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Ethnicity and Ethnic Identity as Predictors of Drug Norms and Drug Use Among Preadolescents in the US Southwest

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Abstract

This article reports the results of research exploring how ethnicity and ethnic identity may "protect" adolescents against drug use and help them form antidrug use norms. This study was conducted in 1998 and is based on a sample of 4364 mostly Mexican American seventh graders residing in a large southwestern city of diverse acculturation statuses. It aims at testing existing findings by conducting the research within the unique geographic and ethnic context of the Southwest region of the United States. This research examines how strength of ethnic identity plays a distinctive role in drug use behavior among the various ethnic groups represented in the sample: Mexican Americans, other Latinos, American Indians, African Americans, non-Hispanic Whites, and those of mixed ethnic backgrounds. Positive ethnic identity (i.e., strong ethnic affiliation, attachment, and pride) was associated with less substance use and stronger antidrug norms in the sample overall. Unexpectedly, the apparently protective effects of positive ethnic identity were generally stronger for non-Hispanic White respondents (a numerical minority group in this sample) than for members of ethnic minority groups. Implications for prevention programs tailored for Mexican/Mexican American students are discussed.

Keywords

Mexican American; Ethnic identity; Ethnicity; Drug use; Acculturation; Adolescents; Baffer effect; Ethic labels

INTRODUCTION

The Southwest United States and, more specifically, the borderlands (Anzaldua, 1987) provide a unique cultural and sociopolitical environment in which to study ethnicity and drug etiology. Ethnicity, ethnic identity, acculturation, socioeconomic status (SES), and gender may shape preadolescent norms and drug use in ways that are unique to this part of the country. Searching for these possible unique relationships is the main purpose of this study. These different relationships are considered as we explore possible "protective" effects of ethnicity and ethnic identity in preventing drug use and fostering strong antidrug norms. This approach moves beyond the focus on static "risk" or "protective" factors and

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attends to cultural processes that facilitate positive adaptational outcomes (Bogenschneider, 1996).

Our guiding hypothesis is that ethnicity and ethnic identity are implicated in the drug use norms and behaviors of youth, but in ways that may vary for youth of different ethnic backgrounds in the Southwest. Specifically, this study extends existing research by describing the posited "protective" effects of ethnicity and ethnic identity on youth drug use while testing for geographic and ethnic applicability in the Southwest context. These protective factors are not approached here as fixed attributes of individuals, families, communities, and environments. Rather, they are studied as posited protective processes in order to better capture the complex relational and contextual aspects of resiliency (Marsiglia and Waller, 2002; Rutter, 1984).

This research is necessary due to concerns over the levels of drug use among children and youth throughout the United States. Lifetime self-reported illicit substance use for adolescents in eighth grade rose steadily in the 1990s, from 18.7% in 1991 to a high of 31.2% in 1996, decreasing only slightly to 28.3% in 1999 (Johnston et al., 2000). Efforts have been made to understand these use rates by considering demographic characteristics. We know, for example, that African Americans demonstrate substantially lower rates of use in a number of licit and illicit drugs than Whites, whereas Hispanics[a] exhibit rates of use between that of Whites and African Americans. Notably, among eighth graders, Hispanics have the highest use rates of these three groups (Johnston et al., 2000). Drug abuse differences have also been documented between rural and urban settings with rural communities facing significantly higher use rates (Warner and Leukelfeld, 2001). Some studies have proposed an urban–rural continuum characterized by heterogeneity in both urban and rural settings, making the distinction less clear (Rountree and Clayton, 1999).

Although differential rates of use by ethnicity exist among children and youth, there has been only a spare literature exploring the role of ethnic identity in actual drug use. Ethnicity may also have a posited buffering effect against drug use, but the possible resiliency effect has not been extensively researched (Willis et al., 1992). Failure to identify these proximal factors can reinforce ethnic prejudices and perpetuate racist stereotypes, and does little to help us understand the etiology of drug use.

Recently, a line of research has begun to address these issues (e.g., Hecht et al., 1997; Kulis et al., 2002a, 2002b; Marsiglia et al., 2001; Marsiglia and Waller, 2002; Moon et al., 1999, 2000). This research has described differences in the social processes by which drugs get offered and used or refused (Hecht et al., 1997; Moon et al., 2000). More recently, these studies have begun to specify the role of ethnic identity, showing ethnic minority preadolescents with stronger ethnic pride have been found to report less frequent drug use and drug exposure than those with a weaker sense of pride in their ethnic group (Marsiglia et al., 2001). Still, studies of whether and how ethnicity is implicated in drug use for different ethnic groups are rare, especially those focusing on Latino adolescents in areas of the country such as the Southwest, where they constitute the numerical majority. In addition, research has yet to explore the relationship between ethnicity and other demographic factors, such as gender and socioeconomic status, nor does it examine important moderators of use such as drug norms. Finally, issues remain about the conceptual distinctions of *ethnic labels* (a phrase used to describe ethnic group membership) and *ethnic identity* (degree and type of association with one's ethnic group). This study is designed to extend research into these incipient and not yet fully tested research areas.

[a]The category "Hispanic" is used in the literature to represent an ethnic group when it represents a cultural or language group and not ethnicity.

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ETHNICITY, ETHNIC LABEL, AND ETHNIC IDENTITY

The use of the term *ethnicity* has been quite common in drug use research. According to Beauvais (1998), ethnic and racial designations have been used in three types of drug use research, including (1) prevalence and incidence studies, (2) causal determinants studies, and (3) subjective factors studies. The first type, prevalence and incidence studies, examines rates and patterns of behavior among individual racial and ethnic groups. The second type investigates how determinants of substance abuse, such as peer influence or family structure, are distributed in a racial or ethnic group. The third type attempts to understand how subjective factors associated with the experience of an individual's racial or ethnic designation might influence substance abuse. In addition, studies in this last group research patterns of use and abstinence. For the purposes of this article, racial and ethnic designations as described in prevalence and determinants research are termed *ethnic labels*, whereas the individual's subjective experience associated with the ethnic and racial designation is referred to as *ethnic identity*.

In a sample of early adolescents, ethnic identity was identified as affecting the perceptions of their ability to achieve academically and professionally, in addition to their belief in prosocial values of goal attainment (Smith et al., 1999). Strong ethnic identity has been shown to be protective from negative outcomes for some groups. African Americans with strong ethnic affiliation, for example, were found to be shielded from the harmful effects of perceived discrimination, whereas Whites were not (Wong, 1998).

