

Effects of Parental Monitoring, Permissiveness, and Injunctive Norms on Substance Use Among Mexican and Mexican American Adolescents

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ABSTRACT

The prevention literature has given little attention to how parental influences affect substance use among Mexican origin adolescents, even though they form part of the largest ethnic minority group in the United States. This study explored the effects of three types of parental influences—parental monitoring of the child’s whereabouts, degree of parental permissiveness, and the strength of parental injunctive norms discouraging substance use—on alcohol, cigarette, and marijuana use and anti-drug norms. Results showed that parental permissiveness and parental injunctive norms, particularly anti-drug injunctive norms, had the strongest effects on the substance use outcomes, but parental monitoring generally was not a significant predictor. These results and implications for prevention are discussed in light of Mexican cultural norms toward substance use, gender roles, and family roles.

Latinos, specifically Mexican Americans, represent a large and rapidly growing segment of the U.S. population. Latinos account for 12.5 percent of the total population, and nearly three fifths of them identify themselves as Mexican or Mexican American (U.S. Census Bureau, 2000). In the southwestern states bordering Mexico, people of Mexican descent represent one quarter to two fifths of the residents (U.S. Census Bureau, 2002) and even larger percentages of the enrolled students in large urban school districts. Despite their growing presence in our schools, many issues relating to risk and protective factors for substance use have not been explored for Mexican origin

adolescents specifically. National studies show that among early adolescents (eighth graders), Latinos have reported higher rates of alcohol and illicit drug use than Whites and African Americans for over a decade (Johnston, O’Malley, Bachman, & Schulenberg, 2005). Mexican heritage adolescents also report more substance offers than do non-Hispanic Whites (Hecht, Trost, Bator, & MacKinnon, 1997; Marsiglia, Kulis & Hecht, 2001; Moon, Hecht, Jackson, & Spellers, 1999). The use of substances during adolescence is of concern because it is a risk factor for a variety of developmental, legal, and health risks (Ellickson, Tucker, & Klein, 2003; Miller, Alberts, Hecht, Trost, & Krizek, 2000).

Researchers have correlated a number of ecological factors with substance use among adolescents, including parental relationships with their children (Ary, Duncan, Duncan, & Hops, 1999; Flannery, Williams, & Vazsonyi, 1999; Marsiglia & Waller, 2002; Mounts, 2001; Mott, Crowe, Richardson, & Flay, 1999). Still, the literature has seldom focused on the experiences of Mexicans and Mexican Americans. The intent of this study is to advance our understanding of how different facets of parental influence on adolescents—specifically, monitoring of children’s whereabouts, parental permissiveness, and parents’ injunctive norms—relate to substance use behaviors and norms of Mexican and Mexican American adolescents, using ecological risk and resiliency theory as an interpretive framework. Giving consideration to traditional Mexican and Mexican American gender roles, we expected to find more substance use among adolescents who are exposed to higher levels of parental permissiveness, weaker parental injunctive norms against substance use, and lower levels of parental monitoring. However, we expected that the effects of parental permissiveness and monitoring, but not parental injunctive norms, would be greater among girls than boys. These expectations are derived in the following discussions through an understanding of the role of *familismo*, *respeto*, *machismo*, and *marianismo* in Mexican culture. Rather than relying on stereotypes of a homogeneous Latino culture, this study aims to elucidate the specific experiences of Mexican and Mexican American adolescents and provide insight into culturally grounded interventions that may promote the resilience of these groups.

Parental Monitoring, Permissiveness, Injunctive Norms, and Gender

Parents who are concerned about preventing their adolescent children from engaging in substance use may look to a variety of personal and community resources for information. The media, through public service announcements, instructs parents to “Ask who, ask where, ask when,” proposing a knowledge-based approach to parental monitoring. Monitoring may be defined as the extent to which parents watch, supervise, and stay aware of their children’s activities (Bahr, Maughan, Marcos, & Li, 1998). Adolescents whose parents provide less parental monitoring have been found to engage in higher rates of substance use and other antisocial behaviors (Ary et al., 1999; Flannery et al., 1999; Marsiglia & Waller, 2002; Mounts, 2001; Mott et al., 1999). One may argue that there are several different types of control parents have over their children, including not only identifying the child’s whereabouts, but also following up to ensure that the child is where the child has claimed to be, knowing the child’s friends and their parents, and connecting monitoring to injunctive norms and to a degree of permissiveness through the establishment of expectations for behavior and consequences for inappropriate behavior.

