

Acculturation, Depression, Self-Esteem, and Substance Abuse among Hispanic Men

Elias Provencio Vasquez, PhD, RN, FAAN, FAANP

University of Texas—El Paso, El Paso, Texas, USA

Rosa M. Gonzalez-Guarda, PhD, MPH, RN, CPN and Joseph P. De Santis, PhD, ARNP, ACRN

University of Miami, School of Nursing & Health Studies, Coral Gables, Florida, USA

The demographics of the United States are rapidly changing as a result of immigration from Latin America. Predictions indicate that by the year 2050, one of every four persons in the United States will be of Hispanic ethnicity. If health disparities relating to substance abuse and related mental health conditions among Hispanics are not fully understood and addressed, these will continue to grow along with this population. The purpose of this pilot study was to describe the relationships among acculturation, depression, self-esteem, and substance abuse among a community sample of Hispanic men in South Florida ($N = 164$, 82 heterosexual men and 82 men who have sex with men). Standardized instruments measuring acculturation, depression, self-esteem, and substance abuse were administered in English or Spanish in a face-to-face interview format. Descriptive statistics and multiple logistic regression were used to illustrate participant characteristics and test relationships among the variables. Despite the fact that the majority of participants were more acculturated to the Hispanic culture than US culture, reported low levels of education and income, were depressed, and used substances, this group of men reported high levels of self-esteem. However, age and depression were the only predictors of substance abuse. Acculturation and self-esteem were not predictors of substance abuse. Clinicians need to be aware of the high rates of depression and substance abuse in this population and screen frequently for signs and symptoms of depression and substance abuse during health care encounters.

According to the Centers for Disease Control and Prevention (CDC, 2003) by the year 2050, one of every four persons in the United States will be of Hispanic ethnicity. Hispanics in the United States experience disproportionate rates of mental health conditions, such as depression and substance abuse (Dolezal, Carballo-Dieguez, Nieves-Rosa, & Diaz, 2000; Gonzalez-Guarda, Peragallo, Urrutia, Vasquez & Mitrani, 2008;

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Address correspondence to Joseph P. De Santis, University of Miami, School of Nursing & Health Studies, 5030 Brunson Drive, Coral Gables, FL 33146. E-mail: jdesantis@miami.edu

Zenmore, 2005). In fact, the 2004 National Survey on Drug Use and Health indicated that drug abuse or dependence was 9.8% in Hispanics, higher than Caucasians (8.3%) and that alcohol use among Hispanics was higher than any other ethnic minority group (Substance Abuse and Mental Health Service Administration [SAMHSA], 2005). Although this significant health problem has been noted, it is inconclusive as to what multiple factors surround and influence patterns of drug and alcohol abuse among Hispanic men.

The purpose of this pilot study was to describe the relationships among acculturation, depression, self-esteem, and substance abuse among Hispanic men. The sample in this study included both heterosexual and men who have sex with men (MSM). The term “men who have sex with men” is used to refer to men who have sex with other men, despite self-identity as gay, bisexual, or heterosexual (CDC, 2009). The use of this term is controversial, as many MSM believe that the term dismisses intimacy between men, and only focuses on sexual behaviors. A more complete definition of MSM includes men who identify as gay and have affiliation with the gay community; men who are bisexual and have relationships with both men and women, but may not affiliate with the gay community; and those men who have sex with men, but do not self-identify as either gay or bisexual and do not have any affiliation with the gay community (Mallinson, 2010).

ACCULTURATION AND SUBSTANCE ABUSE

Acculturation and its effects on health outcomes of Hispanics in the United States continue to be of interest to researchers and health care providers. This interest is related to the fact that acculturation plays an important role in the health and health care outcomes of Hispanics (Caetano & Clark, 2003). Lee and colleagues (2006) studied the social processes that underlie the relationship of acculturation and heavy drinking behavior among Hispanics immigrating to the Northeast United States from a qualitative perspective ($N = 36$). Their results

indicated that changes in lifestyle in the US might be related to changes in drinking behavior. For example, participants reported missing daily contact and social interaction with family and friends and, since these newly-arrived immigrants had difficulty communicating in English, social isolation, boredom, and loneliness resulted that promoted alcohol consumption. Similar findings have been found in qualitative studies conducted with Hispanic men in South Florida (Gonzalez-Guarda, Ortega, Vasquez & De Santis, 2010).