Primary social groups have been found to have a strong impact on the development of an ethnic identity (Knight et al., 1993). Similarly, the process of acculturation of immigrant groups may be seen as a kind of socialization into the mainstream conceptions of ethnicity and may involve a dimension of orientation toward the homeland, mainstream culture, or biculturalism as elements of ethnic identification (Caetano et al., 1998; Keefe and Padilla, 1987; Ramirez, 1984; Randolph et al., 1998). The ethnic identity resulting out of these complex phenomena may have either a protective or risk effect on drug use and drug norms as the process of knowing who one is takes place in a social context. Prevention efforts can play a role bolstering protective processes and weakening risk processes. Individual characteristics and collective identity factors, particularly peers and family, have long been associated with drug use resistance (Hansen and Graham, 1991). Less in known about ethnic identity and its possible protective effects.

Drug use norms are viewed as an adolescent's perception about the prevalence of drug use among peers and friends (Hansen and Graham, 1991), which have been found to relate to drug use. The Focus Theory of Norms refers to these types of norms as *descriptive norms* (what people do in the same or similar situations) and distinguishes them from *injunctive norms* (what ought to be done) and *personal norms* (how an individual believes that he or she should act (Cialdini et al., 1991).

Ethnic identity was found to mediate effects on descriptive drinking norms and religiosity that, in turn, influenced drinking behavior (Herd and Grube, 1996). A common theme in this kind of research is that more traditional or conservative cultural norms have a buffer or protective effect on Latinos/as and other ethnic minority groups against substance abuse (Marsiglia and Navarro, 1999; Marsiglia and Waller, 2002; Niemann et al., 2000). This process has been identified as a form of resilience and it has been defined as "manifested competence in the context of significant challenges to adaptation or development" (Matsen and Coatsworth, 1998, p. 206). Generalizable findings have identified that certain conditions need to be present for individuals to effectively negotiate risky environments and stressors (Weissberg and Elias, 1993). Research has delved into the intriguing question of how, even

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in the midst of multiple risks, some individuals exhibit remarkable resilience against negative social and health outcomes (Bernard, 1994).

In this study, ethnicity is approached as a choice taken under certain conditions. Understanding that selection involves an individual act, an act of choice and a set of conditions—social, economic, epistemological, developmental, and political—that make only certain options possible (Dominguez, 1986). The age of the subjects (preadolescents) and their borderlands context add complexity to an already dynamic and multidimensional phenomenon. For example, younger subjects have been found to be less clear and sure of their ethnic identity than their older peers (Phinney, 1992) and Mexican/Mexican American adolescents appear to follow unique paths into the development of their ethnic identities, especially in the US–Mexico borderland region (Niemann et al., 1999). Age and ethnicity are recognized as key factors influencing the ethnic identity status of children and adolescents (Branch et al., 2000). Mexican-specific conceptions of ethnic identity in the United States are explored in connection to young people's ethnic identity formation as they navigate through their own acculturation processes. Is it expected that preadolescents in the Southwest constantly negotiate between two different understandings of ethnicity, one from their culture of origin emphasizing ancestry and culture and the mainstream American model that emphasizes phenotypical characteristics.

Acculturation and Language Use

Acculturation needs to be considered not only in relationship to the development of ethnic identification, but also to the prevalence of drug use. Acculturation is the process by which an individual's attitudes and behaviors are modified through exposure to a dominant culture. Acculturation is believed to act upon drug use in two ways. First, the process of adapting to a new environment, the internalization of negative stereotypes, and the loss of traditional support systems can create stress that may manifest in several dysfunctional behaviors, including drug use (Barnes, 1979; Barrett et al., 1991; Bonnheim and Korman, 1985). Second, exposure to the dominant society's drug use behavior may lead to adoption of such behaviors (Gilbert and Cervantes, 1986).

The relationship between acculturation and drug use among ethnic adolescents has been studied with equivocal results. Higher levels of acculturation have been associated with drug use and delinquency among Puerto Rican, Mexican American, and African American youth (Brook et al, 1998; Marsiglia and Waller, 2002), drug use among Hispanic girls at risk for suicide (Fraser et al., 1998), and smoking among male, Puerto Rican high school students (Smith et al., 1991). In separate studies, Brooks et al. (1998) and Barrett et al. (1991) found that acculturation had only a weak and indirect effect on Hispanic youth substance use. Likewise, no relationship was found between acculturation and inhalant use among Hispanic youth (Bonnheim and Korman, 1985; Simpson and Barrett, 1991), general substance use (Barrett et al., 1991), or smoking among Hispanic adolescents.

SES

Correlation between SES and substance abuse among youth has also been ardently debated. A comprehensive review of the literature concluded that only in instances of extreme poverty combined with childhood behavior problems could SES be shown to affect later risk for drug use (Hawkins et al., 1992). This led some to believe that a link does exist and, if it does, it may be indirect (Spooner, 1999). Others continue to argue for a relationship between lower SES to higher rates of smoking and heavy drinking and, in some studies, marijuana use. They classified SES as a distal variable, or one that has a broad and diffuse influence on substance use (Wills et al., 1996). Mothers' occupational status (Springer and Gastfriend,

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1995), educational attainment, total family income, and fathers' occupational prestige were associated with youth substance abuse problems (Gabel et al., 1998).

Research also has investigated the effects of SES on different ethnic groups. Parker et al. (1995) found that employment status, income, and education were significant predictors of alcohol use for Black, Hispanic, and White respondents. Strait (1999), in his review of the literature on substance use and Hispanic youth, also identified a link between low SES and substance use. These findings are contradicted somewhat by Gil, Vega, and Biafora's study (1998) that found that SES predicted drug use initiation for immigrant Hispanic boys only. No relationship was found between initiation of drug use and SES of United States-born Hispanics and United States-born and foreign-born African Americans and Whites.

Academic Achievement

The link between substance use and academic achievement has been well reviewed and documented (Beman, 1995; Gilvarry, 2000; Hawkins et al., 1992; Petraitis et al., 1998; Spooner, 1999). Academic performance has been strongly associated with tobacco, alcohol, and drug use in preadolescents and adolescents (Abdelrahman et al., 1998; Dishion et al., 1999; Neumark-Sztainer et al., 1997; Stevens et al., 1996; Yarnold and Patterson, 1995). Low academic achievement has been found to predict not only school failure, but also higher levels of substance use at the initial measurement, and also to predict how quickly substance use would develop over an 18-month period (Duncan et al., 1998).

