

# Use of Smokeless Tobacco Among Male Adolescents: Concurrent and Prospective Relationships<sup>1</sup>

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**ABSTRACT**—The concurrent and prospective correlates of the use of smokeless tobacco among 846 adolescent males were examined. There were 6- and 12-month follow-ups to the initial questionnaire. Substantial levels of tobacco, alcohol, and marijuana use were reported, with 21% reporting use of more than one drug in the last week. Daily smokeless tobacco users were more likely to initiate use of cigarettes, marijuana, and alcohol than were other males. In addition, the “having used” smokeless tobacco variable was related to increased use of cigarettes, marijuana, and alcohol at follow-up. Discriminant analysis of concurrent data identified peer use of smokeless tobacco and experience with cigarette smoking as the primary discriminating factors between males who had tried it and those who had not. Peer use of smokeless tobacco also discriminated between daily users and those who had tried it but had not gone on to become daily users. Thus peer influence seems to be an important factor not just in trial of smokeless tobacco but also in the development of a daily use pattern. Beginning use of smokeless tobacco was related to offers to use alcohol, cigarettes, and marijuana; peer use was the best predictor of continued daily use.—NCI Monogr 8:49–55, 1989.

Considerable evidence has been accumulated on the significant health consequences of regular use of SLT (1, 2). In addition, significant increases in its use by adolescent males have recently been reported (3, 4). Unfortunately, little is known about the psychosocial factors associated with the use of the substance by adolescents. In this study, the replicability of findings from our prior work on SLT issues was tested. Previously, we (5) found that SLT use among adolescent males was related to the concurrent use of alcohol, marijuana, and cigarettes and that it represented a prospective risk factor for the onset or increased use of those substances. Moreover, peer use of SLT was identified as the primary factor discriminating between male adoles-

cent users and nonusers. Factors such as having tried smoking, the intention to smoke in the future, and peer use discriminated male adolescents who tried SLT and those who did not. The prospective predictors of the onset and continued use of SLT were also examined. Each of these issues is reexamined with a different subject sample of similar ages. Convergence between the 2 studies would enhance confidence in the validity of the findings and move us closer to an understanding of the factors and processes associated with the use of SLT.

## METHODS

Participants in this study were 1,676 students from two school districts in Oregon. There were 459 male and 417 female seventh-grade students from six middle schools, and 387 male and 413 female ninth- and tenth-grade students from three high schools. As part of the evaluation of a smoking prevention program in these schools, the students completed a questionnaire. They were reassessed 6 months later and again at 12 months. The initial assessment was completed during the fall of 1981.

The questionnaire was administered in health classes. Each student's parents were sent a postage-paid consent letter, which they were to return if they did not want their child assessed; only 1.4% did so. All students were requested to provide breath and saliva samples and were informed that the samples would be analyzed to determine their smoking status. This physiologic sample procedure was expected to increase the accuracy of self-reported smoking (6, 7). The students were informed that their participation was voluntary and they could decline to participate at any time; 2.6% of the students declined.

The questions concerned subject use of cigarettes, SLT, marijuana, and alcohol, and about offers the student may have received to use cigarettes, marijuana, and alcohol. Three items pertained to SLT use: “I have tried chewing tobacco or snuff once or twice.” “Are you a daily user of chewing tobacco or snuff?” “How many of your friends use chewing tobacco?” Additional items asked about subject intention to smoke in the future and about parental, sibling, and peer smoking behavior. One item asked if the subject had ever tried smoking cigarettes. We developed a scale of smoking experience by counting the affirmative responses to 10 items, ranging from “I have felt like trying a cigarette,” through “I have had one or more puffs on a cigarette,” to “I smoke but no more than one cigarette a week.”

Although this questionnaire did not inquire about the form of SLT used, our subsequent surveys established that the predominant form in these schools has been moist snuff

**ABBREVIATION:** SLT = smokeless tobacco.

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(1). A small amount (i.e., a dip or pinch) of moist snuff is typically placed between the gums and the mucosa of the lower lip or cheek.

