prevalence data from the 1991, 1992 and 1993 National Household Surveys revealed differences between “Caribbeans, Central Americans, Cubans, Mexicans, Puerto Rican, and other Hispanics” (SAMHSA, 1998a, p. 7). More specifically, Caribbeans, Cubans, and Central Americans reported rates of illicit drug use that were lower than those of the European American population, while Mexican Americans and Puerto Ricans reported higher rates of illicit drug use and need for drug treatment. Similarly, Mexican Americans had a higher prevalence of heavy alcohol use and alcohol dependence than other Latinos/as and European Americans. SAMHSA's findings also indicated that differences between men and women in heavy drinking and alcohol dependence were particularly large among Mexican Americans and Central Americans. An analysis of the 1993 National Survey on Drug Abuse indicates that Mexican American men are more likely to report heavy drinking than other Latinos (Nielsen, 2000).

Combined data from SAMHSA's 1999 and 2000 National Household Surveys also revealed differences among the various Latino groups. Heavy alcohol use and binge drinking rates for Mexican Americans and Puerto Ricans living in the 50 states were higher than the rates of Central Americans, South Americans, and Cubans living in the U.S. Past year and past month use of illicit drugs was higher among Puerto Ricans in the U.S. than it was among other Latina/o groups as well as European and African Americans (SAMHSA, 2000).

In summary, increasing evidence suggests differences in the rates of substance use and abuse among the various Latino/a groups. More specifically, research indicates that Mexican Americans and Puerto Ricans may be at higher risk of substance abuse and dependence than other Latinas/os, and possibly European and African Americans. These “within group” differences may reflect differences in attitudes about substance use, regional use patterns within the United States, or differences in assimilation/adaptation to U.S. culture, among other factors. Puerto Ricans and Mexican Americans’ increased risk for substance use and abuse also may be related to their youthfulness and greater poverty, in comparison to other Latinas/os (U.S. Bureau of the Census, 2000). In fact, research reveals relationships between a number of sociodemographic variables and substance use and abuse among Latinas/os. Unfortunately, with the exception of the analyses conducted on H-HANES data, the national studies reviewed in this section have not controlled for demographic differences among the various Latino/a groups.

Other Sociodemographic Variables

Younger age (18–25) and not being married predict greater substance use among Latinas/os (Black & Markides, 1993; Markides et al., 1990; Nielsen, 2001; Parker et al., 1995; SAMHSA, 1998a; Welte & Barnes, 1995). Married Latinas/os also report fewer alcohol-related problems; however, marital status does not predict the severity of these problems among Mexican-Americans (Nielsen). Additionally, prevalence of drug use, need for drug treatment, heavy alcohol use, and alcohol dependence peak with increasing education between grades 9 and 11 and decrease with increasing education after the 11th grade (SAMHSA).

While having a higher income has been found to predict a greater use of alcohol among Latinas/os (Black & Markides, 1993; Markides et al., 1990; Nielsen, 2000; Parker et al., 1995), being unemployed has been found to predict heavy alcohol use and alcohol dependence (Parker et al.; Nielsen; Parker et al.; SAMHSA; Welte & Barnes, 1995) as well as illicit drug use (Alegria et al., 2004). Increasing poverty has been associated with heavy drinking among Latinas/os (Markides et al.). Similarly, results of a national study indicated that employed Latinas/os and those with higher incomes were less likely to report alcohol-related problems than individuals who were unemployed or had lower incomes (Caetano & Clark, 1998). Finally, a recent study with a large sample of Mexican-origin immigrants in California revealed that job-related experiences of exclusion and discrimination predicted past-year alcohol abuse and dependence. In that study, high levels of social support were not protective among individuals who experienced high to moderate levels of employment frustration (Finch et al., 2003).

Similar relationships between substance use and abuse and variables such as age, marital status, and employment status are found among other ethnic groups as well (SAMHSA, 1998a). Furthermore, census data indicates that there are differences between Latinas/os and other segments of the American population, as well as among the various Latino/a groups in the United States in terms of age, socioeconomic status, and level of education (U.S. Bureau of the Census, 2000). Increasingly it is becoming clear that studies addressing the prevalence of substance use and abuse among Latinas/os need to take into account a number of demographic variables mentioned above. In addition, region of the country and urban or rural residence need to be considered (NIDA, 1998; SAMHSA, 1998a).

