

PARENTAL PROMPTING AND SMOKING AMONG LATINO YOUTH

Objectives: Our previous research indicated that Latino parents, more so than non-Latino parents, may prompt their children to engage in behaviors that encourage them to “practice” smoking-related behaviors. The present study examined Latino and non-Latino adolescents’ reports of parental prompting, defined as parental requests to: 1) empty/clean ashtrays; 2) bring cigarettes to parent; 3) accept tobacco industry promotional gear as a gift; 4) buy cigarettes for parent; 5) light parent’s cigarette with a match or lighter; 6) start the cigarette in his/her own mouth and then pass it to parent; and 7) smoke with the parent.

Design and Methods: In 10 schools in the Southbay area of San Diego, 3,599 7th and 8th grade middle school students, the majority of whom were Latino, completed cross-sectional surveys assessing 7 parental prompts, past-month smoking, parental smoking, acculturation, and familism.

Results: Findings indicated that parental prompts were less prevalent than in our previous work. We also found that there were not consistent or great differences in the prevalence of prompting between Latinos and non-Latinos and that parental prompting, particularly requests that the child light the parent’s cigarettes with a match or lighter, was associated with children’s smoking. Further, we found that Latino adolescents may be influenced by more parental prompts than non-Latinos, and finally that higher familism scores were significantly associated with lower risk of smoking, regardless of ethnicity.

Conclusions: Parental prompting and familism appear to be important correlates of adolescent smoking. (*Ethn Dis.* 2002;12:508–516)

Key Words: Adolescents, Smoking, Parents, Family, Latino Americans, Culture

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INTRODUCTION

In the 2000 Monitoring the Future Study, 19.6% of Latino 10th graders and 16.6% of Latino 8th graders reported using cigarettes within the past 30 days compared to 28.2% of 10th grade and 17.7% of 8th grade White students.¹ Despite the slightly lower rates of smoking among Latinos, the issue is likely to become a more important public health concern since Latinos are the fastest growing ethnic minority in the United States. In addition, the acculturation process and targeted tobacco advertising may increase the incidence of cigarette smoking among some Latino groups (eg, females).^{2–3} In fact, past-month smoking increased among Latino adolescents by 34% from 1991 through 1997.² Susceptibility to smoking, defined as an absence of a conscious decision not to smoke in the future, is higher for Latino adolescents than for adolescents of other ethnicities,⁴ suggesting that smoking rates among Latinos may soon converge with those for Whites.⁵ The high rates of early smoking among Latinos both in the United States and their countries of origin suggest the influence of cultural factors in the acquisition of the smoking habit.^{6–10} Studies seeking to determine what influences the smoking acquisition process among Latino youth should examine specific cultural factors that may promote smoking in this group.

Two important predictors of smoking onset in youth are peer influences and family or parent factors.^{5,10–12} A study by Flay and colleagues showed that friends’ smoking may affect adoles-

cents smoking initiation directly and indirectly. However, parent smoking influenced smoking initiation only indirectly and was mediated through smoking intentions, negative outcome expectations, and parental approval of smoking.¹² Jackson, Henriksen and others found related results indicating that low levels of parental monitoring and low expectations of punishment for smoking predicted current smoking among youth. They also found that children of smoking parents had lower smoking rates if the parents explicitly communicated their non-approval of youth smoking to their children.^{13,14}

Influences to smoke from within the family may be especially strong for Latinos owing to the central role of the family in the culture.^{15–16} Our previous research indicates that Mexican and Mexican-American parents who smoke engage in behaviors that may “prompt” their children to smoke.^{7,17} One of the most direct types of prompts documented in our previous work was parental requests that the child light a cigarette in his or her own mouth, and then give it to the parent. Parental prompting behaviors, occurring primarily in Latinos, appeared to be a culturally specific risk factor for smoking acquisition among Latino youth. For example, almost 20% of 7th grade Mexican and Mexican-American children with parents who smoked reported smoking-related prompting, in contrast with only 3% for other ethnic groups.^{7,14} Our previous work was conducted with relatively small numbers of youth and considered only 3 parental prompts. In addition, parental smoking itself is a consistent predictor of youth smoking,^{18–21} and the contribution of prompting to adolescent smoking over

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and beyond parental smoking status has not been explored.