A number of quantitative research studies have described the relationship between acculturation and substance abuse. Caetano, Ramisetty-Mikler, Wallisch, McGarth, and Spence (2008) analyzed data from a survey conducted along the Texas-Mexico border. This survey included 472 male and 484 female Hispanics. The results suggested that acculturation to US culture was related to lower rates of alcohol use among men and higher frequency of heavy episodic drinking among women. These findings need further investigation as it may imply that gender may moderate the relationship between acculturation and substance abuse. Other researchers have reported contradictory results. For example, a study of 784 Hispanic men aged 18 or older found that men with higher levels of acculturation and higher incomes were two times more likely to consume alcohol than less acculturated men with lower incomes. In contrast, men with lower incomes and higher levels of acculturation were less likely to consume alcohol. The researchers concluded that acculturation has a direct influence on alcohol consumption, but that it is mediated by income (Karriker-Jaffe & Zemore, 2009). More research is needed to clarify the relationship between acculturation and substance abuse.

DEPRESSION AND SUBSTANCE ABUSE

Although the relationship between depression and substance abuse is well-documented in the literature (Nunes & Levin, 2004), few studies are available that document this relationship among Hispanic men. This is related to the fact that the majority of the studies that have examined the relationship between these variables among diverse samples have not conducted their analysis according to race and ethnicity. Studies that have focused specifically on Hispanics tend to include both male and female participants and have not explored relationships between depression and substance abuse according to gender. These are important variables to consider as differences have been noted between racial and ethnic groups and gender in regards to both depression and substance abuse, as well as the relationship of these to other variables (Caetano & Cunradi, 2003).

Studies also have documented differences in depression and substance abuse among various Hispanic subgroups. Alegria and colleagues (2006) found that Puerto Ricans had higher rates of depression and substance abuse than other Hispanic subgroups. When Colombians, Dominicans, and Puerto Ricans were compared, some distinct differences were noted, including the fact that Puerto Ricans were more likely to abuse drugs than the other

two groups. Nevertheless, alcohol and drug abuse increased the risk of depression in the three groups of Hispanic men, regardless of country of origin (Zayas, Rojas, & Malgady, 1998).

Most studies on depression and substance abuse include acculturation as one of the study variables. However, the role that acculturation plays in predicting substance abuse when depression is considered and controlled for is unclear. Although a number of studies have found that lower levels of acculturation tend to be a protective factor against depression and, in turn substance abuse (Alegria, Canino, Stinson & Grant, 2006; Alegria et al., 2007; Pena et al., 2008), other studies have found no such effect (Zemore, 2005).

SELF-ESTEEM AND SUBSTANCE ABUSE

Few studies have examined the relationship between self-esteem, the favorable or unfavorable attitude towards self (Rosenberg, 1965), or synonymous constructs such as self-worth, and substance abuse among adult Hispanic men. Most of the literature describing the relationship between these two health-related variables have focused on adolescents and non-Hispanic heterosexual populations. Studies specifically focusing on Hispanics have concentrated on MSM and the role that self-esteem plays in predicting risky sexual behaviors (De Santis, Colin, Vasquez, & McCain, 2008) or the relationship between acculturation and self-esteem among older Mexican Americans (Meyler, Stimpson, & Peek, 2006). However, to the authors of this paper's best knowledge, no studies have been published that examine the relationship between self-esteem and substance abuse among heterosexual Hispanic men.