The association between drug use and academic performance among Hispanic youth has also been studied. Strait (1999) identified several studies that relate poor grades, low school achievement, and school misconduct to drug use by Hispanic youth. Mexican American students who used marijuana and scored poorly on academic achievement tests were more likely to be absent from school and dissatisfied with school than those students who did not smoke marijuana and performed well on achievement tests (Codina et al., 1998). School factors of attachment, involvement, and achievement were found to predict perceived student use of substances, but did not predict actual use (Brooks et al., 1998). Another study found that academic achievement did not predict inhalant use (Mason and Roehe, 1996).

Gender

In addition to ethnicity, the narrowing gender gap among adolescents in the use of illicit drugs, alcohol, and cigarettes has been noted. Adolescent girls today are equally likely to drink or use illicit drugs as boys are (Reid, 1996). This has not always been the case as demonstrated by the figure that today's girls are 15 times more likely than their mothers to have begun using illicit drugs by age 15 (Reid, 1996). Although differences are observed in lifetime use of illicit drugs, they tend to become more evident in later adolescence (Johnston et al., 2000). It is understood that the increase in female adolescents' use of controlled substances and later gender differences in alcohol, drug, and cigarette use are due to distinct mechanisms that in part are related to ethnicity (Kulis et al., 2002). For this reason, the Substance Abuse and Mental Health Services Administration of the U.S. Department of Health and Human Services in 1996 established the program Girl Power! to specifically target girls 9 to 14 years old, and address the distinct needs of adolescent females in drug prevention and other health-related issues. Findings in this report (1998) tend to support the idea that the social factors that influence early adolescent female drug use are dissimilar from those that influence adolescent males.

In designing this study, consideration was given to the joint impact of ethnicity and ethnic identity in combination with other key factors in the etiology of youth drug use: acculturation, SES, and gender. Particular emphasis was given to the manner that they might

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operate within the Southwest social context of the sample, which is further described in the Methods section.

THEORETICAL APPROACH

The current research uses the Ecological Risk and Resiliency Approach (Bogenschneider, 1996) as its overarching theoretical basis. The approach entails taking into account the relationship between the individual and his or her context, and addressing both the risk and protective factors influencing behavioral outcomes. This approach is grounded in a wide array of multidisciplinary research on the complexities of drug use and prevention. Researchers using this approach argue that greater attention should be paid to basic social conditions. Social factors such as ethnicity and culture are relevant to disease prevention and treatment because they influence access to important resources, including social support, and impact multiple disease outcomes, including drug abuse. Although membership in particular ethnic or geographic communities is not in itself a risk factor, it may influence access to both prevention resources and effective service delivery systems.

Although considerable empirical evidence exists related to risk factors for substance use, much less is known about protective processes (Garmezy, 1994; Werner, 1989; Willis et al., 1992). In particular, there is little empirical research examining how protective factors operate among drug-resisting ethnic minority youth (Rodriguez, 1995). Although certain cultural factors put people at risk for drug abuse, culture also may produce indigenous resiliency. The current challenge in resiliency research is to identify the processes by which anyone might rebound or regenerate from adversity and to identify the environmental conditions that are most conducive to these regenerative processes (Bernard, 1994; Garmezy, 1994). A key aim of this study is to gain a better understanding of the cultural processes that buffer against drug use, and the variations among communities in their competencies to lower the prevalence of drug use. Furthermore, just as communities are not static, the competencies they produce are not static. Therefore, the processes that influence risk and resilience, such as acculturation in an ethnic community, will be at the core of the inquiry.

METHODS

Respondents

This article analyzes self-reports from 4364 seventh-grade students who were enrolled in middle schools in a large urban center in the Southwest in the fall of 1998. School superintendents and later school principals were recruited to partner with the university-based team in conducting a “drug abuse” intervention research study (Harthun et al., 2002). All 45 secular public middle schools within the city were recruited for the study, and 35 schools from nine different school districts agreed to participate. Within these schools, every seventh grader was selected as a participant in the study. The nonparticipating schools had gone through administrative changes since the original commitment to participate was made and the time the award was received (2 years). Although teachers assisted in explaining to the students and their parents that the study aimed at understanding their opinions about drug use among young people, they were not present in the classroom during the survey administration. Survey administrators made it clear (verbally and in writing) that they had the right to participate or not to participate. There were no student refusals to participate. Table 1 provides a demographic profile of the respondents.

Because this article focuses on the role of ethnicity, we excluded respondents whose ethnicity was missing (N=81). We also excluded those who identified solely as Asian

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American (*N*=37) because their numbers were too small to analyze in relation to strength of ethnic identity.

Surveys

University-trained survey proctors administered a 45-minute written questionnaire, available on one form and containing both English and Spanish versions. In all but two schools, the surveys were administered during regular school hours in either a seventh-grade science, health, or home room class, depending on the scheduling and administrative needs of individual schools. In two schools, all seventh graders were assembled together for the survey administration. Prior to the survey administration, letters were sent by school administrators to the parent(s) of every student explaining the nature of the study and requesting their consent to have their child participate in the study and complete the study surveys. These procedures were reviewed and approved by Institutional Review Boards at the investigators' university and at each school district. During the survey administration, students were first informed that this was a voluntary university research project rather than a normal school activity and were guaranteed the confidentiality of all their responses. All students present the day of survey administration agreed to complete the questionnaire, and absent students were not contacted further. To ensure their anonymity, no student names or ID numbers were recorded on the questionnaires, no teachers were present during the survey administration, and members of the study team collected all questionnaires and returned them for coding to the study office. Teachers and school administrators had no access to the original data, but were later presented with reports on aggregated student responses.

Variables

The questionnaire consisted of a core demographic section and a series of Likert-type items measuring students' use of alcohol, tobacco, marijuana, and other drugs, their attitudes toward drug use, and the strength of their ethnic self-identities. There are four items measuring lifetime use of drugs: number of alcohol drinks consumed, cigarettes smoked, and instances of marijuana use, as well as an index of the number of different drugs ever tried. The original Likert scales were transformed by calculating their natural log. Four other items measure recent drug use: amount of alcohol, cigarette, and marijuana use in the last 30 days (log transformed), as well as a combined measure of the number of days these drugs were used in the last month. Question wording for all these items is detailed in Appendix A, which also shows how individual questionnaire items were combined, using mean values, to construct several indexes that measure the students' norms toward drug use.