Only one other study to our knowledge has investigated parental behaviors that may prompt youth smoking. A recent qualitative study, which involved 178 focus groups conducted by Mermelstein and colleagues,²² provides some support for our findings that parental influences, other than parental smoking, are important correlates of youth smoking. Latino youth were likely to report that their parents communicated contradictory messages regarding smoking. These youth perceived smoking to be disrespectful toward the family and reported they would likely receive harsh punishment from parents should they smoke. On the other hand, they reported that family members and parents "recruited" them into smoking by offering them their first cigarette, sending them to the store to buy cigarettes, and asking them to light cigarettes for them.

Other culturally specific factors that might be associated with smoking acquisition among Latino youth are acculturation and familism. The influence of acculturation on smoking, as reported in other studies, has been inconsistent. According to the data from the National Hispanic Health and Nutrition Examination Survey (NHANES), acculturation to US society may be one of the factors related to an increasing rate of smoking behaviors, especially among Hispanic females, specifically, Latinas.²³ However, Deosaransingh and colleagues reported that among Latinas, a higher level of acculturation was associated with a *lower* prevalence of smoking. An explanation for the discrepant findings may be that the NHANES survey involved a national sample that included multiple Latino subgroups, while the population studied by Deosaransingh and colleagues included a small sample of comparatively homogeneous Latinos in a small border region of southern California.²⁴

Familism refers to shared core values and beliefs that place high value on fam-

ily unity, including use of relatives as behavioral and attitudinal referents.²⁵ The high level of familism in Latino cultures suggests that family influences on smoking may be particularly strong in this ethnic group.²⁶⁻²⁷

The purpose of this cross-sectional study was to extend our previous work in the area of parental prompting with a large, cross-sectional sample of adolescents, many of whom are Latino. More specifically, the study aimed to: 1) document the prevalence of a number of parental prompts and compare the prevalence of prompting for Latino vs non-Latino adolescents; and 2) examine correlates of adolescent smoking, including parental prompts, parental smoking, acculturation, and familism.

METHODS

Setting and Recruitment

The study was conducted in 10 middle/junior high schools in the Southbay area of San Diego County, California. This lower- to lower-middle-income area has a high concentration of Latino families. The Sweetwater Union High School District (SUHSD) was used as the site for recruiting 7th and 8th grade students. Overall, 63% of the students in the SUHSD are Latino, with student population at individual schools ranging from 42% to 80% Latino. In contrast, a neighboring school district is 36% Latino, and statewide, the Latino population comprises 41% of the enrolled students.²⁸

The Human Subjects Committee at San Diego State University approved the study, including an active consent recruitment procedure. Only middle school students who submitted signed parental informed consent forms and who signed their own assent participated in the study.

All 7th and 8th grade students in the entire district were targeted as participants in the survey. One to 2 weeks before surveying began, 10,500 recruit-

ment letters and consent forms, in both English and Spanish, were distributed to all students in the 3 junior high and 7 middle schools in the district. Designated teachers for each school were paid approximately \$500 as an incentive to encourage their students to return completed consent forms, whether the form indicated agreement or refusal by the parent to participate. A total of 5,908 (56% of those distributed) signed parent consent forms were returned. Of the returned signed consent forms, 4,228 (72%) gave permission for the child to participate in the study, and 1,680 (28%) denied permission. On the day the survey was administered, 326 (8%) of students with permission to take the survey were absent, and 278 (7%) refused to take the survey. A total of 3,624 students (35% of those targeted) participated in the study by completing a paper-and-pencil survey during class time.