The small number of studies that have explored the relationship between substance abuse and self-esteem (or similar concepts) among Hispanic MSM have found no relationship between these two variables. For example, in a study exploring the association between substance use and unprotected anal sex among Latino MSM in New York City, self-worth was inversely associated with the frequency of both unprotective receptive and/or insertive anal sex. This indicated that individuals with a lower sense of self-worth more likely to engage in these high risk behaviors. Self-worth remained a significant predictor of unprotected anal sex even when controlling for sensation seeking, machismo, acculturation, having one-night stands, and alcohol or drug use (Dolezal, Carballo-Diequez, Nieves-Rosa & Diaz, 2000). However, self-worth was not associated with the frequency of alcohol or drug use among this sample. Nevertheless, given that self-worth is a slightly different concept than self-esteem, the relationship between self-esteem and substance abuse needs to be further investigated among this population.

Among Hispanic MSM, there are additional factors that are related to self-esteem. Hispanic MSM may experience discrimination associated to ethnic minority status and homophobia related to sexual minority status. The effects of these multiple layers of potential social discrimination and their relationship to the self-esteem and psychological well-being among Hispanic

MSM were studied by Diaz and colleagues (2001). Hispanic MSM from three cities with large Hispanic populations (Miami, Los Angeles, and New York; $N = 912$), reported pathways in which these factors predicted psychological distress. The experiences of social discrimination (defined as homophobia, racism, and poverty) were directly related to psychological distress and indirectly related to this outcome in that it predicted low-self esteem (mediator), which in turn predicted psychological symptoms. Although studies with Hispanic MSM have provided keen insight into the relationship between self-esteem and substance abuse, it is unknown if similar findings would be found among Hispanic men in general.

As previously discussed, research studies have been conducted that document the relationship of acculturation and depression, but limited data is available on self-esteem and substance abuse among Hispanic men. In addition, a significant gap in the research literature is evident in that studies that have examined the influence of acculturation, depression, and self-esteem on the substance abuse behaviors of Hispanic men, both heterosexual and MSM, have yet to be conducted.

STUDY METHODS

Design

The purpose of this pilot study was to examine the relationships among acculturation, depression, self-esteem, and substance abuse. This study used questionnaires that were administered to 164 Hispanic men in South Florida (82 heterosexual and 82 MSM). This sample size was adequate to explore the moderate effects of five variables on substance use at an alpha .05 and power of .80 (Soper, 2010). Questionnaires were administered in a face-to-face standardized interview format and included a battery of standardized measures for acculturation, depression, self-esteem, and substance abuse.

Participants and Setting

In order to be eligible to participate in this study, candidates had to self-identify as Hispanic or Latino, be English- or Spanish-speaking, between the ages of 18 and 55, and reside in South Florida. This sample was limited to young and middle adults (from 18 to 35 and 36 to 55, respectively), because the psychological needs of these age groups may have varied significantly from those of late adulthood (Erikson, 1950). Candidates that reported being a tourist or planning to move away from South Florida within the following year were excluded from the study. Participants were recruited through posting and distributing flyers and business cards during community and social events (e.g., block parties, flea markets, music festivals) at local businesses where the targeted population frequented (e.g., cafes, home repair stores, nightclubs), community clinics, and community-based organizations throughout Miami-Dade County. Snowball sampling, in which participants were en-

couraged to tell family and friends about the study (Miles & Huberman, 1994) was also used.

Procedures

Institutional Review Board approval for this study was obtained before initiating research activities. Candidates interested in participating in the study were given the study phone number to call and be screened for the study, and, if eligible, to be scheduled for the face-to-face structured interview. Upon meeting with the participants, study personnel explained the study, answered any questions the participant had, and obtained informed consent. The standardized questionnaire was administered to the participant in a face-to-face interview format with the assistance of a data management computerized program. Because questions were read to the participants, literacy was less of a concern. Each interview took approximately 1.5 to 2 hours to complete. Upon completion, the participants were paid \$30 to compensate them for their time and travel.