Antidrug personal norms are measured in three ways: respondents' views on whether use of alcohol, cigarettes, and marijuana is "OK" for someone their age; whether they think it is "OK" for anyone to use "hard drugs" (LSD, crack, cocaine) or inhalants; and their view of the likelihood that they would refuse future offers of alcohol, cigarettes, and marijuana. Antidrug injunctive norms are measured for an important reference groups for these students —their friends. The respondents estimate how unfriendly their best friends would react if the respondent used alcohol, cigarettes, and marijuana. Descriptive drug use norms also are measured through the student's estimate of the proportion of their school peers who have tried drugs and use them regularly.

Respondents' ethnicity is measured through their self-identification with any combination of six ethnic or racial groups: "Mexican American or Chicano/a," "Other Hispanic," "African American," "American Indian," "Asian or Pacific Islander," or "White." After examining the combinations of identities claimed by the respondents, we created a set of dummy variables to contrast the largest ethnic/racial groupings. Fifty-five percent identified themselves solely as Mexican, and an additional 12% claimed both Mexican and one or

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more other ethnic identities. Those identifying solely as White accounted for 16%. There were smaller groups claiming only African American (6%), American Indian (3%), and non-Mexican Latino (3%) backgrounds, as well as a group of non-Mexican respondents who claimed multiple ethnic identities (5%). Although the small number of "Asian/Pacific Islander"-only respondents were excluded from analysis, that identity was claimed by some of the multiethnic respondents who were retained. In regression analyses, the omitted reference category for ethnicity is students identifying as White only.

The two groups of multiethnic self-labels respondents we created— those with and those without a Mexican self-label—tended to report a different pattern of ethnic backgrounds. The multiethnic Mexicans most commonly claimed in addition a White identity (43%), followed by another Latino (36%), American Indian (36%), or African American (16%) identity. The non-Mexican multiethnics typically reported combinations that included either White (73%) or American Indian (64%) identity, followed by African American (48%) and non-Mexican Latino identities (27%). In both groups of multiethnic respondents more than two-thirds claimed exactly two ethnic backgrounds and few reported Asian backgrounds.

Our analysis also models the effect of the strength of the respondents' attachments to their ethnic/racial identity. Using six questionnaire items in a principal components factor analysis, a single factor score emerged that combines different aspects of the strength of one's ethnic identity: a sense that one's behavior and speech are consistent with others from the same ethnic/racial group, positive feelings about one's ethnic/racial group and an intention to claim the same identity if given the choice, and lack of a sense of embarrassment about the speech or behavior of others from the same ethnic/racial group (Table 2). These items are similar to some that have been used in established ethnic identity scales (e.g., Phinney, 1992) to measure aspects of ethnic affiliation and ethnic attachment. The particular items were selected from 20 original items that were employed in a previous study (Marsiglia et al., 2001) that tested the applicability of more commonly used ethnic identity measures to the age group and regional setting of the study population. The employed items bring together what others have referred to as a sense of ethnic "*affiliation*," "*attachment*," and "*pride*."

Several control variables are entered into the multivariate analyses. Gender is coded as a dummy variable with females as the reference group. The student's "usual grades in school," on a Likert scale from 0 (mostly Fs) to 9 (mostly As), are a self-reported global assessment of academic performance. Socioeconomic status is measured with a dummy variable contrasting those who do and do not receive a free or reduced price school lunch. Finally, age is measured in years. Two items indicating the extent to which the student speaks English with (1) family and with (2) friends (exclusively, mostly, half and half, seldom, never) have been combined in an additive index of bicultural experience and acculturation. As might be expected in the Southwest, a substantial minority of the Latinos in the sample are mostly non-English speakers with their families—34% of the Mexican American only respondents, 21% of the multiethnic Mexican American respondents, and 38% of the other Latino respondents, but large majorities of these three groups reported that they spoke a language other than English at home at least part of the time. Somewhat smaller percentages of these respondents reported speaking Spanish with their friends. About one-third of the American Indian-only respondents also reported some non-English language spoken at home, but only 11% said they mostly spoke a language other than English at home. Large majorities of the White only and non-Mexican multiethnic respondents, ranging from 62% to 85%, reported they spoke exclusively English at home and with friends.

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Analysis Strategy

We present results that predict the extent of lifetime and current drug use, and the degree to which students adhere to a range of antidrug norms, using strength of ethnic identity and multiethnic affiliations as predictors, and controlling for gender, English vs. other language use, academic performance, socioeconomic status, and age. Significant group differences are analyzed through an examination of bivariate correlations and ordinary least-squares regressions.

RESULTS

Overall, the findings of this study confirm the results of previous studies on ethnicity, ethnic identity, and drug use (Gilvarry, 2000; Marsiglia and Waller, 2002, Marsiglia et al., 2001; Petraitis et al., 1998; Spooner, 1999). The findings advance our understanding of within-group differences, specifically in reference to Mexican/Mexican American adolescents in the Southwest region. Although an association was found between ethnicity/ethnic identity and drug use, the posited protective effects of ethnicity and ethnic identity were not always clear among students included in this Southwest sample.

Table 3 presents the means and standard deviations for variables used in the analysis and correlations with selected independent variables. There are many correlations between drug use and the predictor variables. Age and gender separately and together offer some insights about the drug use differences of the sample. Older students and boys use drugs somewhat more than younger students and girls do, including alcohol, tobacco, and marijuana, and they use them more frequently. Boys and older students also are less likely to hold strong antidrug personal norms, and are less likely to report strong antidrug injunctive norms from friends. However, boys are less likely than girls to think that most of their classmates use drugs, whereas older students are more likely to report widespread drug use among school peers. School achievement is strongly related to drug use outcomes. Grades are inversely related to the amount and frequency of lifetime and current drug use, and relate directly to the strength of antidrug use personal and injunctive norms.

Higher acculturation, measured by the use of English only with family and friends is significantly correlated with higher lifetime drug use, weaker antidrug use personal norms, and higher estimates of the proportion of school peers who use drugs, but is not significantly related to higher current drug use. Students coming from households with lower SES, as measured by receiving a free or reduced-price school lunch, use alcohol less and are slightly more likely to report widespread drug use among school peers. Finally, strength of ethnic identity is generally associated with less drug use, except for alcohol, and to stronger antidrug personal, injunctive, and descriptive norms.

Other correlations among the predictor variables are noteworthy. White and African American students tend to be monolingual English speakers, whereas Mexican students and those receiving free or reduced-price school lunches are less likely to speak only English. Reported grades are higher for younger, female, and White students, as well as those not receiving free or reduced-price school lunches. Strength of ethnic identity, which does not vary appreciably across ethnic groups, is lower for those with poor grades and for English monolingual students.