## RESULTS

### Prevalence and Stability of Smokeless Tobacco Use

Sixty-eight percent of the males and 18.5% of the females in the sample reported having used SLT in their lifetime. Similarly, 14.0% of the males and 0.7% of the females indicated that they used it daily. The extremely low female daily use rate suggests that SLT does not represent a serious substance abuse problem for female adolescents at this time. Consequently, such data for females will not be examined in great detail here.

In light of reports that smoking by adolescent males may be lower than for females (8), we determined if this is offset by increased use of SLT among male adolescents. A chi-square analysis of the relationship between gender and daily use of any tobacco product indicated that a significantly higher proportion of males report daily use of some form of tobacco product than do females,  $\chi^2 (1; n = 1,625) = 30.2, P < .0001, \phi = .14$ . Of the girls participating, 8.2%

reported daily smoking, an additional 0.4% indicated daily SLT use, and 0.4% reported daily use of both substances. Thus 9.0% of the females reported tobacco use. Of the 18.4% males reporting daily tobacco use, 4.4% indicated daily cigarette use, an additional 12.6% acknowledged daily use of SLT, and 1.3% indicated both. A similar pattern emerges when those who smoke less frequently are included in this analysis. For the females, 14.6% reported smoking in the last week and/or daily use of SLT; for males, it was 21.6%. This difference was also significant,  $\chi^2 (1; n = 1,625) = 13.1, P < .0003, \phi = .09$ . The number of daily users of SLT was nearly three times that of daily smokers among the males.

Data related to the stability of SLT use among males are displayed by grade level in table 1. Among the participants who reported at initial assessment that they had never tried it, at 12-month follow-up 25.4% indicated that they had tried it and 1.5% acknowledged daily use. All those who became daily users were seventh graders. Among the students who reported having tried SLT at initial assessment, 7.1% acknowledged that they were daily users at the 6-month follow-up. At the 12-month follow-up, 9.4% had become daily users. Regarding the stability of use among this group, 70.9% continued use daily at the

TABLE 1.—Stability of SLT use by adolescent males at 6- and 12-month follow-up

Follow-up	SLT use category at initial assessment	Percent of students in each use category					No. of students/grade
		Initial grade level	Never tried	Tried, not daily user	Daily user	Percent of grade total	
At 6 mo	Never tried	7	70.1	28.4	1.5	37.2	134
		9	80.4	19.6	0.0	29.3	56
		10	91.7	8.3	0.0	27.6	24
		All	75.2	23.8	0.9	33.5	214
	Tried, not daily user	7	—	92.2	7.8	53.6	193
		9	—	95.0	5.0	52.9	101
		10	—	90.9	9.1	50.6	44
		All	—	92.9	7.1	53.0	338
	Daily user	7	—	42.4	57.6	9.2	33
		9	—	23.5	76.5	17.8	34
		10	—	15.8	84.2	21.8	19
		All	—	29.1	70.9	13.5	86
	Percent of grade total	7	26.1	63.9	10.0	100.0	360
		9	23.6	60.2	16.2	100.0	191
		10	25.3	51.7	23.0	100.0	87
		All	25.2	61.1	13.6	100.0	638
At 12 mo	Never tried	7	71.7	26.0	2.4	39.0	127
		9	76.0	24.0	0.0	27.8	50
		10	75.0	25.0	0.0	34.3	24
		All	73.1	25.4	1.5	34.9	201
	Tried, not daily user	7	—	88.2	11.8	52.1	170
		9	—	91.8	8.2	54.4	98
		10	—	100.0	0.0	42.9	30
		All	—	90.6	9.4	51.7	298
	Daily user	7	—	31.0	69.0	8.9	29
		9	—	15.6	84.4	17.8	32
		10	—	25.0	75.0	22.9	16
		All	—	23.4	76.6	13.4	77
	Percent of grade total	7	27.9	58.9	13.2	100.0	326
		9	21.1	59.5	19.4	100.0	180
		10	25.7	57.2	17.1	100.0	70
		All	25.5	58.9	15.6	100.0	576

6-month follow-up, and 76.6% reported continued daily use at the 12-month follow-up. The proportion of daily users of SLT who continue to use it seems high. In comparison, the proportion of male daily cigarette users in this study who reported continued daily smoking at the 12-month follow-up was only 30%. This difference in proportion of daily SLT users versus daily cigarette smokers is significant,  $z = 3.7$ ,  $P < .002$ . On the basis of these data, once an adolescent male has established a pattern of daily SLT use, he is 2.5 times more likely to continue than is a daily cigarette smoker.

