

Language Preference and Drug Use among Southwestern Mexican American Middle School Students

A ethnic minority youths make up an increasing proportion of the nation's adolescent population, the need to further understand the relationship between acculturation and drug use is becoming more apparent to substance abuse researchers (De La Rosa, Segal, & Lopez, 1999; McWirter, McWirter, McWirter & McWirter, 1998). Although much attention has been given to the relationship between acculturation status and drug use, empirical support for such a relationship has been inconclusive. We conducted a comprehensive review of research findings test several hypotheses about the relationship of acculturation to mental health status and found studies supporting each of several competing hypotheses (Rogler, Cortes, & Malgady, 1991). In addition, there is little empirical research examining drug resistance among ethnic minority youths (Gold, Thomas, & Davis, 1987; Rodriguez, 1995), particularly Latinos (Escobedo, Remington, & Anda, 1989).

This article presents the findings of a survey completed by students attending two urban middle schools in the Southwest. It explores the relationship between drug use and ac-

This article explores the drug use patterns of a sample of Southwestern Mexican American middle school students using language preference as a marker of acculturation status. The study was conducted from a resilience perspective, approaching language preference as a possible protective factor. Spanish monolingual students were found to use significantly less alcohol and other drugs than bilingual or English dominant students. Being more acculturated as measured through more English use, having poor grades, and being older were found to be risk factors toward drug use. Socioeconomic status was not found to be significant as either a risk or a protective factor. Recommendations for social work practice are framed within the identified language and acculturation continuum.

Key words: acculturation; language use; Mexican American; preadolescents; substance use

culturation status, as measured by language use, among a sample of Mexican American middle school students. We hypothesized that Spanish preference might act as a protective factor against drug use among less acculturated students.

Literature Review

Acculturation

Acculturation is the process in which an individual's attitudes and

behaviors change as a result of exposure to a different society. Such cultural reorientation can take many paths. Lessenger (1997) described three outcomes: *acceptance* or the loss of the culture of origin; *adaptation*, or the combining of both cultures; and *reaction* which results in rejection of the new culture. Assimilation is different from acculturation because it occurs when an individual's original cultural identity is replaced with identification with the dominant culture. Alternatively, integration results when aspects of the original and dominant culture are combined (Berry, 1983; Berry & Uichol, 1988). Acculturation may lead to rejection of the host culture or to "marginalization," whereby the individual identifies with neither culture. "Cultural transmutation" is another possible outcome (Mendoza, 1989). In this scenario, the individual may reject both the original and the dominant cultures and identify with a third culture.

Models that attempt to explain the acculturation process include the linear model, the cultural identity model, and the multidimensional model (Vega, Gil & Wagner, 1998). The linear model suggests that acculturation occurs on a continuum with the competing cultures as endpoints. A characteristic such as language is used as a marker to describe the individual's place on the continuum. As individuals become more acculturated to the dominant society, they lose more and more of their traditional values, beliefs, and behaviors.

The cultural identity model relies on self-described attributes such as levels of ethnic activism and pride (Felix-Ortiz & Newcomb, 1995) to ascertain the individual's subjective identification with one culture over the other. On the other hand, the multidimensional model recognizes

that orientation to a culture consists of numerous facets. For example, an individual may be of Mexican heritage and enjoy dancing traditional Mexican dances but be unaware of associated historical, cultural, or ritualistic meanings. Thus, a variety of beliefs and behaviors must be assessed to determine the individual's cultural orientation.

Language Use as a Marker of Acculturation

Regardless of which model is followed, measures of acculturation are varied, and there is no consensus on a factor or combination of factors that can most accurately assess acculturation. Acculturation instruments range from single indices, such as language usage, to measures that use multiple sociocultural characteristics such as nationality, language, and occupational status; and finally, to measures that also include behavior and psychological dimensions (Cuellar, Harris, & Jasso, 1980). Generally, constructs include language usage and preference in a variety of contexts, ethnic identity and pride, generational proximity, ethnic distance and perceived discrimination, participation in cultural traditions and lifestyle, cultural heritage, media preferences, and ethnicity of peer and social groups (Cuellar et al., 1980; Marin, Sabogal, Marin, Otero-Sabogal, & Perez-Stable, 1987; Padilla, 1980).

Measures that assess only one characteristic, such as language usage, have been criticized for being reductionistic, because they do not adequately assess the multifaceted process of acculturation (Rogler et al., 1991). Bipolar models assume that as individuals become more involved in the dominant society, their involvement in their culture of origin decreases.