Survey Measures

A student paper-and-pencil prompting survey was developed based on a survey used in our previous studies.^{7,17} Focus groups with 7th and 8th grade students and their smoking parents not participating in the larger study were also conducted to develop and refine prompting measures. In addition, standard tobacco use measures were incorporated²⁹ and several sociodemographic characteristics were measured using items from previous, related studies.^{7,17}

Parental Prompting Variables

Seven specific parental prompts were conceptualized, operationalized, and investigated in the present study:

- Parent asks child to empty ashtrays: this prompt provides the child with direct access to cigarettes (those in the ashtray that were partially smoked).
- Parent asks child to bring the parent his/her cigarettes: this prompt provides the child contact with cigarettes, and the opportunity to obtain cigarettes for experimentation.
- Parent gives child gifts (ie, pro-

motional gear) from the tobacco industry: this prompt aids the marketing efforts of the tobacco industry by using the child as a “billboard” and communicates parental acceptance of tobacco use.

- Parent asks child to buy his/her cigarettes: this prompt provides contact with cigarettes and may demonstrate the ease with which cigarettes can be purchased commercially.

- Parent asks child to light his/her cigarette with a match or lighter: this prompt exposes the child directly to cigarette smoke, involves the child in the act of smoking, and may facilitate careful observation of how the parent lights the cigarette.

- Parent asks child to put cigarette in the child’s own mouth, light it, and pass it to the parent: this prompt may lead the child to inhale cigarette smoke, encourages the child to rehearse smoking behaviors, and may imply parental acceptance of the child smoking.

- Parent asks child to smoke with parent on occasion: this is the most direct prompt and may demonstrate parental acceptance of the child smoking.

Survey items asked how often the student’s mother or father prompted them to perform each of the 7 behaviors, with response options including “never,” “a few times,” or “often.” Because of the skewed distributions of the responses, dichotomous variables were computed for the 7 prompts. Students responding “never” received a code of 0; those responding with “a few times” or “often” received a code of 1. Father- and mother-initiated prompts were combined such that a prompt from either would indicate the presence of a parental prompt.

Smoking Variables

The primary smoking variable was “past 30-day smoking,” a dichotomous variable based on a quantitative item that asked about the number of cigarettes typically smoked per day during the past 30 days. Students who indicat-

ed they had not smoked in the past 30 days were classified as non-smokers (coded as 0); those who reported any smoking were classified as past-month smokers (coded as a 1). An additional lifetime smoking variable, “ever smoked,” was a dichotomous variable with never smokers (ie, those who had never tried smoking, not even a puff) coded as 0, and ever smokers coded as 1. The school district involved in the study would not allow collection of a biological sample to validate self-reported smoking. However, our previous research and that of others with similar populations suggest that adolescents’ self-reports of smoking are generally accurate when demand characteristics are minimized and appropriate use of research data is assured.^{17,30–32}

Parental smoking status, as reported by the student, was a dichotomous variable based on items in which the student indicated who smoked in his/her house. Parental smoking was coded as a 1 if the student indicated that his/her mother, father, stepmother, or stepfather smoked. If the student indicated that none of these individuals smoked, a code of 0 was given.

Sociodemographic Variables

Status as a Latino (coded as a 1) vs non-Latino (coded as a 0) was based on an item that asked the student to identify his/her ethnicity. Students who selected the response option “Hispanic/Mexican-American,” or wrote in that they were any mix that included Hispanic, Latino, or Mexican were coded as Latino. Students’ gender was coded as 1 (male) or 2 (female).

A familism measure was based on 5 items. Four items were taken from an existing measure developed by Buriel and Rivera, which has been used with Anglo and Mexican-American adolescents,²⁶ and one item was developed by the present investigators based on focus group results. Each item was asked with response options ranging from 1 (strongly disagree) to 4 (strongly agree).