Study Variables

Demographics

The participants' ages were collected when they were screened for eligibility over the phone. Additional demographic information was collected at the beginning of the interview through the administration of a standardized demographic questionnaire. The participants were asked to report country of origin, the number of years living in the US, civil status, whether they were currently living with a partner, the number of children they had, religion, years of education, employment status, individual/household income, and health insurance status. Age and income were the only components of the demographic information that were included in the data analysis for this paper as control variables. These were selected because these have emerged consistently in the literature as predictors of substance abuse (Grzywacz, Quandt, Isom, & Arcury, 2007; Orozco & Lukas, 2000). Age was measured in years. Income was measured by asking participants to report the total amount of money they and their family lived on last month. Responses were categorical (less than \$500, \$500–\$999, \$1,000–\$1,999, \$2,000–\$2,999, \$3,000–\$3,999, \$4,000–\$4,999, \$5,000–\$5,999, \$6,000 or more) in order to help participants feel more comfortable reporting their income.

Acculturation

The Bidimensional Acculturation Scale (BAS; Marin & Gamba, 1996) was used to measure the acculturation level of the participants. This tool consists of 24 questions about the participant's language preferences, customs, and practices. This measure of acculturation is bidimensional in that it contains two subscales that measures how acculturated respondents are to the US mainstream culture (non-Hispanic subscale) and how acculturated they are to their Hispanic culture of origin (Hispanic subscale). Each subscale contains 12 questions with

responses that range from 1 (almost never) to 4 (almost always). A mean score for each subscale is calculated. A higher score on the subscales indicates a greater level of cultural activities for that particular domain. A mean score of ≥ 2.5 for both the Hispanic and the non-Hispanic subscales is indicative of biculturalism. High internal consistency has been reported for the BAS among similar samples (Gonzalez-Guarda, Peragallo, Vasquez, Urrutia, & Mitrani, 2009; Marin & Gamba, 1996). In this study the BAS as a whole demonstrated good reliability, with the non-Hispanic subscale (Cronbach's $\alpha = .96$) performing better than the Hispanic subscale (Cronbach's $\alpha = .86$).

Depression

The Center for Epidemiologic Studies Scale (CES-D; Radloff, 1977) was used to assess depressive symptoms. This scale consists of 20 items that measure the frequency of depressive symptoms in the past week. Responses are coded according to the number of days in the past week the respondent experiences these symptoms. Responses are summed for a total score that can range from 0 to 60 points. Scores of 16 and above indicate a likelihood of clinical depression. This scale is widely used in community and population-based research and has been translated and validated in Spanish (Roberts, 1980). The CES-D demonstrated good internal consistency (Cronbach's $\alpha = .82$).

Self-Esteem

The Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965, 1989) was used to assess self-esteem among study participants. This measure consists of ten questions regarding the participants' perceptions of themselves. The responses to these items range from 1 (strongly agree) to 4 (strongly disagree). Total scores range from 10 to 40, with high scores indicating higher levels of self-esteem. This scale has been reliably used with Hispanic male and female community samples in South Florida and has been shown to have strong predictive validity (De Santis, Colin, Vasquez, & McCain, 2008; Gonzalez-Guarda et al., 2009). The self-esteem scale demonstrated good internal consistency with this sample (Cronbach's $\alpha = .84$).

Substance Abuse

Substance abuse was defined as reporting being drunk or high on drugs at least once during the past three months. This information was captured by two questions in the Substance Abuse Behaviors Questionnaire (Kelly et al., 1994). These questions asked participants how often they were drunk in the last three months and how often they were high on drugs in the last three months. Responses to these two questions were combined to create a substance abuse dummy variable that identified participants who reported being drunk or high at least once in the last three months. The alcohol and illicit abuse categories were combined because the majority of participants reported never being drunk (77.4%) or high on drugs (79.9%) in the past three months. The same adapted version of the Substance Abuse Behaviors Questionnaire was previously successfully used with

a community sample of Hispanics in the US (Peragallo et al., 2005). Because substance abuse was a dummy variable (1 = reporting being drunk and/or high, 0 = not reporting being drunk and/or high), no psychometric properties are reported.