Parental permissiveness refers to the degree to which parents have requirements for their children’s behavior (Lamborn, Mounts, Steinberg, & Dornbusch, 1991). Highly permissive parenting styles have been associated with children’s poor academic performance, involvement in delinquency (Shumow, Vandell, & Posner, 1998), and drug use (Brook, Cohen, Whiteman, & Gordon, 1992). Substance-using adolescents are more likely to have parents who exercise low monitoring and high permissiveness (Barnes, Reifman, Farrell, & Dintcheff, 2000; Komro & Toomey, 2002).

Parental injunctive norms refer to the adolescents’ perceptions of their parents’ expectations for their behavior, including the parents’ expected reaction to the adolescents’ use of substances (Li, Stanton, & Feigelman, 2000). Research on adolescent risk behaviors has found that perceptions play an important role in behavior, including substance use (Li et al., 2000). Although parental monitoring and injunctive norms are separate constructs, perception is a powerful aspect of injunctive norms, and its importance is demonstrated through the finding that adolescents who perceive less parental monitoring are consistently more likely to engage in the use of marijuana and alcohol (DiClemente, Wingood, Crosby, Sionean, Cobb, Harrington, Davies, Hook, & Oh, 2001).

Aspects of parental influences may differ across ethnic groups because they are shaped by culture-specific norms and by ecological factors such as acculturation, which is of particular relevance in the Southwest, a region experiencing a high rate of immigration. In Mexican and Mexican American families, researchers have identified the strength of the family as a core cultural feature and as a primary protective factor against youth substance use (Holleran & Waller, 2003; Hovey, 2000; Marsiglia & Waller, 2002). The value of family-centeredness, called *familismo*, involves the provision of advice, counseling, support, behavior modeling, and close monitoring of children’s activities and relationships. *Familismo* is thought to buffer the effects of acculturation stress experienced by adolescents (Balls Organista, Organista, & Kurasaki, 2003; Marsiglia & Waller, 2002).

Traditional Mexican families may raise their children to adopt gender-specific values such as *machismo* and *marianismo*. *Machismo* can be conceptualized within two seemingly conflicting dimensions that apply to males: one dimension emphasizes aggressive, controlling behavior and patriarchal dominance, the second dimension focuses on positive characteristics such as honor, respect for self and others (*respeto*), commitment, and responsibility (Kulis, Marsiglia, & Hurdle, 2003). *Machismo* grants greater independence and social freedom to boys as compared to girls while instilling, at the same time, a sense of responsibility and accountability even in the absence of strict monitoring. The cultural construct of *marianismo* could be considered to complement *machismo* through its conceptualization

of girls and women as possessing humility, nurturance, devotion to family, and spiritual superiority. *Marianismo* attributes great personal strength to women even while it restricts the social experiences of girls and emphasizes a collectivist approach and obligation to family (Kulis et al., 2003).

Research that has focused on Mexican and Mexican American gender roles suggests that adherence to traditional gender roles may protect adolescents from substance use risk (Marsiglia & Holleran, 1999; Moon et al., 1999). Girls raised under a *marianista* culture often experience a greater degree of parental monitoring and a lower degree of permissiveness. Giving consideration to traditional Mexican and Mexican American gender roles, we would expect to find a stronger relationship between parental influences and substance use by girls, with high permissiveness associated with greater substance use and more positive substance norms. The fact that traditional Mexican males enjoy a greater degree of social freedom than females suggests that parental monitoring and permissiveness may be less crucial determinants of boys' exposure to substance use offers. In fact, particularly for more acculturated Mexican American boys, there is freedom to operate within a masculine culture of risk-taking that may increase their likelihood of engaging in substance use (Kulis et al., 2003). At the same time, however, for Mexican and Mexican American males who ascribe to the positive values of *machismo*, parents' anti-drug injunctive norms could promote resilience to drug use by encouraging males to embody principles of dignity, honor, and respect and to fulfill their responsibility to family.