Table 4 presents ordinary least-squares regression estimates of the main effects of age, gender, school performance, language use, SES, ethnic label, and ethnic identity, as well as the interactive effects of ethnic label and ethnic identity. For each of the drug use outcomes (lifetime alcohol, cigarette, and marijuana use and number of seven drugs ever used), the equations first assess the differences by ethnic label, using dummy variables for Mexican

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Americans, other Latinos/as, African Americans, American Indians, Mexicans of mixed ancestry, and all others of mixed ethnicity, all of whom are contrasted with the omitted non-Hispanic White reference group. The strength of the ethnic identity factor score is also added to this first model. The second equation includes estimates of the interaction of ethnic group label and strength of ethnic identity. These equations form a consistent and theoretically interpretable pattern.

The regressions indicate that when controlling for other factors, older students, boys, those with poor grades, and monolingual English speakers have higher lifetime use of alcohol, cigarettes, and marijuana, and have used more types of different drugs. Students receiving free or reduced-price school lunches, presumably from lower SES homes, use less alcohol and have tried fewer drugs overall. Compared with non-Hispanic Whites, Mexican Americans—both those with and those without multiethnic affiliations—report more frequent use of alcohol, cigarettes, and marijuana, and use more types of drugs overall. The same pattern appears for American Indians and non-Mexican multiethnic students, with the exception of lifetime alcohol use, which is either lower or indistinguishable from the White use rate for these two groups. Other Latino and African American students report higher lifetime use of marijuana than White students.

The factor score measuring strength of ethnic identity is inversely related to lifetime marijuana use and the number of different drugs ever used by respondents, but is not related to alcohol or cigarette use. However, a more complex interpretation is required after the interaction effects between ethnic group and strength of ethnic identity are added to the models. These effects indicate the distinctive influence of strength of ethnic identity for particular ethnic groups, with the main effect for strength of ethnic identity applying specifically to non-Hispanic White respondents only. The coefficients indicate that a strong sense of ethnic identity generally predicts lower drug use for White respondents, but higher drug use for Mexican Americans and American Indians. Strong ethnic identity is also predictive of more lifetime cigarette use by African Americans, and higher lifetime alcohol use by Mexicans of mixed heritage.

The patterns in Table 4 are largely reproduced in Table 5, which examines current rather than lifetime drug use. Once again, older, English monolingual, American Indian, Mexican only, and multiethnic Mexican students tend to report higher drug use, whereas students with better grades and those receiving free or reduced-price school lunches show lower use rates. African Americans and non-Mexican Latinos report more current use of marijuana than Whites, and non-Mexican multiethnic students report more cigarette and marijuana use. Once again, strength of ethnic identity is sometimes associated with less current drug use, but the interaction effects indicate that this association applies most generally to Whites and at times to non-Mexican Latinos. For Mexican only, mixed heritage Mexican, and American Indian respondents, a strong sense of ethnic identity is connected to relatively higher current use rates of alcohol and cigarettes, although not for marijuana.

In Table 6, many of the same patterns reappear again when examining predictors of norms toward drug use. Certain groups appear at greater risk by espousing weaker antidrug use personal and injunctive norms, and reporting higher rates of drug usage among their school peers: older students, males, poor academic performers, monolingual English speakers, Mexican Americans, and multiethnic Mexicans. Non-White students, in general, are more likely to report that a high proportion of their school peers use drugs, and American Indians report less adherence to antidrug use personal norms.

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Strength of ethnic identity is a protective factor overall, associated with stronger antidrug use personal and injunctive norms. However, the interactions indicate that this is especially true for White students and is less so for American Indian and Mexican students.

DISCUSSION

The results support the idea that ethnicity and ethnic identity are factors in youth drug use rates and drug use norms in the Southwest, as has been found in research conducted in other regions. However, the hypothesized “protective effects” of ethnicity and ethnic identity against drug use were confirmed for some groups of students but not for others.

These results partially confirm previous findings about the drug use norms and behaviors of Mexican American and other preadolescents residing in a large urban center of the Southwest and magnet for Mexican and other Latino immigration. In large measure, the results regarding school achievement and drug use are consistent with the findings of other research studies conducted with this age group (Beman, 1995; Gilvarry, 2000; Hawkins et al., 1992; Marsiglia and Waller, 2002, Marsiglia et al., 2001; Petraitis et al., 1998; Spooner, 1999). Older students, boys, and lower achievers use more drugs. Students reporting lower drug use rates and identifying more strongly with antidrug use norms tend to be younger, female, and have higher grades. In this sample, the students who are at less risk also tend to identify solely as non-Hispanic Whites and belong to families with lower SES.

The ethnic self-label findings presented in this article differ some what from the findings of our previous research, where ethnic pride was identified as a “protective factor” for ethnic minority students (Marsiglia and Waller, 2002, Marsiglia et al., 2001). The overwhelming representation of Mexican Americans in the current sample and the larger sample size of the current study provides additional insights about within-group differences. Students self-labeling as Mexican Americans solely and as multiethnic Mexican Americans reported a lifetime higher drug use than those self-labeling only as non-Hispanic White. American Indian students reported more use of cigarettes and marijuana, but less use of alcohol, whereas African American students reported more use of marijuana than White students. Although a stronger sense of ethnic identity predicted lower drug use and stronger antidrug norms overall, these effects were stronger for non-Hispanic Whites than for Mexican American and American Indian students.

These findings need to be interpreted in light of the current demographics of the schools and neighborhoods that are the social milieu for these students. Some of these findings may be related to the dramatic demographic changes sweeping the city and its schools in the last few years. More than three-fourths (77%) of the schools in the sample had majority Latino enrollments, and 70% of our student respondents attended these schools. Schools with overwhelming Latino majorities (75% or more) accounted for 42% of the schools and 42% of the respondents. Mexican Americans were then typically the numerical majority in these schools. The fact that ethnic identity manifested itself as a stronger protective effect for non-Mexican White students against drug use can be interpreted as a result of White students’ numerical minority status in the schools. In contrast with society at large, White students in this Southwest context may need to think about their ethnicity and develop a sense of self differently. Most White respondents are in schools and neighborhoods where their classmates from Mexican backgrounds constitute the numerical majority. In this context, traditional research on majority–minority status and ethnic identity may not apply. To be European American in a numerically majority Mexican/Mexican American community places White students in a cultural minority status, making them question their identity in ways in which their counterparts in other White majority communities have the privilege of not thinking about. At the same time as Mexican/Mexican American students in the

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Southwest reside in ethnically segregated neighborhoods, they may not have to negotiate with majority culture on a daily basis, but they are also excluded from some of the benefits of majority culture, such as higher-quality educational systems.