Alternatively, the "orthogonal cultural identification theory" posits that cultural identification with any culture is independent of identification with another (Oetting & Beauvais, 1991). For example, from this perspective it is possible to be fully identified with more than one culture. Therefore, acculturation measures that do not recognize biculturality may not accurately assess those individuals with high levels of identification or practices in more than one culture. Several attempts have been made to develop or modify instruments to address these concerns (Mendoza, 1989; Oetting & Beauvais, 1991).

Given the complex nature of acculturation, one-dimensional measures may not validly measure all aspects of acculturation. This criticism is leveled often at measures of language proficiency and usage, one of the most common characteristics assessed, as an indicator of acculturation status (Lovato, Litrownick, Elder, Nunez-Liriano, Suarez, & Talavera, 1994). However, there appears to be ample empirical evidence that language may be an important component of acculturation and therefore may be a useful proxy for acculturation status. Rogler and colleagues (1991) came to this conclusion after reviewing 30 studies relating acculturation to mental health status. In their revision of the Acculturation Rating Scale for Mexican Americans (ARSI'VIA) the authors also reported language as accounting for a substantial portion of the variance (Cuellar, et al., 1980).

Lessenger (1997) reported similar variance statistics for the language factor when using the ARSMA. In sum, whereas language use alone cannot capture the multiple dimensions of acculturation, it is a useful marker

of acculturation status of early adolescents. On this basis, we have chosen language preference as the best proxy for acculturation status.

Acculturation and Drug Use

In general, research findings supporting a link between acculturation and drug use have been mixed (Brooks, Stuewig, & LeCroy, 1998). Several epidemiological studies have found high acculturation to be associated with higher rates of drug use (Amaro, Whitaker, Coffman & Heeren, 1990; Burnam, Hough, Karno, Escobar, & Telles, 1987; Vega, Kolody, Hwang, & Noble, 1993; Vega et al., 1998). Escobar (1998) hypothesized that these differences may be due to greater availability, easier access, and relative acceptability of recreational drug use in the United States.

A study on acculturation, alcohol consumption, and causality among Hispanics in emergency rooms reported that highly acculturated Hispanic men were more likely to be legally intoxicated and report heavy drinking (Cherpitel, Pares, & Rodes, 1992). A more recent study reported that highly acculturated Hispanic adolescent women were more likely to use drugs than their less acculturated counterparts (Fraser, Piantentini, Van Rossem, Hien, & Rotheram-Borus, 1998).

In addition, a linear relationship was found between drug use and acculturation in a sample of Mexican-born individuals in which less acculturated participants had lower drug use prevalence rates than the medium and highly acculturated ones (Farabee, Wallisch, & Maxwell, 1995). The same pattern was found among a sample of first-, second-, and third-generation Hispanic adolescents in grades seven through 12. Drug use increased with each generation. Students identified

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as third generation reported the highest rate of drug use (Hernandez & Charney, 1998).

In contrast, other studies found that less acculturated Hispanic men were more likely to use drugs and concluded that there was no relationship between acculturation status and alcohol use (Zayas, Rojas, & Malgady, 1998). One study identified a weak and indirect acculturation influence on drug use models for both adolescent Hispanic of both genders (Brooks et al., 1998). Another study found that family acculturation level had no effect on inhalant use in children (Bonnheim & Korman, 1985). In addition, other researchers did not find a direct relationship between acculturation and inhalant, alcohol, and illicit drugs and crime outcomes among Mexican American adolescents but did note that acculturation might have an indirect effect on these variables through socialization and psychological factors (Barrett, Joe, & Simpson, 1991).

These contradictions document the complexity associated with the study of acculturation and its possible relationship to drug use. A resilience approach has guided our efforts to study the multifaceted nature of the phenomenon. It is from that theoretical perspective that we conducted our investigation and interpreted our findings.

Theoretical Approach: Risk and Protective Factors

Risk factors generally have been conceptualized as attributes of the individual, the peer group, the community, and the environment. Much less is known about protective factors (Wills, Vaccaro & McNamara, 1992). In a seminal article reflecting on the concept of "protective factors," Rutter (1984) suggested that

the focus of attention should be on protective processes rather than on factors or variables, because the word process better captures the complex relational and contextual aspects of resilience and moves us away from the linear, reductionistic idea that certain individuals, families, communities, and environments have intrinsic protective attributes.