Risk and Resiliency

This study is conducted from a risk and resiliency perspective, utilizing an ecological framework. Ecological risk and resiliency theory examines the interactive effects of risk and protective factors on the individual within both relational and social contexts (Bogenschneider, 1996; Fraser & Galinsky, 1997; Marsiglia & Waller, 2002). Like other theories that take family, peer, and community influences into account to examine substance use among adolescents, including the eco-developmental (Szapocznik & Williams, 2000) and social development models (Hawkins, Catalano, & Miller, 1992), ecological risk and resiliency theory recognizes the complex mingling of influences at different levels of social organization that shape youth behaviors. By specifically noting cultural influences on behavior, both positive and negative, the theory is particularly useful for understanding the experiences of Mexican and Mexican American youth as they navigate within an environment in which they form a numerically substantial yet non-dominant group. Through this perspective, all of the threads that compose the person's environment become interwoven into the fabric that represents that person's experience.

Although understanding risks inherent to interactions between and within cultural groups is important for drug prevention, understanding protective factors is equally important for identifying strategies to promote resiliency, given that protective factors have been found to moderate against risk, yielding both direct and indirect effects on drug use (Felix-Ortiz & Newcomb, 1999; Marsiglia & Waller, 2002; Moon, Jackson, & Hecht, 2000).

Rather than relying on stereotypes of a homogeneous Latino culture, this study aims to elucidate the specific experiences of Mexican and Mexican American adolescents and provide insight into culturally grounded interventions that may promote the resilience of these groups.

It is important, therefore, to consider the sources of resiliency within the Mexican and Mexican American community. Sources of resilience can be found in Spanish language preference (Marsiglia and Waller, 2002), female adherence to traditional gender roles (Kulis et al., 2003; Marsiglia and Holleran, 1999; Moon et al., 1999), and positive ethnic identity (Gamst, Dana, Der-Karabetian, Aragon, Arellan, & Kramer, 2002; Holleran and Waller, 2003; Marsiglia, Kulis, & Hecht, 2001; Orozco and Lukas, 2000). Additionally, Marsiglia, Miles, Dustman, and Sills (2002) observed the emergence of three resiliency themes, which have been supported in the literature (e.g. Ary et al., 1999; Feiring and Lewis, 1993; Flannery, Williams, & Vazsonyi, 1999; Mott et al., 1999), in their ethnographic study of Mexican and Mexican American adolescents in the Southwest: (a) parental control, (b) parental support, and (c) shared time. This study seeks to expand the current understanding of how parental control promotes resilience to adolescent drug use through an examination of what parenting practices are most closely associated with lower drug use among this population. Understanding these sources could lead to the development and implementation of effective drug-resistance strategies to reduce the risk created by other factors that promote drug use.

Methodology

Data

This study utilizes secondary analysis of data drawn from the pre-test surveys of a randomized trial of a drug-prevention program administered to middle school students from a Southwestern city in the United States (for details, see Hecht, Marsiglia, Elek, Wagstaff, Kulis, & Dustman, 2003). Surveys were administered in classrooms at 35 schools that had previously been assigned through block randomization to experimental and control conditions, accounting for variations in school size and ethnic composition. Institutional review boards at the investigators' university and at each school district reviewed and approved the recruitment and prevention program implementation procedures. The investigators obtained authorization from the school districts, principals, and teachers, and then the parents of participating students were sent a letter explaining the purpose of the study, giving their passive consent.

During survey administration, proctors informed the students about the voluntary nature of the project and guaranteed confidentiality for those who chose to answer the surveys. All students who were present on the day of the surveys chose to participate. The pre-test data were collected in seventh grade classes during fall 1998, before the prevention program was begun. To maximize the number of questionnaire items that could be included in the data collection, a three-form planned missing design was utilized such that there were three versions of the questionnaire, each containing a core of common questions plus supplemental questions. Each of the supplemental questions, which included those related to parental influences, was distributed such that they were split across two of the three questionnaire versions. Therefore, only students responding to one of the versions of the questionnaire—about one third of the total sample—were able to provide complete data for this study. Because the various questionnaire versions were distributed at random within classrooms, *t*-tests indicated there were no significant mean differences in the demographics or drug use profiles of students who completed different versions of the questionnaire.