#### **Concurrent Correlates of Smokeless Tobacco Use Among Males**

In this study, factors that differentiate SLT user groups were identified by stepwise discriminant analysis methods. In the discriminant analyses, variables were entered in the discriminant function only if they resulted in a significant increase in the generalized distance measure of group separation, Rao's  $V$ . In these analyses, each of the variables entered also accounted for a significant change in Rao's  $V$  even after all the other variables in the function had been entered. That is, each variable included in the discriminant function made a unique contribution.

Some of the variables had highly skewed distributions (e.g., number of cigarettes smoked in the last week). A separate set of discriminant analyses was performed with the use of the log transform of these variables. The results of these analyses did not substantively differ from the analyses of the untransformed variables. Consequently, the untransformed analyses are presented below.

#### **Factors Related to Trying Smokeless Tobacco**

To develop effective intervention methods to prevent the onset of SLT use among adolescent males, researchers must determine which factors influence the youths to try it. Table 2 presents the results of a stepwise discriminant analysis to distinguish between the males in this sample who tried SLT and those who did not. The analysis indicated that considerable discriminating power was present in the variables utilized. The Wilks'  $\lambda$  of .78 was significant ( $P < .0001$ ), and the shared or explained variance was 22%. The derived function correctly classified 74% of all subjects. The standardized discriminant function coefficients are listed to indicate the relative weights assigned to variables in defining the discriminant function. These standardized coefficients are similar to standardized regression coefficients in linear regression analysis. Each of the variables accounted for a significant change in Rao's  $V$ , even when entered last in the function. The structure coefficients are also shown because they are the correlations between the predictor variables and subject discriminant scores. Variables with high structure coefficients discriminate well between subject groups. Clear interpretation is facilitated by the listing of only structure coefficients greater than .30. Based on the structure coefficients in this analysis, "experience with smoking" and "number of friends using SLT" are important discriminators between those who try it and those who do not.

Additional discriminant analyses were performed for determination of whether the discriminating variables for seventh graders differed from those for ninth and tenth graders.

For both groups of students, the variables with the highest structure coefficients were: "number of friends using SLT," "level of smoking experience," and "tried smoking."

#### **Factors Discriminating Triers From Daily Users**

Beyond preventing the onset or trying of SLT, preventing adolescents who have tried the substance from continuing its use is also a relevant issue for those involved in cessation programs. A discriminant analysis determined which concurrent variables distinguished between male triers who have gone on to become daily users and those triers who have not become daily users. The analysis yielded a significant Wilks'  $\lambda$  of .75,  $P < .0001$  (table 2). The discriminant function explained 25% of the variance and correctly classified 83% of the subjects. The structure coefficients clearly indicate that number of friends using SLT is related to whether these adolescents go on to become daily users or not. The use of alcohol also appears to be a notable predictor.

Separate analyses were done for the seventh graders and the ninth and tenth graders, so that any differences in the discriminating factors could be determined. In both groups, the primary discriminator was number of friends using SLT.

#### **Factors Discriminating Daily Users From Never Users**

An analysis to differentiate daily users from those who have never tried might be expected to underscore their differences more clearly. As shown in table 2, the measured variables did discriminate well and accounted for 61% of the variance with a significant Wilks'  $\lambda$  of .39. The function correctly classified 90% of the subjects. Again, the structure coefficients indicate that number of friends using SLT was the primary predictor.

