Integrating Cultural Variables into Drug Abuse Prevention and Treatment with Racial/Ethnic Minorities

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INTEGRATING CULTURAL VARIABLES INTO DRUG ABUSE PREVENTION AND TREATMENT WITH RACIAL/ETHNIC MINORITIES

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A set of variables, identified as "cultural variables," is introduced as important descriptors of the life experiences of people from the major ethnic/racial minority groups in the United States. It is stated that most contemporary models for prevention and treatment of substance abuse are "culturally blind" to the effects of these cultural variables on the risk of substance abuse among racial/ethnic minority people. Accordingly, a viable strategy for culturally relevant research and program design is to integrate these cultural variables into extant models to create culturally rich models for research as well as for the development of prevention and treatment programs. The use of "model programs" is discussed in regard to the competing aims of maintaining program fidelity while also making cultural adaptations to these model programs to make them more culturally relevant. Strategies and recommendations are presented for integrating cultural variables into prevention and treatment programs that purport to serve racial/ethnic minority people.

SUBSTANCE ABUSE PREVENTION AND TREATMENT: ISSUES IN RACIAL/ETHNIC MINORITIES

ROLE OF CULTURE IN PREVENTION AND TREATMENT

In the past, substance abuse prevention and treatment programs have given limited or no attention to *cultural variables* as potential determinants of substance use and/or as integral components of programs for substance abuse prevention and treatment. Also, in the past, research studies on substance abuse have examined race and ethnicity, but have done so in a "culturally shallow" manner, typically

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conducting comparative studies of how one or more racial/ethnic groups may differ from a White-majority reference group (Barrera, Castro, & Biglan, 1999). This reference to cultural factors relates to aspects of culture described as "cultural constructs" or "cultural variables," which include specific beliefs, values, norms and behaviors that capture the core life experiences of racial/ethnic minority people (Cuellar, Arnold, & Gonzalez, 1995).

Table 1 presents a set of cultural variables that are often mentioned within the alcohol and drug abuse research literature that examines the lives of the major racial/ethnic groups in the United States: Hispanics/Latinos, African Americans, Asian Americans, and American Indians. Cultural variables which relate to interpersonal relations include: familism (Sabogal, Marin, Otero-Sabogal, & Marin, 1987), individualism-collectivism (Oyserman, Coon, & Kemmelmeier, 2002; Tata, & Leong, 1994), *personalismo*, *respeto*, *simpatia* (Griffith, Joe, Chatham, & Simpson, 1998; Marin & Marin, 1990), and *tiu lien* (loss of face) (Shon & Ja, 1982). Other cultural variables that operate as personal traits include: level of acculturation (Cuellar, Harris, & Jasso, 1980; Cuellar, Arnold & Gonzalez, 1995; De la Rosa, Vega, & Radish, 2000; Klonoff & Landrine, 1999; Marin & Gamboa, 1996; Suinn, Rickard-Figueroa, Lew, & Vigil, 1987), Afrocentricity (Baldwin & Bell, 1985), biculturalism, (La Fromboise, Coleman, & Gerton, 1993), cultural flex (Ramirez, 1999), enculturation (Wolfe, Yang, Wong, & Atkinson, 2001), ethnic identity (Bernal & Knight, 1994; Brook, Whiteman, Balka, Win, & Gursen, 1998; Castro, Sharp, Barrington, Walton & Rawson, 1991; Phinney, 1990), ethnic pride (Castro, de Anda, Abeita & Morgan-Lopez, 1999; Marsiglia, Kulis, & Hecht, 2001), ethnic affiliation (Brook, Balka, Brook, Win, & Gursen, 1998) field independence and field sensitivity (Ramirez, 1999), *machismo* (Cuellar, Arnold, & Gonzalez, 1995; Fragoso & Kashubeck, 2000), *marianismo*, (Gil & Vasquez, 1996), modernism (Ramirez, 1999), spirituality (Brome, Owens, Allen, & Vevaina, 2000; Garrett & Wilbur, 1999), and traditionalism (Castro & Gutierres, 1995; Ramirez, 1999).

Given that most ethnic minority cultural variables lend special attention to issues involving relationships within broad family networks, and to propriety in interpersonal relationships (McGoldrick, & Giordano, 1996), ethnic minority cultures may be aptly described as "relational cultures" (Oyserman, Coon, & Kemmelmeier, 2001). Accordingly, several ethnic minority cultural variables have evolved that refer to specific aspects of interpersonal and intrapersonal relations. The cultural concepts that examine interpersonal styles that affect the nature and quality of relationships include: familism, individualism-collectivism, *personalismo, respeto, simpatia, tiu lien* (loss of face). Similarly, the cultural variables that examine interpersonal factors or personal traits that affect social relationships and the person's place within the larger society include: level of acculturation, Afrocentricity,

TABLE 1
MAJOR CULTURAL VARIABLES FOR RACIAL/ETHNIC MINORITIES

Cultural Variable	Description/ Resource
Interpersonal Relations	
* Familism	* Strong family orientation, involvement, and loyalty (Cuellar, Arnold, & Gonzalez, 1995: Sabogal, Marin, Otero-Sabogal, & Marin, 1987).
* Individualism-Collectivism	* A cognitive and behavioral orientation regarding a tendency to favor an individualistic, self-oriented style, or to favor a group-oriented collectivistic style (Oyserman, Coon, & Kemmelmeier, 2002; Tata & Leong, 1994).
* *Personalismo*	* Preference for personalized attention and courtesy in interpersonal relations (Cuellar, Arnold, & Gonzalez, 1995).
* *Respeto*	* Emphasis on respect and attention to issues of social position in interpersonal relations, as for example, respect for elders.
* *Simpatia*	* A deferential posture towards family members, and other efforts to maintain harmony in family and in interpersonal relations. Traits of agreeableness, respect, and politeness are core aspects of *simpatia* (Griffith, Joe, Chatham, & Simpson, 1998; Marin & Marin, 1991).
* *Tiu lien* (Loss of Face)	* Among Asian Americans, especially among those who are more traditional, loss of face involves the shame of improper behavior or a failing to live up to social obligations. Engaging in proper conduct helps to "save face" and avoid this loss of face (Shon & Ja, 1982).