In a sample that is 70% Latino, comparisons among ethnic groups can be expected to differ from those where non-Hispanic Whites are the majority. Perhaps more can be learned from comparisons *within* the Hispanic "umbrella" label. Although the great majority of the students in this category are, in fact, Mexican or Mexican American, they exhibit great variance due to differences in their acculturation, immigration status, and SES. Confirming previous research (Marsiglia and Waller, 2002), Spanish language appears to play a "protective role" against drug use. However, once students become English dominant (used in this study as a proxy for acculturation), they may lose that buffer against negative stereotypes and against exposure to drug use opportunities. It is possible that as adolescents learn English and expand their peer networks to include English speakers, their parents also lose their ability to monitor the new friendships for a lack of proficiency in the new language and a lack of exposure to the new youth culture. This trend needs to be studied further in association with parental monitoring.

The fact that Mexican students who are mostly Spanish monolingual or Spanish/English bilingual, as well as those from lower SES families, reported lower drug use and more conservative drug norms suggests the possibility that these groups have a high concentration of recent immigrants. These findings appear to support the hypothesis that as long as Mexican students are Spanish language dominant, they can more readily benefit from the strength of family and community of origin and can better resist negative influences from the host society, such as negative stereotypes about their ethnic origins, and the opportunities and social pressures that unsupervised English-speaking peer networks provide (Brook et al., 1998; Marsiglia and Waller, 2002). Once they acquire English, their peer networks expand, their connection to family weakens, they become more exposed to negative stereotypes about their community of origin and, at the same time, they incorporate a more permissive approach to drug experimentation (Marsiglia and Waller, 2002). Certainly this is not a cause-and-effect relationship. Multiple factors in combination appear to weaken the students' original resiliency.

More research is needed from an Ecological Risk and Resiliency Approach (Bogenschneider, 1996) in order to better understand not only what "protects," but also what puts Mexican American preadolescents "at risk" for drug use in the borderlands and in other contexts where they constitute a numerical majority. How much can one attribute these differences to the lack of effectiveness of standardized prevention programs serving majority Mexican American schools? More research is also needed to better understand the culturally grounded protective factors keeping some of these youth away from drugs as they become more acculturated. Once those factors are identified, they need to be incorporated into prevention curricula as a means to enhance the cultural specificity of school-based prevention interventions.

The described demographic changes and the findings of this study support the premise that comparing ethnic minority students to White students is no longer possible or useful in some parts of the country. In addition, traditional linear methodological tools may provide misleading results as they are applied to the study of this complex phenomenon (Buscema, 1998). To advance our knowledge on the etiology of drug use, mixed methods need to be considered as a means to conduct intragroup survey data comparisons supported by ethnographic data.

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This type of research can also be useful to inform existing or new approaches to prevention. Identifying protective factors grounded in the culture of the youths can be packaged in the form of interventions that will feel natural to the consumers and will be more easily adapted. To identify key behaviors and practices, participatory research methods can be used as a means to actively involve the consumers throughout the process.

To advance a culturally grounded prevention agenda, teacher training is needed to involve teachers and administrators in a cultural switch that will make schools reflect their neighborhoods, and their students' cultures. These efforts need to be supported and encouraged by the appropriate policies and active parental and community participation. Finally, intervention research studies are needed to assess the effectiveness of these efforts in different social contexts and under different conditions.

Understanding the relationship between acculturation status and drug use is a critical remaining issue for further study if we are to advance our knowledge on ethnicity and substance use. We need to study if and how acculturation and acculturation stress may be eroding the actual, as well as potential, protective effects of ethnicity.

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APPENDIX A: QUESTIONNAIRE ITEMS AND INDEX CONSTRUCTION

Lifetime Drug Use

- "How many drinks of alcohol have you had in your entire life?" Natural log of original Likert scale responses: 1="None" to 10="Over 100 drinks."
- "How many cigarettes have you smoked in your entire life?" Natural log of original Likert scale responses: 1="None" to 10="More than 20 packs."
- "How many times have you used marijuana in your entire life?" Natural log of original Likert scale responses: 1="Never" to 10="Over 30 times."
- An additive index of the number of seven different types of drugs ever used in lifetime: alcohol, cigarettes, smokeless tobacco, marijuana, "hard drugs" (cocaine, crack, LSD, PCP, heroin), "uppers" (speed, crystal meth), and inhalants (glue, spray, gas).

Current Drug Use

- "How many drinks of alcohol you had in the past 30 days?" Natural log of original Likert scale responses: 1="None" to 10="More than 30 drinks."
- "How many cigarettes have you smoked in the past 30 days?" Natural log of original Likert scale responses: 1="None" to 10="More than 2 packs."
- "How many 'hits' of marijuana have you had in the past 30 days?" Natural log of original Likert scale responses: 1="Never" to 10="Over 40 hits."
- Frequency of recent drug use, mean of three items: "How many days in the last 30 days have you …" (1) … "had alcohol to drink?" (2) … "smoked cigarettes?" (3) … "smoked marijuana?" Transformed by calculating the natural log of original Likert scale responses: 1="None" to 6="16–30 days."

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Antidrug Personal Norms. Mean of eight items in three groups

A. "Is it OK for someone your age to …" "drink alcohol," "smoke cigarettes," or "use marijuana?" Responses: 1="Definitely OK" 2="OK" 3="Not OK" 4="Definitely not OK."

B. "Is it OK for people to …" "sniff gasoline, glue, or spray?" or "try LSD, crack, cocaine?" Responses: 1="Definitely OK" 2="OK" 3="Not OK" 4="Definitely not OK."

C. "If someone offered you … " … "alcohol to drink (beer, wine, hard liquor)," … "a cigarette," or " … marijuana," … "what would you say?" Responses: 1="Definitely yes" 2="Yes" 3="No" 4="Definitely no."

Antidrug Injunctive Norms (Friends). Mean of three items: "How do you think your best friends would act toward you if you …" … "smoked marijuana?," … "smoked cigarettes?" or … "drank alcohol?" Responses: 1="Very friendly" 2="Pretty friendly" 3="A littleunfriendly"4="Very unfriendly."

Descriptive Drug Use Norms. Mean of two items for school peers: "If you were to guess how many students in your school have tried alcohol, tobacco, and other drugs at least once, how many would that be?" and "How many kids in your school do you think use drugs regularly?" Responses: 1="Hardly any" 2="Some" 3="Half "4="Most."

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Table 1

Selected background characteristics of the sample (*N*=4364).