Responses were summed and divided by 5 to compute a mean score. Scores potentially ranged from 1 to 4 with higher scores indicating higher familism. The measure of internal consistency (Cronbach alpha) was .60, considerably lower than that reported by Buriel and Rivera (.74–.82) in their sample of 166 southern California high school students. Discrepancies between the reliability coefficients in the present study and the Buriel and Rivera study may be due to time differences, since their study was published in 1980. The addition of the fifth item did not weaken the internal consistency and in fact, without the item, the Cronbach alpha was .55.

A language-based acculturation measure for Latino participants only was computed as a mean of responses to 10 items developed by Marín and colleagues.²⁵ Scores ranged from 1 to 5, with higher scores indicating greater acculturation to US culture. The internal reliability (Cronbach alpha) was .91. Because the scale was specific to acculturation among Latinos, no acculturation score was computed for non-Latinos.

Statistical Analysis

Descriptive statistics were used to characterize student-reported prevalence of past-month smoking and the 7 parental prompts. Chi-square analysis was used to test for differences between groups (ie, Latino vs non-Latino students, boys vs girls) in past-month smoking prevalence and the percentage of students reporting prompting. Latinos were compared to all other groups combined because past study results indicated parental prompting was a risk factor specifically in the Latino culture. Univariate analyses (ie, chi-square tests) also were used to test for differences in smoking prevalence between prompted vs non-prompted students. Multiple logistic regression was performed to investigate the association of adolescent smoking with ethnicity, gender, familism, and parental prompts. Because of

Table 1. Prevalence of parental prompts among students with at least one smoking parent by ethnicity

Prompt	% Reporting		χ^2	P
	Latinos (N=710)	Non-Latinos (N=416)		
Empty ashtrays	44.7	53.7	8.52	.004
Bring cigarettes	57.6	61.7	1.80	.179
Receive tobacco gear	5.1	7.5	2.68	.102
Buy cigarettes	10.3	3.8	14.87	.000
Light cigarettes	15.9	11.8	3.56	.059
Light cigs. in mouth	3.1	2.4	.47	.495
Smoke with parent	1.7	1.0	1.00	.316

the likely intercorrelation among parental prompting variables, sociodemographic variables were first forced into the logistic model, and then parental prompts were allowed to enter in a forward stepwise fashion. Because smoking-related prompts are expected to occur almost exclusively among adolescents with a smoking parent, most univariate and multivariate analysis were conducted for students with at least one smoking parent in the home.

Participant Characteristics

A total of 3,624 students (35% of those targeted) participated in the study by completing prompting surveys. Surveys from 25 students were not usable, resulting in 3,599 surveys. Fifty-six percent of the final sample was female. Fifty-four percent were 7th graders; 46% were 8th graders. The median age was 14 years. The majority of participants were Latino (64%, N=2,315), followed by non-Latino Whites (16%), Asian/Pacific Islander (11%), African Americans (4%), and 5% classified themselves as other. This is similar to the district overall, with 65% Latinos, 17% non-Latino Whites, 13% Asian/Pacific Islander, 5% African Americans, and 1% other.²⁸ Eighty-three percent were born in the United States, 10% were born in Mexico, and 7% elsewhere. Familism scores were generally high with a mean of 3.16 (SD=.43) on a 4-point scale; Latinos had higher familism scores (3.18) than non-Latinos (3.12) ($t[3594]=-4.32$,

$P<.000$). Acculturation level among Latino students was moderately high, with a mean of 3.29 (SD=.73) on a 5-point scale.

RESULTS

Prevalence of Smoking

Of all 3,599 students, 30.6% reported ever smoking. Thirty-two percent of Latino students reported ever smoking, a slightly higher rate than the 27% for non-Latino students ($\chi^2(1)=9.69$, $P=.002$). The prevalence of ever smoking did not differ for boys and girls (32% and 30%, respectively). Past 30-day smoking was reported by 6.8% of students overall, an identical rate for boys and girls. Among Latino students, 7.6% reported smoking in the past 30 days, compared to 5.3% among the non-Latino students, a statistically significant difference ($\chi^2(1)=7.05$, $P=.008$). Thirty-one percent of all students (N=1,127) reported living with at least one parent (biological or step-parent) who smoked; this percent was consistent for boys, girls, Latinos, and non-Latinos.