TABLE 1 CONTINUED.

Cultural Variable	Description/ Resource
Personal Traits	
* Acculturation	* Level of belief and behavior that conforms to the mainstream U.S. American way of life (Cuellar, Harris, & Jasso, 1980; Cuellar, Arnold & Gonzalez, 1995; De la Rosa, Vega, & Radish, 2000; Klonoff, & Landrine, 2000; Marin & Gamboa, 1996; Snowden & Hines, 1999; Suinn, Rickard-Figueroa, Lew, & Vigil, 1987)
* Afrocentricity	* Cultural orientation and pride towards being African American (Baldwin & Bell, 1985).
* Biculturalism	* A well developed capacity to function effectively within two distinct cultures based on the acquisition of the norms, values and behavioral routines of the dominant culture as well as those of one's own group (La Fromboise, Hardin, Coleman & Gerton, 1993; Rotherman-Borus, 1990).
* "Cultural Flex"	* Capacity to function effectively and to "shuttle" adaptively between two cultures (Ramirez, 1999).
* Enculturation	* An orientation towards learning about one's ethnic culture (Wolfe, Yang, Wong, & Atkinson, 2001).
* Ethnic Identity	* Personal identification with one's ethnic cultural group or group of origin (Bernal & Knight, 1994; Brook, Whiteman, Balka, Win, & Gursen, 1998; Castro, Sharp, Barrington, Walton, & Rawson, 1991; Felix-Ortiz & Newcomb, 1995; Keefe, 1992; Phinney, 1990).
* Ethnic Pride	* Positive feelings, pride in one's own ethnic group; pride in belonging to the group (Castro, de Anda, Abeita, & Morgan-Lopez, 1999; Marsiglia, Kulis, & Hecht, 2001).
* Ethnic Affirmation and Belonging	* An expression of personal identification as a member of an ethnic minority group (Brook, Balka, Brook, Win, & Gursen, 1998).

TABLE 1 CONTINUED.

Type Cultural Variable	Description/ Resource
Personal Traits	
* Field independence	* A "self-oriented" preference or style in ways of thinking and in ways of approaching work and tasks (Ramirez, 1999).
* Field sensitivity	* An "others oriented" preference or style in ways of thinking and ways of relating to others (Ramirez, 1999).
* *Machismo*	* A traditional Latino gender role orientation that accepts male dominance as a proper form of male conduct (Cuellar, Arnold & Gonzalez, 1995; Fragoso & Kashubeck, 2000).
* *Marianismo*	* A traditional Latino female role orientation that accepts motherly nurturance, and the demure and pure identity of a virgin (Virgin Mary) as a proper form of female conduct (Gil & Vasquez, 1996).
* Modernism	* An emphasis on accepting change and modern beliefs and behaviors as better and preferred ways to live one's life (Ramirez, 1999).
* Spirituality	* A belief in a higher source of strength and well-being, and a related appreciation for natural and beneficial aspects of the world (Brome, Owens, Allen, & Vevaina, 2000; Garrett & Wilbur, 1999).
* Traditionalism	* An emphasis and value of cultural beliefs and behaviors, customs and traditions as the correct and preferred ways to live one's life (Castro & Gutierres, 1995; Ramirez, 1999).

biculturalism, cultural flex, enculturation, ethnic affirmation, ethnic identity, ethnic pride, field independence and sensitivity, *machismo, marianismo*, modernism, spirituality and traditionalism. This set of cultural variables consists of several, but not all of the variables that can be regarded as cultural variables.

Inattention or superficial coverage of these cultural variables in substance abuse prevention and treatment raise questions about the true relevance and applicability of such programs. Prevention and treatment programs that ignore cultural issues may well be ineffective when administered to racial/ethnic minority people because such programs are "culturally blind," to important service needs of racial/ethnic minority people especially for those who are very traditional and/or low in level of acculturation (Faryna & Morales, 2000; Marin et al., 1995). This cultural omission calls for future health services research that explicitly examines how these and other cultural variables may enhance the cultural relevance, efficacy and effectiveness of prevention and treatment programs that are administered to racial/ethnic minority people (Botvin, Schinke, Epstein, Diaz, & Botvin, 1994).

In the fields of substance abuse prevention and treatment, effectiveness refers to a program's true capacity to prevent or to treat substance abuse within a community setting. In principle, effectiveness could be enhanced by the cultural adaptation of an existing "model program," as the result of tailoring that program to the unique needs of a special population of clients, e.g., drug abusing women who are victims of domestic violence, or drug using men who have sex with men (MSM), etc. Towards this aim, culturally-relevant prevention research and program evaluation are needed to test the adequacy of such program adaptations, and ultimately to develop clear prescriptive guidelines on the best ways to conduct such program adaptations based on validated scientific and evidence-based strategies. This research would aim to make model programs more culturally-relevant, while also maintaining fidelity in implementing the program's original goals and treatment components and enhancing the program's effectiveness when administered to members of a special population (Botvin, 1995).

Importance of Culture in Prevention and Treatment

Recently, the U. S. Surgeon General released a report on minority health that asserts that, "culture counts" (U. S. Department of Health and Human Services [DHHS], 2001a). This report emphasizes that cultural variables operate as significant factors in the mental and behavioral health of minority people. It also points to the need for culturally-relevant research and practice that explicitly incorporates cultural variables into prevention and treatment programs. In the service of this aim, the need exists for the development of culturally-relevant, and culturally-rich conceptual frameworks and their related models for effective prevention and treatment with

racial/ethnic minority populations. Such models would explicitly describe the potential protective or risk-producing effects that might be exerted by these various cultural variables.