Because this study seeks to explore in depth the specific experiences of Mexican heritage youth, rather than to compare them to other ethnic groups, this study restricted the analysis to only those respondents who identified themselves as Mexican or Mexican American. Among this group, 729 respondents provided complete information on the parental variables of interest. The sample was nearly gender-balanced (51% male and 49% female).

Measures

The key outcomes examined in this study are Likert-type items that summarize the students' behaviors and attitudes concerning alcohol, tobacco, and marijuana use. Substance use was measured by reported recent use

identified as amount of alcohol, cigarettes, or marijuana used within the past 30 days. These questions were modeled after questions previously used by Flannery, Flannery, Vazsonyi, Torquati, and Fridrich (1994) and were chosen for their developmental appropriateness for the age group under study, and their successful use with a Mexican-heritage youth population (Kulis, Marsiglia, Elek, Dustman, Wagstaff, & Hecht, 2005). The Likert-scale items ranged from 1 = *none* to 9 = *over 30 (alcohol) drinks within the past 30 days*; 1 = *none* to 8 = *more than two packs (of cigarettes) within the past 30 days*; and 1 = *none* to 8 = *more than 40 hits (of marijuana) in the past 30 days*. Because the distribution was skewed toward low drug use, responses were logged to improve model fit in regression analyses. High scores on these measures correspond to higher amounts of substance use. In addition to examining them separately, a composite substance use scale was constructed by taking the mean of the last 30-day alcohol, cigarette, and marijuana measures.

Personal drug norms were measured by three questions about the student's opinions on whether the use of alcohol, tobacco, and marijuana is "okay for someone your age." The scale was scored from 1 = *definitely okay* to 4 = *definitely not okay* with higher values indicating stronger anti-drug norms. When combined into a single additive scale, Cronbach's alpha was .86 for these three items.

Three types of parental variables were measured: monitoring of the child's whereabouts, parental permissiveness, and parental injunctive norms. Monitoring of the child's whereabouts was measured by a single item that captured how often the parents ask where the youth is going upon leaving the house. Answers ranged from 1 = *never* to 5 = *most of the time*. A higher score indicated a higher level of monitoring. Parental permissiveness was measured by three variables that asked students to indicate the degree of their parents' permissiveness. Responses ranged from 1 to 4, with high values indicating a higher degree of permissiveness. First, students identified how often their parents let them go places or do things with others of their own age. Second, respondents identified how often their parents allow them to drink alcohol at parties. Third, respondents identified how often their parents allow them to go out whenever they want.

Parental injunctive norms were measured by three questions asking the adolescents' perceptions of how angry their parents would be if the youth used alcohol, cigarettes, and marijuana. Responses ranged from 1 = *not at all angry* to 4 = *very angry*, with higher values suggesting stronger anti-drug norms. These variables were combined in a single additive scale with a Cronbach's alpha of .72.

Linguistic acculturation, a powerful predictor of drug use (Epstein, Botvin & Diaz, 2000, 2001; Marsiglia & Waller, 2002; Marsiglia, Kulis, Wagstaff, Elek, & Dran, 2005), was measured by students' reported use of English and Spanish. Students were asked what language they usually use when

speaking with their family, and when speaking with their friends. These two items were averaged. Answers ranged from 1 = *Spanish only* to 5 = *English only*. The Cronbach's alpha for these two items revealed a reliability of .76. Students who spoke Spanish with their friends and family all or most of the time were considered less linguistically acculturated than the group that spoke English most or all of the time.

Age was calculated in years based on date of birth, while each student identified their gender as male or female. Student participation in the federal lunch program acted as a measure of socioeconomic status, with receipt of a reduced-cost or free lunch indicating lower status. School achievement was measured by the student's report of their usual grades. Responses ranged from 1 to 9 with higher values indicative of better grades.