Data Analysis

Descriptive statistics were used to describe study characteristics. Pearson's correlations were conducted between the major predictors to assess for co-linearity. Because Hispanic acculturation and substance abuse were the only two predictors that were related and the effect was small ($r = -.172$, $p = .028$) both were included in the regression model. Multiple logistic regression was used to test the hypothesized relationships and calculate adjusted odds ratios (AORs) and 95% confidence intervals. All the predictors (age, income, acculturation, depression, and self-esteem) were continuous and were entered simultaneously into the model. The outcome variable, substance abuse, was dichotomous and compared individuals reporting substance abuse in the last three months ($x = 1$) to those who did not ($x = 0$). All data was analyzed using SPSS, version 17.0.

RESULTS

Participant Characteristics

The characteristics of the community sample of Hispanic men participating in project VIDA are summarized in Tables 1 and 2. The average age of participants was 41.25 years ($SD = 9.03$). Participants had spent between months to their entire lifetimes in the US ($M = 18.72$ years, $SD = 13.05$) and came from 13 different countries in Latin America as well as the US. The majority of participants were from Cuba ($n = 67$, 40.9%) followed by the United States ($n = 24$, 14.6%) and Puerto Rico ($n = 23$, 14.0%). Almost half of the participants were bicultural ($n = 79$, 48.2%). Large proportions were exclusively acculturated to the Hispanic culture ($n = 69$, 42.1%), with a small percent being exclusively acculturated to the US culture ($n = 16$, 9.8%). Participants had a mean of 12 years of education ($M = 12.49$, $SD = 3.65$ and the majority reported a

TABLE 1
Characteristics of a Community Sample of Hispanic Men
Participating in Project VIDA ($N = 164$)

	Mean (M)	Range	SD
Age	41.25	(20–56)	9.03
Years in the U.S.	18.71	(0–54)	13.05
Years of education	12.49	(0–24)	3.65
Hispanic	3.38	(1.42–4.00)	0.57
Acculturation			
U.S. Acculturation	2.78	(1.00–4.00)	0.86
Depression	19.87	(2–52)	11.45
Self-Esteem	21.40	(7–30)	5.05

TABLE 2
 Characteristics of Hispanic Men Participating in Project
 VIDA: Categorical Variables ($N = 164$)

	% (n)
Country of Origin	
Cuba	40.9 (67)
United States	14.6 (24)
Puerto Rico	14.0 (23)
Nicaragua	7.9 (13)
Honduras	6.1 (10)
Colombia	6.1 (10)
Mexico	4.3 (7)
Peru	1.2 (2)
Argentina	1.2 (2)
Dominican Republic	1.2 (2)
El Salvador	0.6 (1)
Costa Rica	0.6 (1)
Chile	0.6 (1)
Ecuador	0.6 (1)
Individual Monthly Income ^a	
Less than \$500	41.0 (64)
\$50–\$999	21.8 (34)
\$1,000–\$1,999	20.5 (32)
\$2,000–\$2,999	8.3 (13)
>\$ 3,000	8.3 (13)
Acculturation (BAS)*	
High Hispanic only	42.1 (69)
High US only	9.8 (16)
High on both (Bicultural)	48.2 (79)
Substance Abuse in past three months	
Ever been drunk on alcohol	22.6 (37)
Ever been high on drugs	20.1 (33)
Ever been drunk or high	32.3 (53)

Note. Some data are missing.

^a $n = 156$.

*BAS = Bidimensional Acculturation Scale (Marin & Gamba, 1996) measures Hispanic, Non-Hispanic acculturation (i.e., US acculturation) and biculturalism (i.e., individuals scoring high on both the Hispanic and non-Hispanic acculturation subscales).

monthly household income of less than \$1,000 a month ($n = 98, 59.7\%$).

The mean score of the sample for depression was over the clinical cut-off ($M = 19.87, SD = 11.45$), indicating that the majority of the participants scored high on depressive symptoms. However, participants as a group scored relatively high on self-esteem ($M = 21.40, SD = 5.05$). Approximately one-third of participants reported ever being drunk on alcohol or high on drugs in the past three months ($n = 53, 32.3\%$). While 22.6% ($n = 37$) of participants reported being drunk on alcohol in the past three months, 20.1% ($n = 33$) reported being high on drugs.