Prevalence of Parental Prompting

Among all students, 30% reported receiving at least one parental prompt. Because prompting probably occurs exclusively within families with a smoking parent, number of prompts was exam-

ined among students with at least one smoking parent. Sixty-eight percent reported receiving at least one prompt. Multiple types of prompts were common: 29% reported 2 prompts, 12% reported 3 prompts, and almost 6% reported 4 or more prompts. Again for all students, the prevalence of the 7 specific prompts ranged from 1% (parent requests child to smoke with him/her) to 24% (parent requests child to bring his/her cigarettes). Because smoking-related prompts are expected to occur almost exclusively among adolescents with a smoking parent, prompting was examined for students with at least one smoking parent in the home. Among this group, the most frequent prompts were requests to bring the parent his/her cigarettes (59%), and requests to empty ashtrays (48%). Requests to light the parent's cigarette with a match or lighter was reported by approximately 14% of students. Requests by smoking parents to buy cigarettes, and having received gifts with tobacco logos from parents were reported by 8% and 6% of students, respectively. The final 2 prompts, requests to start the parent's cigarette in the child's own mouth, and requests to smoke with the parent were infrequent, with about 3% and 1.4% of students reporting such prompts, respectively.

Table 1 presents the prevalence of the seven specific parental prompts for students with a smoking parent by ethnicity. Latino adolescents were more likely than non-Latino adolescents to report that a parent had asked them to buy cigarettes, and light cigarettes with a match or lighter (marginally significant). On the other hand, non-Latino adolescents were more likely to report parental requests to empty ashtrays than Latino adolescents.

Analyses of gender differences (Table 2) showed that girls were more likely than boys to receive requests to bring the parent his/her cigarettes. Boys were more likely than girls to receive tobacco gear from a parent, and to receive requests to light the parent's cigarette (marginally significant).

Table 2. Prevalence of parental prompts among students with at least one smoking parent by gender

Prompt	% Reporting		χ^2	P
	Males (N=479)	Females (N=648)		
Empty ashtray	47.8	48.2	.02	.890
Bring cigarettes	54.1	62.8	8.76	.003
Receive tobacco gear	8.8	3.9	11.87	.001
Buy cigarettes	8.6	7.4	.50	.478
Light cigarettes	16.8	12.7	3.69	.055
Light cigs. in mouth	2.3	3.2	.86	.355
Smoke with parent	1.9	1.1	1.28	.257

Univariate Analysis of the Association of Parental Prompting with Adolescent Smoking

The association of prompting with adolescent smoking was examined using univariate tests (ie, not controlling for other variables). Among students with at least one smoking parent, the past-month smoking rate was 11.7% for

those students receiving *any* of the 7 parental prompts, but was only 4.5% for those not prompted ($\chi^2(1)=15.09, P<.001$). Latino students reported more than double the prevalence of smoking (13.2%) when prompted by their parents than when not prompted (6.0%) ($\chi^2(1)=8.39, P=.004$). Non-Latino students reported more than 5 times the prevalence of smoking when

prompted (9.3%) than when not prompted (1.6%) ($\chi^2(1)=7.98, P=.005$). An additional analysis revealed an association between number of prompts and smoking. Past 30-day smokers had, on average, 2.1 prompts compared to 1.3 prompts for non-smokers ($t(1123)=-5.82, P=.000$).

Table 3 presents univariate tests of the association of the 7 specific parental prompts with adolescent past-30 day smoking among adolescents with at least one smoking parent. All parental prompts, with the exception of receiving tobacco gear, were significantly associated with a higher prevalence of student smoking across ethnicity. Requests to smoke with the parent and light the parent's cigarette in the child's own mouth were associated with particularly increased rates of smoking. Higher smoking prevalence was associated with the 6 prompts in Latino students, although among non-Latinos, the associations were only significant for bringing cigarettes and lighting cigarettes. Despite the lack of statistical significance for non-Latinos, a consistent pattern was evident, in which prompted students were more likely to have smoked in the past 30 days.