Analysis Strategy

This study examines the extent to which three forms of parental influences—monitoring of a child's whereabouts, parental permissiveness, and parental injunctive norms—may affect drug use in a group of Mexican and Mexican American girls and boys, and whether the effects differ according to the youth's gender. Initial tests explored bivariate correlations between the dependent variables, parental influence variables, and control variables. Relationships were further explored through ordinary least squares (OLS) multiple regression, showing the influence of parental factors after controlling for age, socioeconomic status (SES), academic performance, and acculturation. Models were estimated separately by gender to examine how the parents may influence substance use, norms, and expectations in different ways or to different degrees for female and male adolescents of Mexican background.

Results

Table 1 presents descriptive statistics and correlations for selected dependent and independent variables. The students were age-typical for seventh grade, falling primarily between ages 12 and 13 (86%), and were mostly from lower income families as indicated by their receipt of either a free (84%) or reduced-cost school lunch (7%). Although use of alcohol was more common than use of cigarettes or marijuana, large majorities of the students did not use any of these substances. The proportion of students reporting use in the last 30 days was 23% for alcohol, 12% for cigarettes, and 14% for marijuana. Similarly small minorities of students approved of substance use as being *definitely okay* or *okay* for someone their age: 16% for alcohol, 12% for cigarettes, and 14% for marijuana. Higher levels of acculturation, which indicated greater use of English rather than Spanish, were correlated with more recent substance use and weaker anti-drug personal norms. Older students and students with lower grades also reported weaker anti-drug norms and higher amounts of recent substance use. Students reported less drug use and stronger anti-drug norms if they had high levels of parental monitoring of their whereabouts or stronger anti-drug parental injunctive norms (i.e., they thought their parents would get angry if they found out their children used alcohol, cigarettes, or marijuana). In contrast, students with lower scores on two of the parental permissiveness measures reported greater amounts of recent drug use and weaker anti-drug norms. Tests for differences in means and chi-square tests from cross-tabulations (not presented) showed that boys were more likely than girls to use cigarettes and marijuana—and they used higher amounts—but there were no gender differences in alcohol use. Boys were also less likely than girls to disapprove of use of all three substances.

TABLE 1. Descriptive Statistics

VARIABLE	N	MEAN	SD	CORRELATION WITH	
				RECENT DRUG USE ¹	ANTI-DRUG NORMS
Anti-drug norms	729	3.190	.879	-.536**	
Recent alcohol use	727	.452	.681	.842**	-.436**
Recent cigarette use	729	.164	.447	.745**	-.387**
Recent marijuana use	727	.257	.600	.843**	-.480**
Age	702	12.540	.656	.137**	-.102**
Usual grades	724	6.470	1.900	-.219**	.163**
SES: 0=Neither 1=Free or reduced lunch	721	.908	.288	-.114**	.039
Linguistic acculturation	726	1.980	.610	.111**	-.098**
Monitor child's whereabouts	729	4.330	1.120	-.158**	.180**
Permissiveness					
Allow to do things/go out	729	2.880	1.300	.048	-.010
Allow to drink alcohol at parties	729	1.370	.701	.348**	-.320**
Allow out whenever	729	3.030	1.300	.181**	-.198**
Parental injunctive norms	729	3.480	.832	-.413**	.389**

¹Composite measure (mean) of recent alcohol, cigarette, and marijuana use.

* $p < 0.05$ level, ** $p < 0.01$ level.

Multiple regression models predicted for each gender separately the amount of recent drug use (see Table 2) and anti-drug norms (see Table 3), controlling for age, gender, usual grades, socioeconomic status, and linguistic acculturation. Two of the three permissiveness measures were significant predictors of recent substance use, but more consistently so for girls than for boys. For boys, only one kind of permissiveness was associated with greater substance use: how often parents allow the youth to drink alcohol at parties. For girls too, this same kind of permissiveness was associated with greater alcohol, cigarette, and marijuana use. In addition, for girls alone, how often parents allowed their children to go out whenever they want was a significant predictor of greater use of all three substances.