The concept of culture has been defined in many different ways. The Surgeon General's report broadly defines culture as a "common heritage or set of beliefs, norms, and values, shared group attributes and a system of shared meaning" (U.S. DHHS, 2001a, p. 14). Thus, culture consists of information and culturally-prescribed "lifeways," such as customs and traditions. Language, religious beliefs, nationality, and family heritage are major sources of this "cultural information." Furthermore, long-standing cultural traditions promote a sense of identification and belonging that helps members of a cultural group to bind together as "a people."

This complex entity called "culture," is both an environmental and a behavioral variable, and thus can be segmented into two basic types: environmental (objective) elements of culture, and psychological (subjective) elements of culture. The objective environmental elements include the local environment and cultural creations such as works of art, buildings, and community norms that define socially appropriate behavior. The subjective or psychological elements of culture consist of cognitive factors that include: beliefs, attitudes, expectations, values, and family norms. This cultural information forms an integrated system of beliefs, a historically shaped manner of "looking at the world" and for "interpreting the meaning of objects and events." It also offers problem solving strategies that include culturally-prescribed ways of coping with various life stressors.

As noted previously, existing model programs may be expanded by explicitly incorporating cultural variables into their activities. For example, substance abuse program content that is sensitive to cultural and gender issues in drug abuse among Latino males can address the drug user's beliefs and behaviors associated with the cultural concept of *machismo.* One form of machismo, a negative form, is characterized primarily by an attitude of male dominance and entitlement, the abuse of others, the frequent use of profanity, and irresponsibility in meeting social obligations. These personality traits and behaviors are also associated with illicit drug use and elevated HIV risk (Fragoso & Kashubeck, 2000). However, beyond this stereotype of irresponsible Latino hyper-masculinity, another form of *machismo*, responsible machismo might operate as a protective factor against the abuse of alcohol and illicit drugs. *Responsible machismo* is characterized by a tough but civil demeanor- being a *caballero* (Gil & Vasquez, 1996), that is also characterized by responsibility in social obligations, and by behavior that provides for the family and that protects the family from harm. While the behavior exhibited by any given Latino male client will consist of varying degrees of expression of these two extremes of *macho* behavior, a drug abuse treatment program that is "culturally blind" to

issues of *machismo* with male Latino drug users will fail to address significant treatment-related gender identity and cultural issues that center around deep-seated *macho* beliefs and attitudes that could maintain the abuse of drugs and alcohol.

Similarly, *marianismo*, the Latino role prescription for being an idyllic "virgin-like" spouse (Gil & Vasquez, 1996), might operate as a risk factor for depression, based in part on a Latino woman's *aguante*, forbearance in tolerating years of abuse at the hands of an abusive *macho* spouse. By contrast, strong identification with the beliefs and behaviors of *marianismo* might also provide these Mexican American females with protection against the abuse of alcohol and illicit drugs. These cultural scenarios illustrate the need for *culturally-rich models* that build on existing drug abuse prevention or treatment models, as these expanded models can guide the design of culturally-relevant prevention and treatment programs for racial/ethnic minority clients. Early versions of these models will need to be tested empirically to avoid stereotyping as well as to describe the specific conditions under which certain culturally-related behaviors are manifest among certain minority clients.

Along these lines, from prior epidemiologic research, a *Cultural Protectiveness Hypothesis* has emerged which argues that certain ethnic cultural traits, such as low levels of acculturation among recent immigrants, and a closeness to the Latino culture of origin somehow offer protection from disease or mental disorder (Alderete, Vega, Kolody, & Aguilar-Gaxiola, 2000). Further research is needed that examines the specific conditions and the social and biological processes under which such cultural traits may operate as protective factors. Such research can then inform the design of more effective and culturally-relevant health services for prevention and treatment (Castro, Cota, & Vega, 1999).

ROLE OF RACIAL/ETHNIC IDENTITY IN SUBSTANCE ABUSE PREVENTION AND TREATMENT

RACIAL/ETHNIC IDENTITY IN ETIOLOGY AND PREVENTION

Two related questions that lie at the core of minority substance abuse prevention are: (1) "How does the experience of being a racial/ethnic minority person influence the etiology and onset of substance abuse and dependence?" And, given this, (2) "How is this ethnic experience related to specific health service needs?" As noted previously, research-based answers to these questions should guide the design and implementation of culturally-relevant prevention and treatment programs.

A few recent research studies have examined the potential role of racial/ethnic identity in the development of drug abuse and its progression to drug dependence. In their Orthogonal Cultural Identification Theory, Oetting and Beauvais (1991) indicated that a youth's level of identification with their own cultural background, and with the mainstream culture constitute important and perhaps distinct developmental processes. Oetting and Beauvais hypothesized that a balanced and

strong identification with both cultures produces a bilingual/bicultural identity that is associated with resiliency in youth development. Such resiliency is consistent with the capacity to avoid the use of illicit drugs. However, recent studies have suggested that a minority youth's identification with their own ethnic culture is not in itself protective, but can be protective in association with another factor (Morgan-Lopez, Castro, Chassin, & MacKinnon, 2001; Oetting, Donnermeyer, Trimble, & Beauvais, 1998). Thus, it appears that ethnic identity more likely operates as a moderator or as a mediator or as a co-factor in protection from drug abuse (Brook et al., 1998). More detailed analyses of this process may clarify the manner in which certain cognitive aspects of ethnic identity, such as a positive self-concept, and affective aspects of ethnic identity, such as ethnic pride, may contribute to the process of protection against drug and alcohol abuse.