Age	Range, 11–17; mean, 13.0; SD, 0.8			
Gender	Male, 48%; female, 52%			
Ethnicity	Mexican only	55%		
	Mexican multiethnic	12%		
	Other Latino	03%		
	White	15%		
	African American	06%		
	American Indian	03%		
	Other multiethnic	06%		
Socioeconomic status	Free school lunch	74%		
	Reduced-price school lunch	08%		
	Full-price lunch	18%		
Usual grades	Mostly As	10%		
	A and B	32%		
	Mostly Bs	09%		
	B and C	27%		
	Mostly Cs	06%		
	C and D	11%		
	Mostly D and lower	05%		
Language use				
		Mostly English	Bilingual	Mostly Spanish
Language use with Friends		61%	29%	10%
Language use with Family		46%	31%	23%

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Table 2

Factor analysis of ethnic identity measures (factor loadings, *N*=4364).

I like to do things that people of my race/culture do	0.642
I usually talk like other people from my race/culture	0.555
If I could choose, I would still be of my race/culture	0.687
I feel good about being from my race/culture	0.685
Sometimes I am embarrassed by the way people from my race/culture talk	−0.400
People from my race/culture do not know how to act	−0.445

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Table 3

Means, standard deviations, and selected correlations for variables used in analysis.

	N	Mean	SD	Correlation[a] with Age	Male	Grades	English	School lunch	Ethnic identity
Lifetime alcohol use (no. drinks) [log]	4323	0.88	0.76	0.072	0.098	−0.146	0.085	−0.053	−0.012
Lifetime cigarette use (no. smoked) [log]	4340	0.52	0.70	0.102	0.078	−0.196	0.046	0.003	−0.047
Lifetime marijuana use (no “hits”) [log]	4326	0.30	0.58	0.118	0.088	−0.229	0.090	0.009	−0.076
Number of different drugs used	4364	1.21	1.59	0.098	0.093	−0.214	0.049	−0.011	−0.074
Drinks of alcohol last 30 days [log]	4335	0.37	0.64	0.067	0.039	−0.134	0.017	−0.050	−0.028
Number of cigarettes last 30 days [log]	4341	0.15	0.42	0.087	0.044	−0.160	−0.007	−0.022	−0.072
Marijuana “hits” last 30 days [log]	4330	0.21	0.54	0.113	0.087	−0.191	0.042	−0.022	−0.064
Frequency used alc./cig./mar. last 30 days	4349	0.17	0.34	0.102	0.069	−0.190	0.021	−0.048	−0.065
Antidrug personal norms	4349	3.06	0.53	−0.105	−0.091	0.154	−0.065	0.026	0.108
Antidrug injunctive norms—friends	4139	3.04	0.75	−0.070	−0.111	0.156	−0.013	−0.012	0.063
Descriptive school norms (proportion using)	4319	2.56	0.88	0.082	−0.045	−0.111	0.101	0.037	−0.050
Age	4364	13.12	0.73	1.000	0.064	−0.106	0.001	0.037	−0.054
Gender (M = 1, F = 0)	4364	0.52	0.50	0.064	1.000	−0.149	−0.007	−0.035	−0.014
Usual grades	4328	6.56	1.83	−0.106	−0.149	1.000	0.045	−0.135	0.130
English: extent used with family and friends	4361	3.62	1.22	0.001	−0.007	0.045	1.000	−0.269	−0.103
School lunch	4364	0.81	0.39	0.037	−0.035	−0.135	−0.269	1.000	0.023
Mexican only	4364	0.55	0.50	0.029	0.006	−0.085	−0.469	0.303	0.091
Other Latino only	4364	0.03	0.17	0.022	−0.018	0.000	−0.083	0.018	−0.023
African American only	4364	0.06	0.24	−0.008	0.032	−0.005	0.235	0.058	−0.022
American Indian only	4364	0.03	0.17	0.011	0.001	−0.041	0.112	−0.013	−0.002
Mexican–mixed ethnic identity	4364	0.12	0.32	−0.006	−0.023	−0.024	0.005	−0.028	−0.055
Other mixed ethnic identity	4364	0.05	0.22	−0.028	−0.015	0.017	0.156	−0.064	−0.022
White only	4364	0.16	0.36	−0.027	0.007	0.150	0.371	−0.391	−0.036
Ethnic identity factor score	4240	0.00	1.00	−0.054	−0.014	0.130	−0.103	0.023	1.000

[a]Each correlation is based on 4240 or more cases, and is statistically significant at $p<0.05$ if $|r|>0.03$; at $p<0.01$ if $|r|>0.04$; and at $p<0.001$ if $|r|>0.052$.

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Table 4

OLS regression analysis of lifetime drug use.

	Lifetime alcohol use (number of drinks, log)		Lifetime cigarette use (number, log)		Lifetime marijuana use (number of "hits," log)		Number of seven different drugs ever used	
	b	b	b	b	b	b	b	b
Intercept	0.809[a]	0.800[a]	0.373[a]	0.365[a]	0.098[a]	0.095[a]	0.867[a]	0.848[a]
Age	0.055[a]	0.055[a]	0.079[a]	0.079[a]	0.075[a]	0.074[a]	0.167[a]	0.167[a]
Gender (M = 1, F = 0)	0.120[a]	0.125[a]	0.075[a]	0.080[a]	0.065[a]	0.067[a]	0.217[a]	0.229[a]
Usual grades	−0.056[a]	−0.055[a]	−0.064[a]	−0.064[a]	−0.060[a]	−0.060[a]	−0.158[a]	−0.158[a]
English: fam./Fr.	0.085[a]	0.088[a]	0.053[a]	0.055[a]	0.071[a]	0.072[a]	0.123[a]	0.128[a]
School lunch	−0.109[a]	−0.116[a]	−0.031	−0.036	−0.041	−0.043	−0.162[c]	−0.173[c]
Mexican only	0.152[a]	0.164[a]	0.167[a]	0.176[a]	0.230[a]	0.233[a]	0.438[a]	0.459[a]
Other Latino only	0.068	0.069	0.052	0.052	0.172[b]	0.165[b]	0.156	0.139
African Amer. only	−0.103	−0.094	−0.044	−0.034	0.176[a]	0.177[a]	0.017	0.037
Amer. Indian only	−0.154[c]	−0.144[c]	0.220[a]	0.229[a]	0.332[a]	0.335[a]	0.531[a]	0.551[a]
Mexican–Mixed ID	0.186[a]	0.204[a]	0.222[a]	0.232[a]	0.285[a]	0.292[a]	0.602[a]	0.633[a]
Other mixed ID	0.021	0.028	0.105[c]	0.105[c]	0.113[b]	0.110[c]	0.237[c]	0.236[c]
Ethnic ID	0.013	−0.071[c]	−0.012	−0.081[b]	−0.021[c]	−0.036	−0.065[b]	−0.213[a]
Mex.×ethnic ID		0.109[a]		0.098[b]		0.018		0.200[b]
Other Lat.×eth. ID		−0.005		−0.008		−0.057		−0.155
Afr. Am.×eth. ID		0.080		0.097[c]		0.011		0.182
Indian×ethnic ID		0.144[c]		0.174[b]		0.102[c]		0.476[a]
Mex. mix.×eth. ID		0.125[b]		0.073		0.047		0.219[c]
Other mix.×eth. ID		0.063		−0.002		−0.032		−0.018
R^2	0.053	0.057	0.060	0.064	0.096	0.098	0.074	0.079
N	4177	4177	4190	4190	4176	4176	4208	4208