Considering relational and contextual factors also makes it possible to understand the wide variability in individual responses to risk (Bernard, 1994; Saleebey, 1997). The current challenge for resilience researchers is to discover the processes and environmental conditions associated with positive adaptational outcomes following adverse life experiences (Bernard, 1994; Garmezy, 1994).

The most commonly cited risk factors thought to predispose adolescents to drug use are ego distonic thoughts, feelings that exceed the adolescent's coping ability, and peer influence. Highly empathic early adolescents may be especially sensitive to high-stress environments-leading to distress and attempts to self-medicate (Wyman, Cowen, Work, & Parker, 1992). Among these risk factors, peer influence appears to be the most influential (Kandel, 1995) regardless of cultural or racial background (Padilla, Padilla, Morales, Olmedo, & Ramirez, 1979).

Protective individual attributes associated with resistance to drug use include self-esteem, a realistic view of what is in their control, personal competence and goal setting and problem-solving skills, faith in a higher power or a spiritual philosophy of life, and connections with prosocial peers (Anthony & Cohler, 1987; Werner & Smith, 1992).

Although connections with competent peers in the context of

prosocial activities have protective value (Rutter, 1984), social competence may be a double-edged sword. For example, adolescents are vulnerable when their friends use drugs, particularly when levels of adult support are low (Wills, McNamara, & Vaccaro, 1995).

The shift in influence from parents to peers has been identified as one of the most important developmental changes in the life of preadolescents (Bailey & Hubbard, 1990). Initiation into drug use was found to be influenced primarily by parental attachment among sixth graders, and mostly by peer attachment in the ninth grade, with a mixture of parent and peer attachment influencing students in intermediate grades (Bailey & Hubbard, 1990). Preadolescents find themselves with increasing unsupervised time and exposure to peers—factors that have been related to higher levels of drug use and delinquent behavior (Chilcoat, Dishion, & Anthony, 1996; Duncan, Duncan, Biglan, & Ary, 1998; Feiring & Lewis, 1993; Flannery, Williams, & Vazsonyi, 1999). For example, a study conducted in the early 1990s found that when their children are between middle childhood and early adolescence, mothers are 64 percent less likely to know who their children's friends are (Feiring & Lewis, 1993).

Language preference may act as a gateway to interacting with different types of peers or might have a delaying effect on the Spanish monolingual students' peer network expansion. Spanish monolingual early adolescents tend to follow more traditional and conservative norms of behavior such as respect for authority and adhering to adult sanctioned norms (Marsiglia & Navarro, 1999). It is reasonable to expect that Spanish monolingual students will interact

most with other Spanish monolingual students during school planned time (for example, ESL classes) and unplanned time (for example, the school yard). For example, in Arizona, the majority of the Mexican immigrant families come from predominantly rural and culturally traditional states such as Sonora and Sinaloa. We hypothesized that as Spanish monolingual students learn English, their network of interactions and friendships expands. These expanded networks open the way to more permissive norms toward drug use. These research questions guided the development of the study reported in this article.

Method

Respondents

The sample used to conduct the study consisted of 351 seventh grade Mexican American early adolescents. The data used for this analysis came from a survey administered as part of a study of drug use/resistance among students in two middle schools in a large Southwestern city (Brooks et al., 1998). The participating schools are located in low-income neighborhoods and serve predominantly populations of ethnic minority groups. The students ranged in age from 13 to 15. Fifty-seven percent ($n = 201$) were girls and 43 percent ($n = 150$) were boys. Seventy respondents (20 percent) chose to complete the Spanish language version of the survey. Sixty percent of the students who completed the survey were participants in a subsidized lunch program.

Procedures

Research assistant teams administered the survey during regular class periods during the spring of 1997. Spanish versions of the instrument

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and Spanish-speaking assistants were available for those students with limited English proficiency. Data were collected on a variety of demographic characteristics including gender, age, family income, school achievement, and language use. Socioeconomic status was determined with items asking if the student received a free or reduced-cost lunch.

School achievement was measured with one question about the grades the respondent received in school. The question used a 10-point scale ranging from "mostly below D" to "mostly As," with each point on the scale representing an increment of about half a letter grade (A to E). The language use scale included three questions concerning the language spoken with friends and family and whether respondents preferred English or Spanish language radio/TV (Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987). Responses to these questions were measured on a five-point Likert scale (ranging from 1 = Spanish only to 5 = English only). The scores on each of the language use items were tallied to create an acculturation index that ranged from one to 15. High scores indicated the use of more English, which was treated as a marker of a higher level of acculturation to mainstream U.S. culture. The language use scale had a Cronbach's alpha of .85, indicating high reliability.