RACIAL/ETHNIC IDENTITY AND TREATMENT

If certain aspects of racial/ethnic identity operate as risk or protective factors for substance abuse, a related question is, "How should drug treatment programs be organized and implemented so that such treatments can capture and utilize the protective aspects of racial/ethnic identity, as for example, any protective effects conferred by enhanced ethnic pride?" A related research question is whether any of these cultural factors will offer significant treatment gains above and beyond the effects of other well known and conventional treatment factors (Castro et al., 1991; Castro & Tafoya-Barraza; Ja & Aoki, 1993), such as the identification of triggers to reduce the risk of relapse, as described within relapse prevention training (Marlatt & Gordon, 1985). During recovery from substance abuse, do certain culture-based family expectations or behaviors facilitate treatment and aid in relapse prevention? Conversely, is it possible that certain cultural variables such as *simpatia*, erode treatment gains by facilitating co-dependence? To date, little culturally-focused case conceptualization and research has been conducted to examine substance abuse treatment outcomes as these may be influenced by cultural variables (Castro, Obert, Rawson, Valdez, & Denne, in press; Castro & Tafoya-Barraza, 1997).

STRATEGIES FOR CULTURALLY-RELEVANT RESEARCH

INCORPORATING CULTURAL FACTORS INTO PREVENTION AND TREATMENT

CULTURALLY RICH RESEARCH

A cultural approach to scientific research in the fields of prevention and treatment should aim to expand the scope of contemporary research while also increasing its breadth and quality. Regarding this point, some bench scientists often conceptualize disease outcomes as the product of two factors: genetics and environment, and the interaction of these two factors. This narrow conceptual model ignores the

contribution of human behavior as a third important determinant of health and disease. Thus, a more complete model involves expanding this narrow approach to incorporate the additional contributions of human behavior to health and disease outcomes.

Similarly, to conduct culturally-rich research we should expand existing models by the addition of cultural variables as these serve to accurately capture "real-world" issues and the core "life themes," that are relevant and influential in the lives of various racial/ethnic minority people (Flores, Castro, & Fernandez-Esquer, 1995). In support of this effort, integrative dual methods research studies are needed that will offer a deeper examination of significant cultural issues. Such research includes the design of studies that have strong ecological validity, based in part on their use of qualitative and quantitative data analytic methods that more completely capture the complex life experiences of ethnicity as these occur within a community context. Such dual-methods research (Creswell, 1994; Marshall & Rossman, 1995) examine text narratives to distill inductively-generated thematic content and generate thematic categories that capture the salient and important features of a racial/ethnic minority person's daily life. Within an integrative "dual-methods" approach, integrating culture into science involves the expansion of existing theories and models to include relevant cultural variables. Conversely, the integration of science into culture involves the operationalization and measurement of these cultural variables, and their use in models that test their influence on various health-related outcomes including substance abuse. Clearly, accurately conceptualizing these cultural variables, and operationalizing them via the development of reliable and valid measures serve as important steps in the scientific study of these cultural variables and their role in drug abuse prevention and treatment.

Cultural Variables and Social Context

Cultural variables, particularly traditional cultural norms may well provide the setting conditions to examine significant contrasts and interactions that capture the complexities of health-related behaviors that occur among various racial/ethnic minority people (Contreras, Lopez, Rivera-Mosquera, Raymond-Smith, & Rothstein, 1999). Here, context refers to conditional effects, those which are dependent on differing levels of a certain cultural variable which operates as an "effect modifier" (Kleinbaum, Kupper, & Morgenstern, 1982). In other words, an interaction effect produces a health outcome based on the joint effects of two cultural variables. For example, the effect of one cultural variable (e.g., ethnic pride) on a health outcome (e.g., alcohol use) may be influenced differentially by each of two levels (low, high) of a second cultural variable (e.g., traditional family norms). Here, traditional family norms (low versus high) could present different setting

conditions that give youth different levels of "permission," to use alcohol or other drugs. For example, among Asian American or among other racial/ethnic minority adolescents, a traditional (conservative) family system may discourage alcohol use among its youth, whereas a modernistic (liberal) family system might give the message that, "a little alcohol use is alright."