[a] $p<0.001$.

[b] $p<0.01$.

[c] $p<0.05$.

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Table 5

OLS regression analysis of current drug use.

	Drinks of alcohol last 30 days (log)		Number of cigarettes last 30 days (log)		Marijuana hits last 30 days (log)		Frequency used alc./cig./mar last 30 days (log)	
	b	b	b	b	b	b	b	b
Intercept	0.337[a]	0.332[a]	0.124[a]	0.121[a]	0.090[a]	0.087[b]	0.132[a]	0.129[a]
Age	0.050[a]	0.050[a]	0.040[a]	0.040[a]	0.065[a]	0.065[a]	0.038[a]	0.038[a]
Gender (M=l, F=0)	0.025	0.028	0.019	0.022	0.064[a]	0.067[a]	0.028[b]	0.030[b]
Usual grades	−0.043[a]	−0.043[a]	−0.033[a]	−0.033[a]	−0.047[a]	−0.047[a]	−0.031[a]	−0.03l[a]
English: fam./fr.	0.033[a]	0.035[a]	0.003	0.004	0.036[a]	0.037[a]	0.015[b]	0.016[b]
School lunch	−0.136[a]	−0.140[a]	−0.047[b]	−0.049[b]	−0.097[a]	−0.099[a]	−0.072[a]	−0.074[a]
Mexican only	0.180[a]	0.187[a]	0.059[b]	0.063[b]	0.199[a]	0.202[a]	0.097[a]	0.100[a]
Other Latino only	0.079	0.071	0.062	0.051	0.134[c]	0.133[c]	0.046	0.037
African Amer. only	−0.005	−0.003	−0.015	−0.010	0.139[a]	0.141[a]	0.015	0.018
Amer. Indian only	0.026	0.032	0.095[c]	0.099[c]	0.298[a]	0.301[a]	0.109[a]	0.112[a]
Mexican–mixed ID	0.166[a]	0.177[a]	0.070[b]	0.077[b]	0.242[a]	0.247[a]	0.121[a]	0.127[a]
Other mixed ID	0.049	0.052	0.090[b]	0.086[b]	0.088[c]	0.084[c]	0.047	0.045
Ethnic ID	−0.005	−0.053[c]	−0.022[a]	−0.048[b]	−0.019[c]	−0.037	−0.013[c]	−0.033[b]
Mex.×ethnic ID		0.072[b]		0.037[c]		0.030		0.031[c]
Other Lat.×eth. ID		−0.069		−0.079[c]		−0.016		−0.069[c]
Afr. Am.×eth. ID		0.017		0.046		0.020		0.025
Indian×ethnic ID		0.125[c]		0.113[b]		0.069		0.062[c]
Mex. mix.×eth. ID		0.073[c]		0.045		0.032		0.036[c]
Other mix.×eth. ID		0.026		−0.039		−0.046		−0.016
R^2	0.035	0.039	0.040	0.047	0.070	0.072	0.063	0.068
N	4183	4183	4191	4191	4181	4181	4197	4197

[a] $p<0.001$.

[b] $p<0.01$.

[c] $p<0.05$

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Table 6

OLS regression analysis of drug-related norms.

	Antidrug personal norms (scale)		Antidrug injunctive norms—friends (scale)		Prodrug descriptive school norms (scale)	
	b	b	b	b	b	b
Intercept	3.178[a]	3.180[a]	3.237[a]	3.244[a]	2.294[a]	2.286[a]
Age	−0.060[a]	−0.059[a]	−0.049[b]	−0.050[b]	0.092[a]	0.092[a]
Gender (M = 1, F = 0)	−0.073[a]	−0.074[a]	−0.140[a]	−0.143[a]	−0.104[a]	−0.100[a]
Usual grades	0.034[a]	0.034[a]	0.049[a]	0.049[a]	−0.044[a]	−0.044[a]
English: fam./fr.	−0.051[a]	−0.051[a]	−0.040[a]	−0.042[a]	0.115[a]	0.117[a]
School lunch	0.063[b]	0.064[b]	0.051	0.056	0.012	0.008
Mexican only	−0.173[a]	−0.175[a]	−0.207[a]	−0.215[a]	0.361[a]	0.371[a]
Other Latino only	−0.051	−0.038	−0.135	−0.142	0.204[c]	0.210[c]
African Amer. only	−0.014	−0.016	−0.092	−0.099	0.335[a]	0.350[a]
Amer. Indian only	−0.157[b]	−0.159[b]	−0.094	−0.099	0.428[a]	0.438[a]
Mexican–mixed ID	−0.178[a]	−0.182[a]	−0.245[a]	−0.256[a]	0.429[a]	0.440[a]
Other mixed ID	−0.003	−0.004	−0.075	−0.079	0.242[a]	0.243[a]
Ethnic ID	0.045[a]	0.062[b]	0.032[b]	0.093[b]	−0.023	−0.098[b]
Mex.×ethnic ID		−0.020		−0.078[c]		0.085[c]
Other Lat.×eth. ID		0.090		−0.022		0.038
Afr. Am.×eth. ID		−0.022		−0.064		0.152[b]
Indian×ethnic ID		−0.107[c]		−0.139[c]		0.230[b]
Mex. mix.×eth. ID		−0.033		−0.080		0.086
Other mix.×eth. ID		−0.011		−0.031		0.019
R^2	0.064	0.066	0.046	0.048	0.055	0.058
N	4197	4197	3999	3999	4173	4173

[a] $p<0.001$.

[b] $p<0.01$.

[c] $p<0.05$.

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