Summary of Prevalence Studies

SAMHSA’s yearly National Household Surveys now include representative samples of Latinas/os in various parts of the country. Current Latino/a sample sizes allow for data analysis by gender and national group. These surveys conducted since the early 1990’s have

helped to establish the prevalence of illicit drug use and alcohol use and abuse among Latinos/as. However, prevalence research needs to pay attention to the heterogeneity of the Hispanic/Latino/a population in the U.S. (NIDA, 2003). More specifically, a number of variables need to be taken into account in prevalence research with Latinos/as, including indices of assimilation (language, place of birth and generation in the U.S., cultural values) and sociodemographic indicators (age, marital status, employment status, level of education, income, region of the country, rural/urban residence). The relationships among the variables just mentioned, along with gender and national origin, as predictors of substance use and abuse merit further exploration. A greater understanding of the predictors of substance abuse among this growing segment of the U.S. population will contribute to better treatment and prevention interventions. The association between several indicators of assimilation to U.S. culture (i.e., language, place of birth, generation in the U.S.) deserves particular attention from researchers as the second and third generations of Latinos and Latinas in the U.S. continue to grow.

TREATMENT

Residential and Outpatient Treatment

In contrast to the growing body of knowledge regarding the prevalence of substance use and abuse among Latinas/os, there are fewer studies that identify effective treatment models (Cervantes & Felix-Ortiz, 2004; Vega & Sribney, 2005). Additionally, much of the existing evidence indicates disparities in access to and outcomes in substance abuse interventions for Latinos and Latinas. For example, recent national surveys indicate that Latinas/os have less access than other Americans to substance abuse treatment (SAMHSA, 2001; 2002a) or that they have to wait longer to access such services, and once they enter treatment they are less satisfied with the services they receive (Wells, Klap, Koike, & Sherbourne, 2001). A national survey of Latino/a veterans receiving treatment in VA hospitals indicated that Latinas/os who needed treatment for alcohol abuse were less likely than other veterans to receive such services (Booth, Blow, Bunn, & Fortney, 1992). Recent National Household Surveys on Drug Abuse and Health, however, indicate that Latinos/as are just as likely to report finding substance abuse treatment programs as Americans from other ethnic groups (SAMHSA, 2003; 2004).

Regional studies also provide evidence that Latinos and Latinas underutilize substance abuse treatment. For instance, research conducted with substance abusing individuals involved in the criminal justice system in California indicated that Latinos/as were less likely to express a need for treatment (Longshore, Hsieh, & Anglin, 1993) and less likely to participate in treatment than individuals from other ethnic groups (Anglin, Hser, & Grella, 1997; Longshore, Hsieh, Anglin, & Annon, 1992). Statewide surveys in Massachusetts indicated that Latino/a intravenous drugs users were 1/3 less likely than their European American counterparts to enter residential treatment (Lundgren, Amodeo, Ferguson, & Davis, 2001). Furthermore, a recent study found that Puerto Rican women in Puerto Rico and New York City have less access to substance abuse, medical, and mental health services than men (Robles et al., 2006).

Several regional studies highlight various factors that may facilitate or hinder substance abuse treatment utilization among Latinos/as. For example, the statewide survey of intravenous drug users in Massachusetts indicated that having health insurance and receiving mental health services or being involved with the criminal justice system were associated with greater treatment utilization among women (Lundgren, Amaro, & Ben-Ami, 2005). Other studies conducted in California found that immigrants may be less likely to utilize treatment programs than U.S.-born Latinos/as (Fisher, Reynolds, Moreno-Branson, Jaffe, Wood, Klahn, & Muniz, 2004; Vega & Sribney, 2005). However, Vega and Sribney also

reported that U.S.-born Latinos/as were more likely than their immigrant peers to express negative views about treatment services. Finally, qualitative studies with small samples of Latinas/os on the East coast suggest that shame and concerns about disrupting family relationships may prevent at least some Latinos/as from seeking residential treatment for drug and alcohol abuse (Amaro, Nieves, Johannes, & Cabeza, 1999; Kline, 1996).

Additionally, a number of studies have found Latina/Latino ethnicity to be a significant predictor of premature termination of outpatient drug abuse treatment (Agosti, Nunes, & Opecek-Welikson, 1996; Hser, Huang, Teruya, & Anglin, 2005; Kleinman, Kang, Lipton, Woody, Kemp, & Millman, 1992; Simpson, Joe, Rowan-Szal, & Greener, 1995; White, Winn, & Young, 1998). These studies have been conducted in various regions of the country, with individuals using a variety of substances, who sought treatment voluntarily, or were mandated to treatment. Another study conducted on the East coast found that that Latinos/as in treatment for substance abuse were more likely than European or African Americans to drop out of therapeutic communities (DeLeon, Melnick, & Jainchill, 1993). Among individuals in Los Angeles county drug treatment centers, Latina/o ethnicity was found to be a significant predictor of relapse upon termination of services (Brecht, vonMayrhauser, & Anglin, 2000). Finally, a 24-year follow-up of over 500 individuals in a court-mandated substance abuse treatment program, and a survey of treatment centers throughout the U.S., revealed that Latinos and Latinas had poorer outcomes after substance abuse treatment than European Americans (McCaughrin & Howard, 1995; Pendergast, Hser, & Gil-Rivas, 1998).