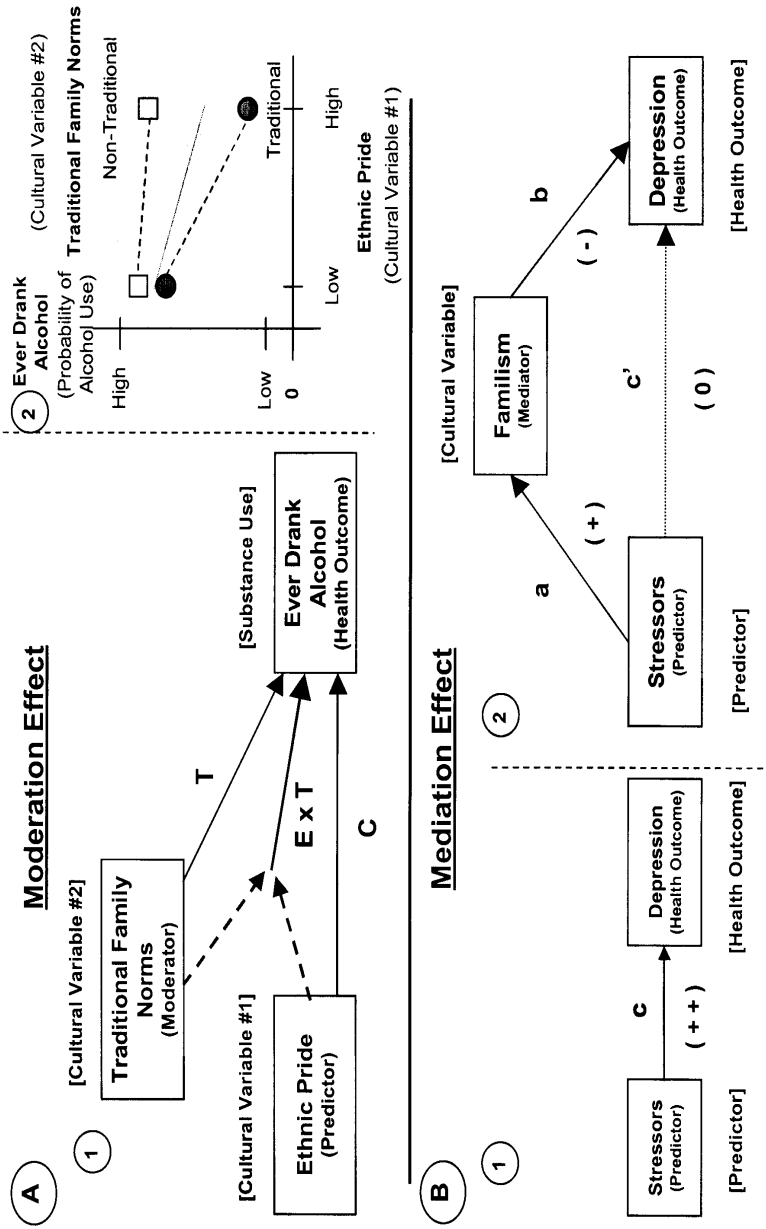
MODERATOR EFFECT OF A CULTURAL VARIABLE

Several of the aforementioned cultural variables (see Table 1) may be examined within expanded research models for their potential roles as moderators and/or as mediators of substance abuse outcomes (see Figure 1). The effects of moderation and mediation are illustrated in the following simplified models of specific cultural effects. A moderator variable acts like a switch or rheostat. It influences the relationship across time between variable A (the predictor) and variable B (the health outcome) by increasing (augmenting) or decreasing (diminishing) the effect of variable A on B, that is, by modifying the effect of the predictor variable on the outcome variable.

As one example, among adolescents, one can ask, "Does the presence of traditional family norms (the moderator) affect (moderate) the influence of ethnic pride (the predictor) on the likelihood of adolescent alcohol use (the outcome)? As one example, among middle school youth, a significant negative correlation (the unmoderated effect) may be observed between Ethnic Pride and Ever Drank Alcohol- the lifetime prevalence of alcohol use (Castro, de Anda et al., 1999). This negative correlation, as observed among minority youth ages 11 to 14 (grades 6 to 9) indicates that the greater a minority youth's identification with their ethnic culture, the lower the likelihood of their use of alcohol. Thus, if greater ethnic pride is negatively correlated with the likelihood of alcohol use, this suggests that enhancing ethnic pride might operate as a protective factor against alcohol use among middle school ethnic minority youth (see Figure 1, panel A, frame 1). By contrast, "Does the cultural variable of Traditional Family Norms (conservative family rules towards alcohol use) operate as a moderator, that is, as a factor (an effect modifier) that augments or diminishes the effect of Ethnic Pride on youth alcohol use- Ever Drank Alcohol?

In this analysis, the moderator effect of Traditional Family Norms relative to Nontraditional Norms, was hypothesized to augment the protective effects of Ethnic Pride in avoiding alcohol use (see Figure 1, panel A, frame 2). This protective effect would be shown by a lowering of the probability of alcohol use among high pride youth who live within traditional family households (see Figure 1, panel A, frame 2). As illustrated, whereas Nontraditional Family Norms (a permissive family environment) is hypothesized to have no effect on how Ethnic Pride affects alcohol

FIGURE 1
MEDIATION-MODERATION MODELS



use, the presence of Traditional Family Norms (a conservative family environment) is hypothesized to increase (augment) the protective effect of Ethnic Pride on Ever Drank Alcohol (see Figure 1, panel A, frame 2). In testing this model, a significant ExT (Ethnic Pride by Traditional Family Norms) interaction effect (the ExT effect arrow) if significant would indicate a moderation effect of Traditional Family Norms (the moderator variable) in augmenting the effect of Ethnic Pride on Ever Drank Alcohol, the probability of youth alcohol use (Baron & Kenny, 1986).

MEDIATOR EFFECT OF A CULTURAL VARIABLE

A simple conceptualization of the effects of a predicator variable on a health outcome hypothesizes that increasing life stress (frequency of occurrence, or intensity of stressful events) increases the probability or the severity of an unhealthy "health outcome," such as depression (see Figure 1, panel B, frame 1). However, the presence of a cultural variable that operates as a mediator, such as Familism (family cohesion and support) might buffer the otherwise adverse direct effects of Stressors on the development of Depression.

In this illustration, the strong positive correlation (+ +) between Stressors (the predictor variable) and Depression (the health outcome) (Path **c** in Figure 1, panel B, frame 1), is reduced to zero by the intervening effect of the mediator variable, Familism. Here, in a temporal chain of events, an increase in Stressors prompts an increase in familial support (Familism) (Path **a** in Panel B, frame 2). In turn, greater Familism is negatively correlated with Depression (Path **b**). Significant path coefficients for paths **a** and **b**, and the attenuation of path **c**, when tested appropriately, would indicate that the cultural variable of Familism operates as a buffer against stressors, thus reducing the effects of these stressors in the onset of depression (MacKinnon, 1994). Thus, as related to prevention intervention strategies, this modeled outcome suggests that strengthening families, such as by the enhancement of familism, would operate as an intervention strategy to prevent depression, despite an exposure to greater levels of life stressors. As one example, Mexican American and other minority families characterized by family closeness and strong family bonding (high familism) might offer their children a supportive environment that protects them against various adverse disorders such as depression or substance abuse.

EMPIRICAL ILLUSTRATION OF MODERATOR EFFECTS

For a multicultural sample of 1,362 middle school youth as evaluated during a baseline assessment, Table 2 presents results of an analysis on the hypothesized effects of Ethnic Pride on lifetime alcohol use- Ever Drank Alcohol, here as the Pride-Alcohol use relationship is moderated by each of two cultural variables: level

of Acculturation and Traditional Family Norms. These variables were operationalized as shown in Appendix A. Also, prior to the analysis of moderation effects, the predictor and moderator variables were centered to disattenuate them from the distortional effects of multicolinearity, as recommended by Aiken and West (1991).