Table 3. Prevalence of past 30-day smoking among students with at least one smoking parent by presence or absence of prompts

Prompt	Past-Month Smoking Prevalence		χ^2	P
	Prompt Absent	Prompt Present		
Overall (N=1,126)				
Empty ashtrays	6.8	12.0	8.91	.003
Bring cigarettes	5.9	11.8	11.13	.001
Receive tobacco gear	9.3	10.6	.11	.734
Buy cigarettes	8.6	19.1	10.61	.001
Light cigarettes	7.4	21.6	32.64	.000
Light cigs. in mouth*	8.8	31.3	18.25	.000
Smoke with parent*	9.0	37.5	14.93	.002
Latinos (N=710)				
Empty ashtrays	7.6	14.8	9.39	.002
Bring cigarettes	7.3	13.5	6.81	.009
Receive tobacco gear*	11.0	8.3	.24	.788
Buy cigarettes	9.7	20.5	7.92	.005
Light cigarettes	8.7	22.1	17.55	.000
Light cigs.in mouth*	10.1	36.4	15.14	.001
Smoke with parent*	10.4	41.7	11.91	.006
Non-Latinos (N=416)				
Empty ashtrays	5.2	8.1	1.31	.252
Bring cigarettes	3.1	9.0	5.36	.021
Receive tobacco gear	6.5	13.3	2.00	.147
Buy cigarettes*	6.8	12.5	.77	.309
Light cigarettes*	5.2	20.4	15.26	.001
Light cigs. in mouth*	6.7	20.0	2.65	.150
Smoke with parent*	6.8	25.0	2.01	.252

* Due to low Ns and small expected values, Fisher's exact test used.

Parental smoking, student acculturation level, and familism also were examined as univariate correlates of past-30 day smoking. Parental smoking was significantly associated with adolescent past-30 day smoking. Students who lived with non-smoking parents reported a past 30-day smoking prevalence of 5.6% compared to 9.4% among students who lived with a parent who smoked ($\chi^2(1)=17.55, P<.001$). Acculturation level among Latino students was not related to smoking at the univariate level. On the other hand, familism was related ($t(1123)=4.21, P<.001$), such that adolescent past-month smokers had a lower mean familism score (3.00) than non-smokers (3.17). The association of familism with smoking held for both Latinos ($t(708)=3.60, P<.001$) and non-Latinos ($t(413)=2.77, P=.006$).

Table 4. Results of stepwise logistic regression analysis predicting past 30-day smoking from ethnicity, gender, familism, and parental prompts among all students with at least one smoking parent

Variable	OR	95% CI	P
Latino ethnicity*	1.72	1.09, 2.73	.020
Gender*	.69	.45, 1.04	.080
Familism*	.34	.21, .54	.000
Light cigarettes	3.31	2.09, 5.23	.000

* These variables forced into model at first step. N=1,125.

Multivariate Analysis of the Association of Parental Prompting with Adolescent Smoking

Multivariate logistic analysis was performed to assess the association of specific prompts with adolescent smoking. Because prompting probably occurs exclusively within families with a smoking parent, these analyses were conducted among students with at least one smoking parent. Ethnicity, gender, and familism also were included as correlates in the multivariate analyses; acculturation was not included because of its lack of association in the univariate analysis. Table 4 presents results of a logistic regression analysis forcing ethnicity, gender, and familism into the model to control for their effects, and then allowing prompting variables to step into the model. Latino ethnicity, relatively low familism, and having received requests from parents to light cigarettes with a match or lighter were significantly associated with increased risk of past-30 day smoking.

The multivariate analyses were repeated for Latinos and non-Latinos separately. As shown in Table 5, among Latino students, low familism scores and 3 prompts were related to student smoking. Requests to empty ashtrays, light cigarettes with a match or lighter, and to light cigarettes in the child's own mouth were significantly related to increased odds of past-month smoking.