Another parental factor, strong anti-drug parental injunctive norms, was negatively associated with the amount of use for all three substances for boys, and for all but cigarette use among girls. In contrast, controlling for other parental and demographic variables, monitoring of children's whereabouts was unrelated to substance use for boys and for girls. Turning to control variables, boys at older ages reported significantly more alcohol and marijuana use, but age was unrelated to girls' use of any substance. Students with higher grades generally reported less use of substances, with the exception of girls' reports of cigarette use. Lower socioeconomic status was negatively associated with cigarette and marijuana use among boys but not among girls. In contrast, higher linguistic acculturation was positively associated with cigarette and marijuana use among girls but not among boys.

As shown in Table 3, among boys, none of the parent permissiveness measures related significantly to substance-

specific anti-drug norms. Two of the three permissiveness measures predicted girls' espousal of anti-drug norms. The greater frequency with which parents allowed their children to drink at parties, the weaker were the anti-drug norms espoused by girls, and this result held for all three substances. The greater frequency with which parents allowed their daughters to go out whenever they wanted, the weaker were the anti-drug norms, specific to cigarettes and marijuana, espoused by girls. The lone effect of monitoring the child's whereabouts was its positive association with cigarette-specific anti-drug norms for girls alone. As in the case of substance use outcomes in Table 2, parental injunctive norms were a significant predictor of the youth's anti-drug norms for both boys and girls and for all three substances. Stronger parental injunctive norms were associated consistently with stronger anti-drug norms.

Age and socioeconomic status were not significantly related to the youths' anti-drug norms. Adolescents of both genders with higher grades reported stronger cigarette- and marijuana-specific anti-drug norms. Linguistic acculturation did not significantly predict anti-drug norms for boys. For girls, however, higher acculturation was associated with weaker anti-drug norms, regardless of substance.

Discussion

The results of this study suggest that parental permissiveness and parental injunctive norms are stronger factors in Mexican and Mexican American adolescent substance use than parents' monitoring of children's whereabouts. This finding may be explained by circumstances specific to the

TABLE 2. Predictors of Recent Alcohol, Cigarette, and Marijuana Use by Gender

VARIABLE	ALCOHOL		CIGARETTES		MARIJUANA	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
Age	.130* (.056)	-.024 (.047)	.050 (.041)	-.048 (.029)	.135** (.052)	.060 (.038)
Usual grades	-.039* (.019)	-.032 (.018)	-.032* (.014)	-.031** (.011)	-.046** (.018)	-.040** (.014)
SES: Free or reduced lunch	-.168 (.108)	-.138 (.132)	-.191** (.079)	-.038 (.080)	-.304** (.099)	.130 (.107)
Linguistic acculturation	.038 (.059)	.083 (.052)	-.030 (.044)	.064* (.032)	-.022 (.055)	.141*** (.042)
Monitor child's whereabouts	.016 (.030)	.004 (.035)	-.023 (.022)	-.015 (.021)	-.005 (.028)	.001 (.029)
Permissiveness						
Allow to do things/go out	.022 (.027)	-.016 (.024)	.003 (.020)	-.005 (.015)	.023 (.025)	.019 (.020)
Allow to drink at parties	.178*** (.050)	.344*** (.059)	.088** (.037)	.090** (.036)	.095* (.047)	.117** (.048)
Allow out whenever	-.008 (.026)	.090*** (.026)	.018 (.019)	.052*** (.015)	.015 (.024)	.062** (.021)
Parental injunctive norms	-.193*** (.045)	-.125** (.049)	-.123*** (.033)	-.046 (.030)	-.183*** (.042)	-.215*** (.040)
R ²	.212		.223		.175	
N	330	353	331	354	330	353

Note. Unstandardized regression estimates with standard errors in parentheses.

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

Mexican and Mexican American experience. One issue of concern for many Mexican and Mexican American families is the acculturation gap experienced by parents and children who speak English in different degrees. Because less acculturated parents often do not speak English as well as their children, their ability to monitor their children may be undermined by their inability to communicate with their children's English-speaking parents and friends (Gil & Vega, 1994; Weisskirch & Alva, 2002). Therefore, the parents must depend on their children to be honest with them when providing information. If children do not provide accurate information about their activities, it may be difficult for parents to follow up.