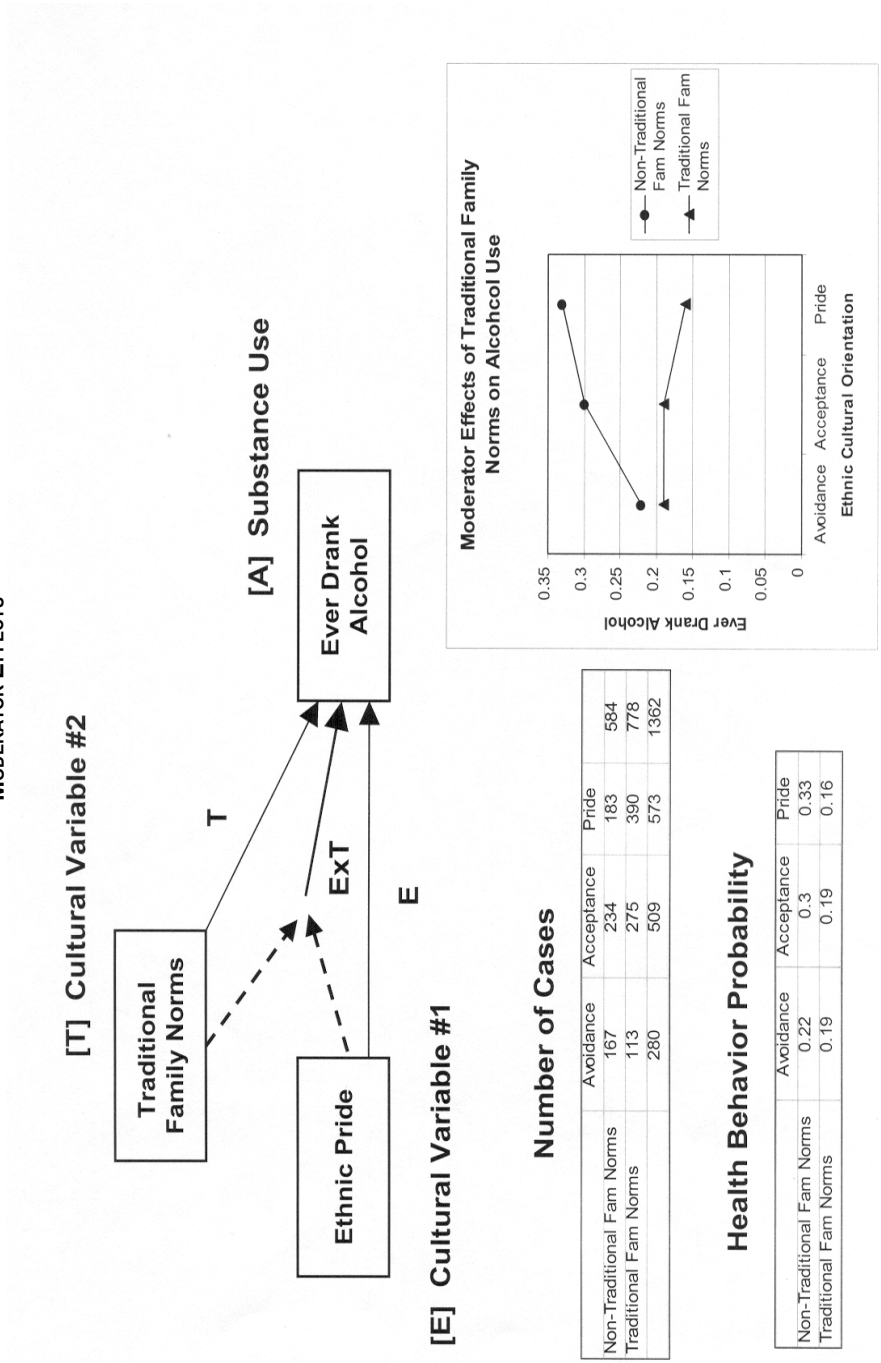
Results of this analysis show a significant effect for one level or subcategory of the Ethnic Pride by Traditional Family Norms interaction. More specifically, a significant effect (Wald= 4.46, $p < .05$; OR= 0.45, CI= 0.22 to 0.95) is observed for the Ethnic Pride by Traditional Family Norms interaction in relation to the baseline reference condition of Avoidance by Non-traditionalism) (see Table 2). Figure 2 presents a simplified version of the total model for this analysis. Figure 2 illustrates the effect of increasing levels of Ethnic Pride: from Avoidance, to Acceptance, to Pride, as these exert differential effects on lifetime alcohol use- Ever Drank Alcohol which are *conditional on the presence of traditionalism within the home environment*. That is, the relationship is influenced by Traditional Family Norms relative to Nontraditional Family Norms within the home environment. Moreover, and unexpectedly, the highest level of Ethnic Pride, was actually associated with the highest probability of lifetime alcohol use- Ever Drank Alcohol, as seen within the condition of Nontraditional Family Norms, that is, *when youth live under a more liberal (permissive) home environment* (see Figure 2). Thus, under these conditions, Ethnic Pride appears to operate as a risk factor for youth alcohol use. However, by contrast, and more importantly, Ethnic Pride is also associated with the lowest probability of lifetime alcohol use-Ever Drank Alcohol, among youth who live under Traditional Family Norms, a conservative home environment. Thus, under that condition, Ethnic Pride operates as a protective factor. These results test the previously described model, and the results underscore the importance of the family context under which a youth is encouraged to develop pride in their ethnic culture and family heritage.

One of our community-based prevention project's aims in preventing the use of tobacco and other substances was to promote ethnic pride, which was hypothesized as a protective factor against tobacco and other substance use, under a working premise that "culture is curative." However, unexpectedly, and as demonstrated within this model testing analysis, promoting ethnic pride may actually increase the risk of alcohol use among a multiethnic group of middle school youth, depending on the presence or absence of traditional family norms within the youth's family environment. In other words, and according to these results, promoting a form of self-concept enhancement, ethnic pride, (a personality variable), can discourage alcohol use, but only within the context of a conservative (traditional) family environment.