Predictors of Substance Abuse

The only variables that were significant predictors of substance abuse were age ($Wald \chi^2 = 12.13, p < 0.001$) and depression ($Wald \chi^2 = 6.16, p = 0.00$). Participants that were older were less likely to report substance abuse in the past three months ($AOR = 0.93, 95\% CI = 0.89, 0.97$). Conversely, participants reporting more depressive symptoms were more likely to report substance abuse ($AOR = 1.05, 95\% CI = 1.01, 1.09$). Neither acculturation to the Hispanic culture, nor to the US was associated with substance abuse ($Wald \chi^2 = 1.24, p = 0.27, Wald \chi^2 = 3.46, p = 0.06$, respectively). Self-esteem was also not related to substance abuse ($Wald \chi^2 = 0.16, p = 0.69$) (see Table 3).

DISCUSSION

This study explored the relationships among acculturation, depression, self-esteem, and substance abuse. The results revealed some unique demographic variables and significant findings that require further discussion. First, this study included a large number of foreign-born men (85.4%) with the largest majority born in Cuba (40%). These demographics reflect the unique ethnic composition of South Florida, where a large majority of the foreign-born population is of Cuban descent (U.S. Census Bureau, 2010). Consequently, although the sample represents Hispanic men living in South Florida, it does not represent the general population of Hispanic men in the United States. Worth noting however, is that within Hispanic subgroups, there is less research conducted with Cuban men. Second, a large number of the participants faced numerous demographic and psychological vulnerabilities (e.g., being foreign-born, having low levels of acculturation, education, and income, and having high levels of depressive symptoms) that, if combined, had the potential to influence substance abuse behaviors. Thus, the sample provides rich information regarding a subpopulation that could benefit from substance abuse and other mental health services.

The findings related to substance abuse provide the most significant information on this population of men. In terms of alcohol abuse, the results of this study support previous work by SAMSHA (2006) that reports alcohol abuse rates among Hispanic populations in the United States at 25.7%. In this study 22.6% reported being drunk on alcohol in the past three months. Interestingly, the rates of illicit drug use vastly differ from the 7.6% reported in Hispanic populations (SAMSHA, 2006). Over 20% of the men in this study reported illicit drug use, which is a much larger percentage than reported in previous studies. The high rates of illicit drug use in this sample may be related to the oversampling of illicit drug users as a result of convenience sampling. For example, the research team became aware that one participant, who was an illicit substance user, actively recruited other men in his substance abuse network and referred them to the study. This resulted in a high number

TABLE 3
 Logistic Regression Analyses Testing Hypothesis that Acculturation, Depression, and Self-Esteem Predicts Substance Abuse
 among a Community Sample of Hispanic Men ($N = 164$)

	<i>b</i>	<i>SE</i>	<i>Wald</i> χ^2	<i>p</i> Value	<i>AOR(95% CI)</i>
Age	-0.07	0.02	12.13	0.00	0.93 (0.89, 0.97)
Hispanic Acculturation	0.47	0.43	1.24	0.27	1.61 (0.70, 3.70)
US Acculturation	0.58	0.31	3.46	0.06	1.78 (0.97, 3.27)
Depression	0.05	0.02	6.16	0.01	1.05 (1.01, 1.09)
Self-Esteem	-0.02	0.05	0.16	0.69	0.98 (0.90, 1.07)

of illicit substance abusers, which is not representative of the Hispanic male population.

Acculturation did not have an effect on substance abuse. Although previous studies with Hispanic men have suggested that both low and high levels of acculturation may be a protection factor against substance abuse (Caetano et al., 2008; Lee, Lopez, Cobly, Tejada, Garcia-Coll & Smith, 2006), no effect was found in this study. It may be that other sources of stress that are associated with the acculturation process, such as ethnic and gender identification (Orozco & Lukas, 2000), changes in the family and cultural systems, employment (Cervantes et al., 1991), or low socioeconomic status may place these men at risk for substance abuse (Williams, 2003). Additionally, acculturation may not have played an important role in influencing substance abuse behaviors among this sample because South Florida has a large Hispanic population and Spanish is commonplace. These two factors provide a very different context for low acculturated Hispanic men than do other regions in the US where being Hispanic and speaking Spanish may be more stressful. More research is needed to tease out the effects of acculturation and related stressors on the mental health of Hispanic men.