Table 5. Results of stepwise logistic regression analysis predicting past 30-day smoking from gender, familism, and parental prompts among Latino and non-Latino students with at least one smoking parent

Variable	OR	95% CI	P
Latinos (N=710)			
Gender*	.66	.42, 1.09	.106
Familism*	.37	.21, .64	.000
Empty ashtrays	1.73	1.02, 2.91	.041
Light cigarettes	1.87	1.00, 3.49	.048
Light cigs. in mouth	2.83	1.01, 7.91	.048
Non-Latinos (N=415)			
Gender*	.69	.32, 1.53	.364
Familism*	.28	.12, .66	.004
Light cigarettes	5.09	2.15, 12.03	.000

* These variables forced into model at first step.

For non-Latinos, only one parental prompt, requests to light the parent's cigarette with a match or lighter, was related to smoking. As with Latinos, familism was protective for non-Latinos.

For the purpose of comparison with the Moreno et al study,⁷ we conducted a logistic regression analysis for Latinos with "ever smoked" as the dependent variable. The Moreno et al study of 3 prompts reported that parental requests for the child to light cigarettes in his/her mouth was a strong predictor of ever smoking, although requests to light parents' cigarettes with a match or lighter and requests to buy the parent cigarettes were not independent significant predictors. In the present analysis with 7 prompts, only one prompt, requests to light parents' cigarettes with a match or lighter, was significantly associated with ever smoking in Latino adolescents (adjusted OR=3.01).

DISCUSSION

This cross-sectional study of a large number of adolescents documented the prevalence of several parental behaviors thought to potentially prompt smoking among youth, particularly Latino youth. The most prevalent prompts were requests to bring the parent his/her cigarettes, and requests to empty ashtrays.

Requests to light the parent's cigarette with a match or lighter, requests to buy cigarettes for the parent, and parents giving tobacco gear as gifts were relatively less prevalent. Requests to start the parent's cigarette in the child's own mouth and to smoke with the parent were of low prevalence (1.4%–3%). The prevalence for most prompting behaviors was not significantly different between Latinos and the non-Latinos. Differences in the prevalence of a few prompts by ethnicity and gender underscore the potential complexity of the phenomenon, although there was no group that was consistently at-risk across prompting behaviors. For example, Latino adolescents were asked more often than non-Latinos to light and buy parents' cigarettes, while non-Latinos were requested more often than Latinos to empty ashtrays. Girls were more likely than boys to be asked to bring the parent his/her cigarettes, while boys were more likely to receive tobacco gear and be requested to light parents' cigarettes. These results are at odds with our previous findings that showed Latinos were consistently at risk for prompting compared to non-Latinos.⁷

An unexpected finding was the low prevalence of some of the prompts among Latino students with parents who smoked, compared with our results reported in Moreno et al.⁷ In the pre-

vious study, 47% of the Latino youth reported lighting cigarettes for their parents (vs 16% in this study), 36% reported buying cigarettes for parents (vs 10% in this study) and 18% reported lighting their parents' cigarettes in their mouths (vs 3% in this study). One possible explanation for these discrepancies might be related to the lower participation rate in the present study that may have resulted in biased estimates (ie, underestimates) of prompting. The Moreno et al study, using a passive consent procedure, reported a 98% response rate to the student survey, whereas the present study with an active consent procedure achieved a 35% participation rate. Nonetheless, analyses, conducted for the present study to assess the prompting differences among classrooms divided into 3 equal-sized groups based on low, medium, and high participation rates, showed no association between participation rates and parental prompting levels (data not shown). Another possible explanation for the discrepancy could be due to the substantial amount of tobacco-related education and secular changes that have occurred during the 6–7 year span between the 2 studies. The amount of tobacco control activities in California and their effects on adult behavior have been widely reported.²⁹ The present study had a large sample size that appears to be representative of the school district's middle school population, lending credence to the prevalence estimates of prompting.