TABLE 2
MODERATOR EFFECTS OF CULTURAL VARIABLES

	B	SE	Wald	df	OR	CI
PREDICTOR						
Ethnic Pride	---	---	4.24		1.00	
(0) Avoidance (Reference)	0.42	.412	1.05	1	1.53	0.68, 3.42
(1) Acceptance						
(2) Pride	0.79	.397	3.99*	1	2.21	1.02, 4.82
MODERATORS						
Acculturation						
(0) Lower (Reference)	---	---			1.00	
(1) Higher	0.46	.374	1.54	1	1.59	0.76, 3.31
Traditional Family Norms						
(0) Nontraditional (Reference)	---	---	---		1.00	
(1) Traditional	-0.13	.383	0.11	1	0.74	0.42, 1.87
INTERACTION EFFECTS						
Acculturation by Ethnic Pride						
(0) Low Acculturation by Avoidance (Reference)	---	---	0.65	2	1.00	
(1) High Acculturation by Acceptance	0.02	.432	0.00	1	1.02	0.44, 2.37
(2) High Acculturation by Pride	-0.23	.421	0.29	1	0.59	0.35, 1.82
Acculturation by Traditional Family Norms						
(0) Low Acculturation by Non-Traditional (Reference)	---	---	---		1.00	
(1) High Acculturation by Traditional	-0.79	.296	0.72	1	0.92	0.52, 1.65
Ethnic Pride by Traditional Family Norms						
(0) Avoidance by Nontraditional (Reference)	---	---	---		1.00	
(1) Acceptance by Traditional	-0.36	.373	0.92	1	0.70	0.34, 1.45
(2) Pride by Traditional	-0.79	.374	4.46*	1	0.45	0.22, 0.95

FIGURE 2
MODERATOR EFFECTS



This finding parallels the results of a prior study by Donaldson, Graham, Piccinin, & Hansen (1995), who showed that giving resistance skills training to middle school youth can be protective in delaying alcohol use (no lifetime alcohol use), but only when the prevention education program also provided these youth with normative education about the actual low prevalence of alcohol use that existed within their school. In other words, these youth were informed about the actual low prevalence rates of alcohol use within their school, to counter their original misconceptions that "almost everybody is using." Along these lines, these investigators also cautioned that presenting refusal skills in a true high drug use environment may be counterproductive because in this environment youth will discount the "just say no," message when they observe that most of their peers, "really are using"

Perhaps in parallel, our analysis that encourages ethnic minority youth to relate with ethnic pride to their family and culture might be counter-productive for youth who live within a family system that allows or encourages alcohol and other drug use. The critical issue is that the advantages for prevention in promoting a closeness to family and culture depend on the existing familial or cultural norms as these communicate acceptance or disapproval of substance use on the part of parents or elders. This environmental and interpersonal context suggests that prevention and treatment programs need to work with parents and other family members, in order to provide youth with a consistent message that substance abuse is not acceptable. Moreover, these findings underscore the need to design prevention programs that use multiple and complementary intervention components, e.g., ethnic pride education along with education on traditional family norms, in order to increase the likelihood of success in drug abuse prevention.

MODEL PROGRAMS IN PREVENTION AND TREATMENT

Over the past several years, the Center for Substance Abuse Prevention (CSAP) of the Substance Abuse Mental Health Services Administration (SAMHSA) has identified certain programs having empirical support regarding their efficacy and effectiveness in changing behavior for the purpose of preventing substance abuse. These programs have been widely disseminated throughout the country through a variety of CSAP initiative grants which require that a certain percentage of funds be used to implement these "model programs." While the development of "science-based prevention," and these model programs represents a significant advance over earlier programs which demonstrated limited effectiveness, i.e., DARE, the majority of these model programs have not been tested for effectiveness among multiple racial and ethnic groups.

One example of a "culturally-focused" model program that was specifically developed for minority subjects is Brief Strategic Family Therapy, created by the

Miami Spanish Family Guidance Center for Hispanic families. This model program was designed for Latino/Hispanic adolescents 12 to 17 years of age and their family, wherein the adolescent has been using drugs, or exhibits risk behaviors for drug abuse (Szapocznik & Kurtines, 1989). This multi-component intervention uses process-oriented family groups that aim to modify family interactions so that negative family dynamics are replaced by positive interactions (Szapocznik et al., 1989). Evaluations of this approach show that it can reduce adolescent behavior problems that are precursors to substance abuse (Szapocznik, & Williams, 2000).

Similarly, Preparing for the Drug-Free Years Program (PDFY) is a program delivered by specially-trained community lay workers. This program has been used with multiethnic communities. The Social Development Model (Hawkins, Catalano, & Miller, 1992), guides this program, which has the goal of empowering parents to work with their children to reduce critical risk factors and to enhance protective factors that promote abstinence from substance use, and that promote long-range interpersonal success (Harachi, Hawkins, & Catalano, 1996). The PDFY program aims to increase opportunities for positive social interactions, teaches peer resistance skills to parents and children, promotes the use of consistent family management techniques, while also teaching skills to help manage family conflict.

The Strengthening Families Program (SFP), described by Kumpfer, DeMarsh, and Child (1989) has implemented a family-focused curriculum with high-risk multiethnic families. SFP includes parent skills training, children's skills training, and family skills training to promote family cohesion, improve family communication, and reduce family conflict. The underlying models used by SFP are the Coping Skills Model, the model of Social Ecology of Adolescent Drug Use, and the Resiliency Model. SFP has demonstrated success in decreasing child behavior problems, reducing future intentions and actual use of drugs and alcohol, while also decreasing child aggressive behaviors, and in increasing peer refusal skills.