In contrast to the findings that point to an association between Latina/o ethnicity and premature treatment termination and poorer outcomes, a handful of studies have found that Latinos/as have outcomes that are similar to those of individuals from other ethnic groups. Bell, Williams, Nelson, and Spence (1994) did not find an association between ethnicity and retention in either a 28-day residential or a day treatment program of the same duration. Similarly, evaluations of methadone maintenance programs in California and New York City revealed no relationship between Latino/Latina ethnicity and retention (Hser, Anglin, & Liu, 1990–1991; Mulvaney et al., 1999). Finally, Dansereau, Joe, Dees, and Simpson (1996) found that node-link mapping was more effective for Latinos/as and African Americans than for European Americans in methadone maintenance programs, suggesting that mapping can overcome cultural and educational differences. Two studies, conducted in methadone maintenance programs, also called into question the usefulness of clinician-client ethnic matching for Latinas/os in substance abuse treatment. Maddux and Desmond (1996) found no effect of ethnic matching on treatment outcome, while Fiorentine and Hillhouse (1999) found that clinician/client ethnic matching positively influenced abstinence among women, but not among men.

In response to the contradictory findings reviewed above, several researchers have called for more attention to the impact of cultural variables on substance abuse treatment access, retention, and outcome (Alvarez & Ruiz, 2001; Amaro et al., 1999; Blane, 1993; Caetano, 1993; Castro & Tafoya-Barraza, 1997; Castro et al., 1999; Cervantes & Pena, 1998; de la Rosa, Khalsa, & Rouse, 1990; Gil & Vega, 2001; Institute of Medicine, 1990; Markarian & Franklin, 1998; Medina, 2001; Mora, 1998; Rebach, 1992; Rebhun, 1998; Rothe & Ruiz, 2001; Terrell, 1993). It is likely that differences in terms of cultural values, language, place of birth and generation in the U.S. influence individuals' response to treatment procedures and providers. Since Latinos/as differ in terms of various indices of acculturation, there is a need to document the types of modifications in treatment protocols that may be necessary, and to assess whether such modifications result in improvements in retention and outcomes (Gil & Vega).

Specific cultural values that may play a role in the process and outcome of substance abuse treatment include the value placed on dignity and respect (Ruiz & Langrod, 1992), the tendency to rely on the extended family for support (Castro & Tafoya-Barraza, 1997; Castro et al., 1999; Gil & Vega, 2001; Ruiz & Langrod, 1992; Terrell, 1993), “personalismo” (an emphasis on interpersonal relationships) (Gloria & Peregoy, 1996; Gil & Vega, 2001), “simpatia” (downplaying conflict in relationships) (Gloria & Peregoy, 1996; Gil & Vega, 2001), the value placed on spirituality and religion (Ruiz & Langrod, 1997), and gender roles which emphasize the public appearance of patriarchy (Gloria & Peregoy, 1996; Goldberg, 1997; Mora, 1998; Perez-Arce, 1994).

A number of qualitative studies with small numbers of Latinos and Latinas point to the importance of considering culture in the delivery of substance abuse services (Hohman, 1999; Porter, 1999; Trepper, Nelson, McCollum & McAvoy, 1997). Latinas/os in substance abuse treatment consistently endorsed the positive impact of having Latino/a counselors and peers in their treatment programs, citing the building of trust as an outcome of ethnic similarity. In addition, Trepper and colleagues’ interviews with six Latinas in substance abuse treatment echoed many of the culturally specific themes discussed above. One theme included the importance of family and religion/spirituality in recovery. Additional themes involved the need to attend to other cultural values in treatment, such as respect for elders, collectivism, and maintaining the illusion of patriarchy in male-female relationships.

Similarly, a series of reports indicate that culturally-modified therapeutic communities, recovery homes and outpatient programs may lead to greater utilization and better outcome among Latinos and Latinas seeking substance abuse treatment (Cervantes, Kappos, Duenas, & Arellano, 2003; Hohman & Gait, 2001; Waters, Fazio, Hernandez, & Segarra, 2002). However, these findings are based on quasi-experimental studies with small samples and more research is needed to clarify the relationship between cultural affiliation and response to treatment interventions among Latinos and Latinas (Cervantes et al.; Hohman & Gait; Vega & Sribney, 2005).