#### **Prospective Correlates of Smokeless Tobacco Use Among Males**

##### **Predictors of Smokeless Tobacco Onset**

The ability to predict the onset of SLT use among males who have never used the substance may be valuable in our targeting "at-risk" individuals for selective intervention. Discriminant analysis of the 6-month data yielded no significant predictors. The analysis of the 12-month data showed significant univariate prediction (Rao's  $V > 4.0$ ,  $P < .05$ ) for: number of offers of alcohol, offers of cigarettes, offers of marijuana, number of alcohol uses, and number of cigarette offers accepted. When number of offers of alcohol was entered first in the function, none of the other variables resulted in significant additional change in Rao's  $V$ , and they were not added to the equation. With only the offers of alcohol in the function, the significant Wilks'  $\lambda$  was .96,  $P < .003$ . The relationship of offers to use of these substances and subsequent use of SLT was consistent, although the explained variance was small, 4.3%.

##### **Predictors of Change in Daily Use of Smokeless Tobacco**

Central to any SLT cessation effort is a greater understanding of the factors related to change in use patterns. The predictors of change in the pattern of daily use were examined with discriminant analysis so those factors could be identified that differentiated males who remained daily users at follow-up from those who did not. Of the

TABLE 2.—Concurrent discriminant analyses of SLT use among adolescent males

Predictor variables	Tried chewing tobacco or snuff <sup>a</sup>		Daily users vs. triers <sup>b</sup>		Daily users vs. never used <sup>c</sup>	
	Standardized coefficients	Structure coefficients	Standardized coefficients	Structure coefficients	Standardized coefficients	Structure coefficients
No. of friends using SLT	.52	.66	.86	.93	.76	.84
Tried smoking	.34	.67	—	—	—	.31
Level of smoking experience	.46	.72	.26	.34	.44	.49
Intention to smoke	—	.35	—	—	—	—
No. of cigarettes last wk	—	—	—	—	—	—
No. of cigarettes yesterday	—	—	—	—	—	—
No. of cigarette offers last wk	-.18	—	—	—	-.22	—
No. of cigarette offers accepted last wk	—	—	—	—	—	—
Best friend smokes	—	—	—	—	—	—
No. of friends smokers	—	.37	—	—	—	.33
Father smokes	—	—	—	—	—	—
Mother smokes	—	—	—	—	—	—
No. of brothers smoke	—	—	—	—	—	—
No. of sisters smoke	—	—	—	—	—	—
No. of marijuana uses last wk	—	—	—	—	—	—
Use marijuana daily	—	—	—	—	—	—
No. of marijuana offers last wk	—	.32	—	.32	—	—
No. of alcohol uses last wk	—	.43	.22	.48	.18	.49
Use alcohol daily	—	—	—	—	—	—
No. of alcohol offers last wk	.29	.48	—	.38	.22	.48
Summary statistics						
Total Wilks' $\lambda$	.78		.75		.39	
Significance of $\lambda$	$P < .0001$		$P < .0001$		$P < .0001$	
Canonical correlation	.47		.50		.78	
Explained variance	.22		.25		.61	
Group 1 centroid	.36		1.13		1.86	
Group 2 centroid	-.77		-.29		-.82	
Percent correct classification						
Overall	74		83		90	
Group 1	85		53		82	
Group 2	51		91		94	

<sup>a</sup>In group 1, 560 students tried, 260 did not (group 2).

<sup>b</sup>In group 1, 115 students were daily users, 455 were triers (group 2).

<sup>c</sup>In group 1, 115 students were daily users, 260 had never used (group 2).

115 males who reported daily use at initial assessment, 86 were reassessed at 6-month follow-up and 77 were reassessed at 12-month follow-up. For maintenance of a better subject-to-variable ratio in the discriminant analysis, the number of variables was reduced to seven. Several composite variables were formed by standardization of item values and summation of component items. Marijuana and alcohol use composites combined number of uses in the last week with daily use. A family smoking composite combined items on mother, father, sister, and brother smoking. A peer smoking composite included items on best friend smokes and the number of friends who smoke. A cigarette use in the last week composite combined cigarettes smoked yesterday and those in the last week. The remaining questionnaire items used in this analysis were the number of friends who use SLT, tried smoking, and had the intention to smoke.

The discriminant analysis of the 6-month follow-up data yielded a significant Wilks'  $\lambda$  of .85 ( $P < .002$ ) that explained about 15% of the variance and classified 77% correctly. The structure coefficients indicated that the "friends

use of smokeless tobacco" was strongly related to continued daily use (.66) and peer smoking was negatively related (-.36). For the 12-month data, the Wilks'  $\lambda$  was .91,  $P < .01$ . Nine percent of the variance was explained, and 82% of the cases were correctly classified. Only the number of friends using SLT and the marijuana use composite were related to the function. Peer influence seems to be important in maintaining a pattern of daily SLT use.