Approaches to Policy and Application

Given the current early stage of analysis regarding the need to conduct cultural adaptation of substance abuse prevention and treatment programs, the need exists for the development and testing of initial guidelines for cultural adaptation. Such guidelines should be both conceptual and empirically-based, yet at present, they should be provisional and flexible until validated by the accumulation of empirical results on "what works," in program adaptation. Ideally, such guidelines would ultimately be converted into empirically validated and stable "principles of cultural adaptation."

Policy makers have an important role in the development of more culturally-relevant substance abuse prevention and treatment approaches. First and foremost policy makers can and should acknowledge the essential role of culture and cultural variables in the development of substance use and abuse, and should insist that cultural considerations be incorporated into all aspects of their programs and activities.

As a matter of public policy, priority should be given to funding prevention and treatment research that focuses on generating new scientific knowledge about culture as it relates to the complex issues associated with substance abuse. As noted previously, new scientific knowledge is best obtained via the development and testing of *culturally-rich models* as described here, models that examine the effects of cultural variables on specific health outcomes.

Furthermore, given the small number of minority researchers, this means that non-minority researchers must develop cultural competence in research (Castro, 1998), to a level sufficient to conduct culturally-competent research with minority populations. One method of fostering such research would be to promote a collaboration between researchers and community members, the goal of a recently launched National Institute on Drug Abuse (NIDA) initiative. Such joint efforts would serve multiple purposes, including a greater acceptability to minority groups of evidence-based approaches to prevention and treatment than currently exists. Another would be to increase the minority community's knowledge, appreciation, and acceptance of substance abuse theory, research and methodology. And finally, such collaboration could instruct the community on the need for knowledge development and transfer, a process that often poses problems for many minority communities.

Finally, it should be noted that the cultural appropriateness of research designs greatly impacts the current debate regarding issues of intervention fidelity, which must be balanced against need for cultural adaptation of model programs identified by CSAP and other federal entities, in order to make those models relevant for use within a given minority community. Currently, substance abuse providers are being asked or required to select and use model programs that have not been tested with multiple ethnic or racial groups, such as those found within the provider's own community. Not surprisingly, many providers frequently modify these programs to meet the needs of the local community or groups that they serve. While such informal adaptation may "customize" the program for local use, such changes may or may not maintain, and often eliminate the core program components that have yielded effective outcomes when the program was developed and tested for efficacy in drug abuse prevention. It is understandable that providers often feel compelled to make such alterations because they perceive that the current model program is

not culturally-relevant for their community, or because they learn that their community was not included in the original research. As noted, such adaptations generally occur without the benefit of any established guidelines, and without the proper evaluation of the program's true effectiveness in preventing drug abuse. Often, such changes are made without consultation with the originators of the program. Moreover, these informal adaptations are made without the benefits of focus group information or other accepted methods for determining how best to render the models more culturally appropriate for the local community. Accordingly, the fidelity and effectiveness of the original model program are often compromised by these informal and unguided adaptations. While one could take some "principles of prevention" for different cultural groups, such as those recently suggested by Moran (2001) for American Indians, a better approach would be for policy makers to assist minority communities by offering them a large set of culturally appropriate research-based models and providing them with rigorous guidelines for program adaptation.

Similarly, another adaptation strategy is to develop supplementary modules that can be added to extant model programs, modules that offer specific culturally-relevant content for members of a special population. Examples of such modules include modules on effective prevention intervention activities that promote ethnic pride and parental participation for Hispanics/Latinos, African Americans, Asian Americans, and/or for American Indians. Similarly, other such modules could provide specific gender-relevant and age-appropriate activities on drug-resistant strategies that appeal to young girls, that address issues of social alienation among homeless or molested youth, or that offer drug resistance and parenting skills to pregnant adolescents, etc. We hope that this overview of conceptual, methodological, practical, and policy-oriented strategies will aid research investigators and program providers to deliver more culturally-relevant health services to the people that they serve.

APPENDIX A: SCALE ITEMS

PREDICTOR

Ethnic Pride ($\alpha = .70$)

1. How do you feel about your cultural background?
   (1)= I don't think about it/I don't like it; (2)= I think it is ok, (3)=I like it, (4)= I like it a lot!
2. How many of your closest friends are from your cultural (ethnic) group?
   (1)= None of them; (2)= Some of them; (3)= Most of them; (4)= All of them
3. Would you like to learn more about the history and customs of your

cultural (ethnic) group?
(1)= No, I don't want to learn more; (2)=I'm not sure if I want to learn more (3)= Yes, I want to learn a little; (4)= Yes, I want to learn a lot!

4. About belonging to a cultural (ethnic) group, how do you feel?
(1)= I don't think about it, Not proud- I hate it; (2)= A little proud, It's OK; (3)= Proud- I like it; (4)= Very proud- I really like it!

MODERATORS

Level of Acculturation (α = .88) (Scale dimension for all items: (1)= Only English, (2)= English more than Spanish, (3)= Spanish (or another language) more than English, (4)= Only Spanish (or another language).

1. At home, I speak
2. At school, I speak
3. With my friends, I speak

Traditional Family Norms (α = .62) (Scale dimension, for all items: (1)= No, (2)= Maybe, (3)= Yes)

1. Traditions (the "old ways" of culture) are good, and should be kept.
2 My parents are very traditional (believe in the "old ways").
3. My parents care a lot about what I do.
4. When I make a decision, I usually do what my parents have taught me.
5. Traditions are good because they help keep families close together.

OUTCOME

Ever Drank Alcohol (Scale recoded as: (0)= No, and (1,2,3,4) = Yes)

1. During your whole life, how much have you drunk alcohol? If you have never had alcohol, please mark the box labeled "0."
   0. I have never tasted alcohol
   1. I have only tasted alcohol
   2. I have only had 1 to 6 drinks
   3. I have had 7 to 20 drinks
   4. I have had more than 20 drinks

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