We used simple frequencies, cross-tabulations, and logistic regressions to explore differences between the students' language use and their drug use behavior. Language use was treated as the independent variable and drug use was treated as the dependent variable. We also controlled for other variables such as gender, school performance, and socioeconomic status. Students were asked if

they had used various specified drugs during the past 30 days and were provided with a set of possible answers organized in a Likert scale (ranging from 1 = never to 5 = every day). Because of a low overall drug use rate, the scores of the three drug use items were collapsed to create a drug use dichotomous variable (0 = never used, 1 = used).

Results

Although students' preferred language differed across environments (that is, home, friends, and media), they tended to speak Spanish more at home than in any other setting. Forty-one percent of the students completing the survey were bilingual, 35 percent were English dominant, and 24 percent were Spanish dominant. Thus, 65 percent of the respondents spoke Spanish most of the time or spoke Spanish as much as they spoke English. We placed the students into three groups based on their reported language use with friends and family and whether they preferred Spanish or English media: (1) Spanish dominant, (2) bilingual, and (3) English dominant. Spanish dominant students self-reported very different patterns of drug use than the bilingual and English-dominant students (Table 1). For all drugs, Spanish-dominant students were about half as likely as more acculturated students to have tried drugs at least once. Spanish language preference as an indicator of lower acculturation status was associated with lower drug use. However, this protective factor was less strong as the acculturation process continued (using English proficiency as a marker of more acculturation).

The protective effect of Spanish language preference seemed to evaporate quickly once early adolescents acquired higher levels of proficiency

Table 1

Percentage of Students Ever Using Different Substances by Level of Acculturation

Substance	Spanish Dominant (<i>n</i> = 81)		Bilingual (<i>n</i> = 142)		English Dominant (<i>n</i> = 123)		Total (<i>N</i> = 346)		X- Prob.
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>		
	using		using		using		using		
Tobacco	18	22	63	44	52	42	133	38	
Alcohol	29	36	85	59	73	59	187	54	
Marijuana	7	9	62	43	51	41	120	35	
Inhalants	5	6	24	17	19	15	48	14	
Cocaine	3	4	11	8	12	10	26	7	
Other drugs	3	4	7	5	14	11	24	7	

** $P < .01$. *** $p < .001$.

Language Preference
and Drug Use among
Southwestern
Mexican American
Middle School Students

in English as their acculturation process accelerated.

The rate of alcohol use for Spanish-dominant students was slightly below two-thirds of the rate of bilingual and English dominant students (36 percent compared with 59 percent), whereas the rate of marijuana use was far lower, less than one-quarter of the bilingual/English-dominant groups' rates (9 percent compared with 41 percent and 43 percent, respectively). Spanish-dominant students reported a much lower use of marijuana than bilingual students (9 percent compared with 43 percent), as well as less use of inhalants (6 percent compared with 17 percent), cocaine (3 percent compared with 7 percent), and other drugs (3 percent compared with 5 percent).

There is a statistically significant positive relationship between language use/acculturation and drug use (Table 2). However, the relationship appears to be discrete not continuous. There is no gradual effect of acculturation. This may indicate that acquisition of English language proficiency leads to access to drugs. Even

among bilingual students, the Spanish language protection effect disappeared suddenly with acquisition of English.

The predictors of drug use in the multivariate model (Table 2) show that language use as a marker of acculturation is most certainly a relevant factor in drug use, especially for marijuana and "other" drugs. It is also relevant for tobacco, alcohol, and inhalants. Differences in the coefficients' relevance may be attributable to culture itself. In Mexican culture, alcohol is not proscribed nearly as much as marijuana and other drugs. As Mexican American students learn more English, they become more acculturated, they begin to feel comfortable in their new surroundings, and they increase their risk of using drugs such as marijuana, LSD, and heroin.

Low grades are another strong predictor of drug use. For tobacco, alcohol, marijuana, cocaine, and other drugs, the odds that the student has used these drugs increase 25 percent or more for each half-letter drop in grades. Although this model may show

that low grades are a relevant predictor of drug use, the causality remains unclear. Do low grades cause drug use, or does drug use cause low grades? That is an important question that cannot be settled to any satisfaction with these cross-sectional data.