Additionally, Mexican and Mexican American families who maintain traditional values may instill in their children the values of *familismo*, *machismo*, and *marianismo*. These values place greater emphasis on expectations for children's behavior, perhaps accounting for the consistent findings here that parental injunctive norms were associated with less adolescent substance use. *Familismo* provides advice, counseling, support, and modeling of behavior, in addition to protective monitoring of children's activities and relationships, and is thought to buffer the effects of acculturation stress experienced by adolescents (Balls Organista et al., 2003; Marsiglia & Waller, 2002).

Machismo, associated with such characteristics as commitment, dignity, honor, and respect for self and others, can be undermined by the acculturation experience as individuals struggle with the dominant society's tendency to denigrate the status of Mexican and Mexican American

men in the United States (Hondagneu-Sotelo, 1994). Similarly, the traditional female quality of *marianismo*, which emphasizes women's spiritual grace and connection to the Virgin Mary through acts of submission and self-denial for the sake of the family (Gil & Vasquez, 1996; Hondagneu-Sotelo, 1994; Marsiglia & Holleran, 1999), could protect Mexican and Mexican American girls through expectations that girls will keep close to home with their social interactions closely supervised (Marsiglia & Holleran, 1999; Moon et al., 1999).

These cultural values might also explain some of the variance by gender in the effects of permissiveness and monitoring of whereabouts for anti-drug norms. Boys who are raised with the value of *machismo* may be accustomed to having greater freedom in their social experiences, learning to interact with others in the absence of strict parental monitoring or limited permissiveness. Such boys may carry with them the expectation that they are accountable to their families as they behave in a manner that either honors or shames their families. Thus, parental injunctive norms may become more important than direct parental monitoring in helping boys to determine whether it is acceptable for them to use substances. The instances where parental permissiveness was influential in boys' substance use—when their parents allowed them to drink at parties—may reflect traditional Mexican norms that are much more accepting of alcohol and substance use by men than by women.

For Mexican heritage girls, the opposite may be true. Those girls raised in a culture of *marianismo* are taught that they have obligations to their home and family, and

TABLE 3. Predictors of Anti-drug Use Norms by Substance and Gender

VARIABLE	ALCOHOL		CIGARETTES		MARIJUANA	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
Age	.054 (.079)	-.061 (.056)	.044 (.072)	.014 (.055)	-.136 (.072)	-.090 (.062)
Usual grades	.023 (.027)	.013	.052* (.021)	.024 (.024)	.045* (.021)	.069**
SES: Free or reduced lunch	.042 (.150)	-.157 (.157)	.154 (.138)	-.282 (.153)	.258 (.138)	-.192 (.174)
Linguistic acculturation	.034 (.083)	-.169** (.062)	.016 (.077)	-.144** (.061)	-.011 (.077)	-.162* (.069)
Monitor child's whereabouts	.032 (.042)	.058 (.042)	.058 (.039)	.083* (.041)	.040 (.039)	.007 (.047)
Permissiveness						
Allow to do things/go out	.032 (.038)	-.005 (.029)	.032 (.035)	.001 (.028)	.033 (.035)	-.055 (.032)
Allow to drink at parties	-.124 (.071)	-.363*** (.071)	-.062 (.065)	-.240*** (.069)	-.093 (.064)	-.256*** (.079)
Allow out whenever	-.058 (.037)	-.089** (.031)	-.034 (.034)	-.093** (.030)	-.022 (.034)	-.093** (.034)
Parental injunctive norms	.225*** (.063)	.188** (.029)	.250*** (.058)	.209*** (.057)	.332*** (.058)	.319*** (.079)
R ²	.104	.234	.141	.215	.236	.232
N	330	352	331	353	329	352

Note. Unstandardized regression estimates with standard errors in parentheses.