As we have discussed previously, the majority of smoking parents forbid their children to smoke,^{7,17} and we believe most parents do not intentionally encourage their children to smoke. Prompting behaviors probably reflect an inadvertent, rather than a deliberate, influence on children's smoking behavior.⁷ It may be that parental prompting behaviors are simply conveniences for the parent (eg, asking a child to bring, buy, or light cigarettes) or merely thought of as a household chore (eg, cleaning ashtrays). Even invitations to smoke with

the parent may be thought of as a deterrent, meant to teach the child how unpleasant smoking is. However, the contradictory messages about smoking that some parents communicate to their children may serve to recruit youth into smoking, whether inadvertent or not.²²

Aside from the prevalence of prompting, the more important question is the degree to which prompts are associated with adolescent smoking. Exposure to prompts placed both Latino and non-Latino students at greater risk of smoking. In univariate analyses, 6 of the 7 parental prompting behaviors examined were significantly associated with a higher risk of adolescent past-month smoking; only receiving tobacco gear was not related. The pattern was seen among all adolescents with a smoking parent, and for Latinos with a smoking parent. Among non-Latinos, only 2 prompts (requests to bring cigarettes and light cigarettes) reached statistical significance, although there was a general pattern of associations that paralleled those seen overall and among Latinos. Other important univariate correlates of adolescent smoking were parent's smoking status and familism, while acculturation was not related.

Multivariate analyses of students with at least one smoking parent indicated that prompts, particularly parental requests to light a cigarette with a match or lighter, was a significant predictor. This prompt was associated with smoking in the combined sample, and for Latinos and non-Latinos separately. Latino adolescents may be influenced by a greater number of parental prompts than non-Latinos, as 3 prompts were associated with smoking in Latinos, but only one prompt was significant for non-Latinos. In addition, these multivariate analyses suggest that being Latino is a risk factor for adolescent smoking, and that familism is a protective factor for both Latino and non-Latino adolescents.

A final regression was conducted with lifetime smoking to replicate find-

ings from our previous study.⁷ Generally, the present findings did not replicate Moreno et al, although differences in the set of predictor variables between the 2 studies, including the number of prompts included, make interpretation of differences difficult. Although somewhat ambiguous, overall results from the present study suggest that parental requests that the child light the parent's cigarettes with a match or lighter is probably a more important risk factor than other prompts.

A strong and consistent correlate of youth smoking across ethnic groups and analyses was familism. Even after adjusting for parent's smoking status and prompting, a high value placed on family unity and cohesiveness protected the student from being a smoker. The strength of this finding, in both Latinos and non-Latinos, indicates need for further investigation. On the other hand, acculturation had no significant associations with youth smoking. The literature on acculturation and youth smoking is inconsistent,^{8,24,33,34} with methodological differences, or differences in the Latino subgroups being studied, possibly accounting for part of the discrepancy among studies. Additional studies are needed to better understand that association.

The cross-sectional nature of the study does not allow interpretations of causality between parental prompts or familism and adolescent smoking. It is possible that parental prompts increase the probability that the student will experiment with cigarettes; however, an alternate explanation is that parents prompt their children only when they know they are already smoking. Prospective studies are needed to establish whether parental prompts are precursors to the acquisition of smoking. Another limitation of the present study was the low response rate, due to the active consent procedure, which might make the sample not representative of the overall student population. However, ethnic composition of the sample was similar to that of the district overall.

Applying current findings to improve smoking prevention interventions may be challenging. Teaching children to respond differently to parental requests is a very sensitive matter in the Latino culture. Countering a direct parental request in a culturally appropriate manner is likely to be difficult for Latino youth.⁷ A potentially promising strategy for reducing parental prompting of smoking is to include direct parental education components in a smoking prevention program, along with acceptable, culturally appropriate, refusal skills training for adolescents.³⁵⁻³⁶

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