Another interesting finding was the high level of self-esteem found in the sample and that this was not a predictor of substance abuse. Despite that the sample encountered numerous stressors that could have negatively impacted their perceptions of themselves, such as low acculturation, education, and incomes, and high levels of depression, this group of men scored high on the self-esteem scale. One possible explanation for this was that the self-esteem scale used did not adequately capture the construct of self-esteem among this sample. It is also possible that demonstrating a high esteem of oneself is a strong cultural value among Hispanic men and that this value was manifested in the sample through over-endorsing positive responses to questions relating to their self esteem. Future research needs to be conducted to evaluate the validity of self-esteem scales used with this population and to develop other culturally congruent scales that measure the concept of self-worth.

The study results revealed a link between depressive symptoms and substance abuse among Hispanic men. These findings mirror previous research supporting a relationship between depression and substance abuse (Leshner, 1999; Nunes & Levin, 2004). However, few studies have focused on depression and

substance abuse as it relates to Hispanic men while simultaneously considering other demographic and psychological variables that could also place them at risk. The findings from this study contribute to the knowledge base specific to Hispanic men by demonstrating that depression, not other characteristics, such as acculturation and income, of vulnerable groups of Hispanics, is what appears to place this group at risk for substance abuse. This information could be used to support the development of culturally appropriate mental health prevention and treatment programs that aim to support the psychological well being of Hispanic men.

There are additional study limitations that are worth mentioning. As discussed, this sample consisted of a convenience sample of Hispanic men in South Florida. The descriptive statistics and high frequency of depressive symptoms reported by the sample suggested that participants comprised an especially vulnerable group of Hispanic men. As such, caution must be taken when generalizing the results to other groups of Hispanic men in the US. Moreover, this study was cross-sectional in design. Therefore, cause and effect relationships cannot be established. Lastly, although the measures used in this study have been reliably used with similar samples and demonstrated strong psychometric properties, the ability of some of these measures (e.g., self-esteem scale, acculturation scale) to validly capture the constructs of interest could be questioned. More research is needed to advance the state of the science of psychosocial and behavioral instruments for Hispanics.

CONCLUSION

The results of this study have implications for practice and research involving Hispanic men. Clinicians working with Hispanic men need to be acutely aware of certain health conditions prevalent in this population. Being knowledgeable of the high rates of depression in this population will support frequent screening for signs and symptoms of this mental health condition during health care encounters. Clients who have signs and symptoms of depression need to be referred to mental health providers who can diagnose and treat depression in a culturally-sensitive manner. In order to do so, clinicians need to understand the unique vulnerabilities of Hispanic men, their cultural beliefs and values, and what strategies appear to this

population. Moreover, clinicians have the responsibility of screening for substance abuse among members of this population. Clients who have a positive screen for substance abuse, or are at risk for substance abuse (i.e. depression, anxiety), should be referred to the appropriate culturally-specific prevention and treatment programs in their community, as these have been found to be effective and engaging (Substance Abuse and Mental Health Service Administration [SAMHSA, 2007]).

The findings suggest that interventions developed for Hispanic men need to include components addressing depression, substance abuse, and cultural factors that may contribute to psychological well being (i.e., acculturation stressors). Hispanic men should be educated on the early signs and symptoms of depression and how this mental health condition can affect behavior such as substance abuse. By appreciating and valuing early identification of depression, Hispanic men may minimize their vulnerability to abuse alcohol or drugs. Incorporating cultural factors into an intervention for Hispanic men is essential. For example, interventions should include strategies that encourage Hispanic men to identify and positively respond to stressors associated with the acculturation process. Nevertheless, more research is needed to identify the stressors that can contribute to depression and substance abuse among this population and to test the efficacy and effectiveness of mental health interventions that address these.

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