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

these obligations often serve to restrict their social encounters. In this climate, then, it would be expected that girls would experience a greater degree of effective parental control and low permissiveness as their social interactions are more limited to family and close friends, with emphasis placed on girls' fulfillment of duties within the home. Similarly, the culture of *marianismo* associates girls with the Virgin Mary, suggesting that girls' behavior should model the piety and moral rectitude of the mother of God. Such expectations for girls may be reflected in the importance of parental injunctive norms as a factor in adolescent substance use behaviors and norms.

Beyond these possible cultural interactions is the underlying issue that it appears to be more relevant to Mexican and Mexican American adolescents for parents to exercise active parental influences or techniques, such as offering their children guidance through low permissiveness and providing expectations that there will be consequences for their behavior in the form of injunctive norms. In this study it was not the actual monitoring or degree of permissiveness, but the anticipated parental response that appeared to deter children most effectively from substance use or from adopting pro-drug norms. This finding suggests that Mexican and Mexican American families should be encouraged to parent their children through establishing limits and expectations for their behaviors rather than relying solely on their children to inform them about their activities. If parental monitoring is based on information requested by the parent and provided by the child, the parents are relying upon the child to take responsibility for monitoring by providing accurate information to the parents. It is, therefore, an activity of the child (Stattin & Kerr, 2000). If the parents engage in active monitoring of their children, they may also need to incorporate injunctive norms that discourage drug use and limit their permissiveness.

This finding has implications for program development of culturally grounded prevention and intervention techniques when working with Mexican and Mexican American families. Placing the findings within the context of ecological risk and resiliency theory, the results suggest that programs that emphasize parental involvement or that utilize the traditional values of *machismo* for boys, *marianismo* for girls, and *familismo* for all youths and families might be most effective in promoting resilience to substance use among Mexicans and Mexican Americans. Rather than promote information-based monitoring, prevention techniques should involve the strengths of Mexican and Mexican American family values, encouraging families to establish expectations and consequences for their children's behaviors, as well as encouraging parents to play an active role in supervising their children's social interactions.

There is a propensity among the dominant White culture to prefer that non-dominant and immigrant cultures acculturate to the dominant culture. However, the findings

of this study underscore the dilemmas that acculturation presents for Mexican and Mexican American adolescents. The Mexican and Mexican American culture provides adolescents with culturally embedded protective factors that may be devalued or lost as adolescents acculturate to the dominant culture. This may be particularly true with gender roles, as the *machismo* role has been historically denigrated and portrayed in caricature form by the White culture, and the *marianismo* role, so protective against substance use for girls, may be perceived as contradicting the feminist culture of the United States.

For practitioners who utilize strengths-based practice, these findings illuminate strengths inherent within the Mexican and Mexican American community through the protective influence of language, parental injunctive norms, and parental control, demonstrated through limited permissiveness. These strengths highlight factors that can be promoted and supported by practitioners working with this population in the Southwest. Similarly, policy makers can attend to findings that elucidate resilience factors and use these to influence their decisions about policy. Language has been a particularly divisive issue throughout the United States, and policies promoting English language use have been widely promoted, yet the findings here suggest that continued use of the Spanish language may be a strong protective factor for Mexican and Mexican American youth. More study of the issue will be needed to clarify how and why Spanish language preference is protective, serving to shape future policy related to language use and biculturalism.

The findings of this study cannot be generalized to all Latino families, although this was not the intention of the study. Rather, the study sought to refine the present knowledge of substance use prevention by exploring the responses of Mexicans and Mexican Americans in the Southwest. Therefore, the results of this study may be generalized to all Mexicans and Mexican Americans and serve to expand the present understanding of culturally-grounded prevention to incorporate into the Mexican and Mexican American culture.

This study builds upon the current prevention literature through examination of substance use among Mexican and Mexican American adolescents in the Southwest. Like other inquiries in this area, the current study was unable to measure "culture" directly, and speculative explanations about the youths' motivations regarding substance use—for example, that girls abstain because of the influence of *marianismo*—need to be explored more deeply through more in-depth qualitative research. Future studies that delve into the experiences of specific cultural groups may elucidate culture-specific strategies that can protect against the risk for substance use and may inform policy and program development relating to prevention. Such study will further the understanding of cultural experience and societal contributions to substance use among adolescents.

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