It is possible that cultural mismatches between client and clinician may account for the higher rates of premature termination and the poorer outcomes of many Latinas/os and Latinas who seek substance abuse services. It is also possible that Latinos/as may have poorer outcomes, lower satisfaction with treatment, and shorter stays in substance abuse programs because of variables unrelated to cultural beliefs, values, and practices. There are only a few studies that document the problems presented by Latinas/os in substance abuse treatment. Arciniega, Arroyo, Miller, and Tonigan (1996) found few differences in alcohol use patterns between Latinos and European American men in alcohol treatment. Latinas, however, reported lower alcohol consumption, fewer symptoms, and less adverse alcohol-related consequences than Latinos and European American men and women. However, a recent analysis of a large national database of individuals in various types of substance abuse treatment programs indicated that Latinas reported more severe medical, psychological and employment problems than Latinos. Additionally, there were no significant differences in reports of alcohol, cannabis, and heroin use between men and women in the 30 days prior to seeking treatment and women reported more days of cocaine use than men during this time period. Furthermore, in terms of lifetime substance use, women reported using alcohol for fewer years than men, but there were no gender differences in years of cannabis, cocaine, and heroin use (Alvarez, Olson, Jason, Davis, & Ferrari, 2004). These findings indicate that Latinas who abuse substances enter treatment with problems that are at least as serious as those of Latinos. These substance-abusing women also need interventions that target medical, employment and co-occurring mental health problems.

Other national surveys indicate that many Latinos and Latinas may bring more serious problems as they enter substance abuse treatment programs, due to their drugs of choice, medical problems and involvement with the criminal justice system. SAMSHA's Drug and Alcohol Services Information System (2002b) reported that nationally, Latinos/as were more likely to be admitted to substance abuse treatment for opiate abuse than non-Latinas/os. Another national survey of substance abuse treatment programs indicated that programs with caseloads that were at least 20% Latino/a served clients who were poorer, more likely to abuse illicit drugs, more likely to have engaged in crime and to be court-referred to treatment, and more likely to be HIV positive or have AIDS (McCaughrin & Howard, 1995). Thus it is likely that the problems that Latinas/os bring to treatment may have an impact on their outcomes (Castro & Tafoya-Barraza, 1997; Hernandez, 2000; Mora, 1998; Castro et al., 1999; Gil & Vega, 2001). There is a need for more studies that document the types of problems that Latinos/as bring to substance abuse treatment, such as most common drugs of choice, extent of substance use, and substance-related problems, including employment and level of education/job skills. These variables have been found to predict treatment retention and outcome among Latinas/os and others (Agosti et al., 1996; Brecht et al., 2000; Kleinman et al., 1992; Simpson et al., 1995; White et al., 1998). In addition, the effect of perceived discrimination and acculturative stress on treatment outcomes needs to be documented (Hernandez, 2000; Mora, 1998; Castro et al., 1999; Gil & Vega, 2001).

Mutual Help

Latino/Latina participation in 12-step groups such as Alcoholics Anonymous (AA), Narcotics Anonymous (NA), Cocaine Anonymous (CA), and Al-Anon has received less attention than other substance abuse interventions. Another neglected area of research has been the relationship between social support and recovery among Latinas/os (Barrera & Reese, 1993; Delgado & Humm-Delgado, 1993, 1995). Exploration of the relationship between social support and substance abuse recovery among Latinos/as is particularly important given the centrality of social support in substance abuse recovery (Humphreys & Moos, 1996; Humphreys, Moos, & Finney, 1996; Loganbaugh, Wirtz, Beattie, Noel, Stout, & Malloy, 1993).

Research to date indicates that Latinas/os use Alcoholics Anonymous and express agreement with its major principles (Caetano, 1993; Kaskutas, Weisner, & Caetano, 1997; Tonigan, Connors, & Miller, 1998). AA and Al-Anon have spread to Latin America (Caetano), and there are Spanish speaking AA and Al-Anon groups throughout the U.S. (Caetano; Hoffman, 1994). A national survey indicated that Latinos/as utilized AA to address problem drinking (Kaskutas et al.). However, according to AA membership surveys, Latinas/os underutilize this mutual help group (Tonigan et al.). There are no studies of Latino/a participation in Al-Anon, Narcotics Anonymous, or Cocaine Anonymous. Thus, investigations of Latino/a participation in 12 step programs include only individuals seeking help for alcohol abuse. The lack of attention to Al-Anon is particularly surprising given the central role that the family typically plays in Latin American cultures (Marin, 1993).