Age was a significant predictor of all forms of drug use also, with sharply increasing odds of drug use with each passing birthday. Socioeconomic status (SES), however, was not a significant predictor for drug use, as indicated by the findings that students receiving free or reduced-cost lunches used some drugs (that is, alcohol, tobacco, and cocaine) less often than more socioeconomically privileged students. The failure of the SES estimates to reach statistical significance may be result from the fact that the sample consisted of students residing in the same area of a residentially segregated city. When we further investigated the interaction effects of language use/acculturation in combination with SES, this interaction was significant as a predictor of drug use only for inhalants (results not presented). This suggests that students from lower SES homes were more likely to use inhalants as they became more acculturated than other similarly acculturated students coming from homes with a higher SES. This may be an indication of the effect of SES on choice of drugs as students from different economic backgrounds become more acculturated. Inhalants are often readily accessible and free of cost to early adolescents.

Discussion and Implications

The findings suggest that language preference is a marker that can further our understanding of the relationship between acculturation status and drug use. The results of this study suggest that it is not culture per

se, or socioeconomic status, or acculturation status as indicated by language preference that predict drug use. Rather, acquiring a new language initiates students into new, previously inaccessible peer networks. As Mexican American students learn English, they begin to relate to new peers, adopt new norms, and are drawn to new experiences, which may lead to drug use (Hernandez & Chaney, 1998). This may explain why students in the sample who indicated a preference for speaking Spanish had half the rate of drug use compared with more acculturated students. Similarly, this may explain why bilingual speakers had nearly identical drug use rates compared with rates of their English-only counterparts—in fact, they were almost exactly alike. The results of the data analysis indicate that use of English seems to be a risk factor for drug use.

The fact that parents learn English at a slower pace than their children may result in limited contact with their children's new English-speaking acquaintances. To be Spanish-dominant appears to have a temporary protective effect for early adolescents by sheltering them from a developmentally driven expansion of their social networks that puts them at more risk of drug use (Escobar, 1998). Although it is difficult to equate language acquisition with acculturation, it appears that language acquisition enables students to gain access to the broader community and perhaps put themselves in situations in which drugs are offered (Chilcoat et al., 1996; Duncan et al., 1998; Feiring & Lewis, 1993; Flannery et al., 1999). The differences between alcohol and other drugs reported in the findings section speak to this gateway effect of English language proficiency. Alcohol may be available to

early adolescents in home or community contexts. Whereas it may be culturally normative for Spanish-dominant early adolescents to have experience with alcohol use, as these adolescents learn English and expand their social networks, they may start experimenting with other drugs not present in the more sheltered Spanish-dominant circles.

The results of this study remind us of the complexities of any acculturation process. In the case of Mexican American adolescents and youths from other ethnic minority groups, this complexity is accentuated by developmental issues and exposure to oppressive conditions related to ethnic minority status. Spanish dominance appears to be a protective factor that delays the expansion of adolescents' social networks and also delays intergenerational social distancing between early adolescents and their families.

Parents and other significant adults in the life of early adolescents can play an important role as cultural mediators in assisting adolescents in using their own cultural resources and strengths as they navigate through their own acculturation journey. School social workers and other helping professionals can serve as liaisons between home and school and bridge the gap between cultural contexts. After-school programs that provide adult supervision, role modeling, and support can play an important role in helping students make the transition into broader social networks while conserving protective factors present in their culture of origin. Such programs also can provide students with culturally grounded drug resistance skills. Bilingual, bicultural adult mentors also can mediate the vulnerability that accompanies the acculturation process.

Mexican American adolescents' culture of origin, as this study shows, may have a protective effect against drug use. Accordingly, traditional norms and practices are important personal resources that need to be recognized for their buffering effect. On the other hand, acculturation, while holding many possibilities for enrichment, brings new risks that should be recognized and mitigated. Schools are in a position to convey messages that either denigrate or validate ethnic identity and ethnic community values. Favorable adaptational outcomes depend on opportunities for adolescents to reconcile contradictory messages conveyed to them at home and at school. Drug use prevention and intervention needs to be grounded in the existing strengths present in the life and biography of the adolescent. Lacking language and cultural proficiency, some helping professionals may overlook the resources (for example, stories, practices, and culturally grounded support systems) that can lead to operationalizing a strengths perspective and fostering drug resistance in Mexican American adolescents. Whereas this and other studies represent a beginning, further research is needed to better understand the relationships between Spanish language use, peer networks, child-family links, and drug use. Adding an ethnographic component to the research design would allow for a better understanding of the acculturation process as it is experienced and explained by the adolescents themselves.

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155

Language Preference
and Drug Use among
Southwestern
Mexican American
Middle School Students

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