The few studies that have looked at AA participation have been conducted primarily in Northern New Mexico. Results of these investigations have been mixed. For example, a study in an outpatient treatment center in New Mexico indicated that Latinas/os, in comparison to European Americans, were less likely to report attending AA while in outpatient treatment (Arroyo, Westerberg, & Tonigan, 1998). In contrast, Tonigan, Connors, and Miller (1998) found no differences in AA attendance between Latinos/as and European Americans who attended outpatient substance abuse treatment. However, Tonigan and colleagues found that Latinas/os who received inpatient treatment were less likely to attend AA during the first three months of aftercare, but not nine months later, or at a three year follow-up. Recent studies indicate that Latinos/as in Project MATCH'S 12-step facilitation

condition were less likely to attend 12-step meetings than European Americans (Arroyo, Miller, & Tonigan, 2003; Tonigan, Miller, Juarez, & Villanueva, 2002). However, no ethnic differences were found for other indicators of 12-step involvement, such as having a sponsor, reading program materials, and working the steps (Tonigan, Miller et al.).

Research on Oxford House, a residential mutual-help recovery intervention, indicates that Latinos and Latinas are underrepresented in this program (Alvarez, Jason, Davis, Ferrari, & Olson, 2004). There is empirical evidence indicating that Oxford House is an effective aftercare intervention (Jason, Davis, Ferrari, & Bishop, 2001; Jason, Olson, Ferrari, & LoSasso, 2006; Jason, Davis, & Ferrari, 2007) and a diverse group of individuals utilize this program (Alvarez, Adebajo, Davidson, Jason, & Davis, 2006; Majer, Jason, Ferrari, & North, 2002). Additionally, preliminary findings indicate that at least some Latinos/as find Oxford House to be a helpful component of their recovery, and lack of information about the program along with language and cultural barriers may keep many Latinas/os from utilizing this innovative intervention (Alvarez, Jason et al.).

More research is needed on the utilization and effectiveness of mutual-help recovery interventions among larger, more representative samples of Latinos/as. There is a need to document how Latinas/os access 12-step and other mutual-help programs and the factors that may facilitate utilization of these interventions. Research that explores modifications to these groups and the relationship of these changes to access and outcome for Latinas/os differing in terms of cultural affiliation would be particularly helpful (Caetano, 1993). Also, research on mutual help group participation needs to consider factors other than mere attendance, such as commitment and participation in the groups (Tonigan et al., 1998). Because Latinos/as tend to rely on extended family members more than on friends for social support (Schweizer, Schnegg, & Berson, 1998) and they continue to have strong family ties into the third generation in the U.S. (Marin, 1993), the relationship between reliance on family for support and participation in 12-steps programs needs to be explored.

Summary of Treatment Studies

There is a critical need for research that addresses the impact of various types of substance abuse interventions for Latinos and Latinas. Studies that document modifications to treatment protocols to increase their cultural relevance for Latinas/os varying along various dimensions of acculturation are particularly needed. These studies also need to address the problems that Latinos/as bring to substance abuse treatment and the impact of these problems on retention and outcomes.

Similarly, there is a need for more research on factors that influence mutual help utilization and outcomes among Latinos and Latinas who differ on their substance-related problems and assimilation to U.S. culture. Increasing evidence indicates that 12-step participation plays a key role in recovery (Kelly, 2003), thus the importance of 12-step affiliation among Latinos and Latinas needs to be addressed.

CONCLUSIONS

There is a growing knowledge base in the areas of substance abuse prevalence and treatment among Latinos and Latinas in the United States. National surveys conducted by SAMHSA, which now include large Latino/a samples, provide information on the extent of substance-related problems and more recently, co-occurring mental health conditions. However, research indicates a need to pay closer attention to the heterogeneity of the Latina/o community in the U.S. The association between various indices of acculturation and substance use merits ongoing attention.

There is also a need for more research addressing the impact of various types of interventions on this growing segment of the U.S. population. The influence of cultural affiliation on treatment access, retention, and outcomes merits particular attention, as does the impact of mutual help programs on Latinos/as' recovery.

The multidimensional, bidirectional, and fluid nature of the process of acculturation presents a challenge to both prevalence and intervention research (Cervantes & Felix-Ortiz, 2004; Collins, 1996; Escobar & Vega, 2000; Trimble, 1995). To date, substance abuse researchers have defined acculturation in various ways, most commonly by using proxy measures such as language use, place of birth, and generation in the U.S. New developments in the measurement of acculturation (Berry, 2003; Zane & Mak, 2003) provide researchers with new ways to address the role of culture in the development and treatment of substance-related problems.

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