#### Multiple Drug Use Among Male Adolescents

In an earlier study, we (5) found evidence of significant concurrent use of drugs among male adolescents and particularly among daily users of snuff and chewing tobacco. Among the male adolescents in this study, 10.5% reported smoking cigarettes in the last week, 14.4% indicated marijuana use in the last week, and 37.0% responded that they had consumed alcohol in the last week. Forty-five percent of the respondents reported using at least one of these four substances in the last week. Forty-seven percent of those reporting some use of these substances indicated that they used more than one. Among those who reported daily use

of SLT, 80.0% reported use of at least one additional substance. Specifically, use in the last week was reported by 20% for cigarettes, 35% for marijuana, and 73.9% for alcohol. The relationships between daily SLT use and any use of cigarettes, marijuana, and alcohol in the last week were examined by formation of  $2 \times 2$  contingency tables and calculation of  $\chi^2$  and  $\phi$  statistics. All three  $\chi^2$  were significant at the  $P < .001$  level. The  $\phi$  coefficients were: .13, .24, and .31 for cigarette, marijuana, and alcohol use, respectively. In addition, subject use of cigarettes, marijuana, and alcohol were significantly interrelated. The number of cigarettes in the last week was significantly correlated ( $P < .001$ ) with the number of marijuana ( $r=.48$ ) and alcohol ( $r=.27$ ) uses in the last week. Similarly, use of marijuana in the last week was significantly related to alcohol consumption ( $r=.49$ ).

#### Smokeless Tobacco Use As A Risk Factor For Other Drug Use

Male adolescents who report that they have used or tried SLT appear to be at increased risk to begin use of cigarettes, alcohol, and marijuana. Table 3 shows that SLT users who did not smoke at baseline were significantly more likely to report smoking at 1-year follow-up (5.8%) than those who did not use either substance at baseline (0.5%). Similarly, subjects who reported no use of alcohol in the last week at baseline were more likely to report use of alcohol at 1-year follow-up if they had reported use of SLT at initial assessment (29.0% vs. 11.6%). For marijuana, a significantly greater proportion of the baseline SLT users who had not reported use of marijuana at initial assessment reported it in the last week at 1-year follow-up (12.4% vs. 2.0%). The strength of the relationship between new use of cigarettes, alcohol, and marijuana at follow-up and having used SLT at baseline was indicated by  $\phi$  coefficients of .13, .21, and .18, respectively.

Having used SLT was also related to increased use of cigarettes, alcohol, and marijuana at follow-up for all males, regardless of their previous status for these substances. Baseline SLT users were significantly more likely to have increased their use of cigarettes, alcohol, and marijuana at 1-year follow-up than were males who had not used snuff or chewing tobacco (table 3). For increased use of cigarettes, alcohol, and marijuana, the  $\phi$  coefficients were .12, .15, and .20, respectively.

## DISCUSSION

Although it may be true that the rate of cigarette smoking among adolescent females is higher than that of males, the findings of this study reveal that the combined use of cigarettes and SLT may be substantially higher for male adolescents. The extent to which these SLT users later take up cigarette smoking is a critical issue, and additional longitudinal studies are needed to examine it. This "gateway" transition from SLT use to cigarette smoking may be occurring with surprising regularity as adolescent males become older and face the possible social consequences of chewing tobacco and snuff use (e.g., dating-age females who do not find this behavior attractive). Given the increased restrictions on smoking in public places, the prevalence of the opposite transition (i.e., from cigarette smoking to SLT use) may be an issue of public concern as well.

The analysis of the concurrent data replicates findings of the earlier study (5). Both analyses indicate that peer use of SLT and experience with cigarette smoking were the primary discriminators between male adolescents who had tried snuff and chewing tobacco and those who had not. Similarly, results of both studies indicated that peer use of SLT discriminated between male daily users and those who had never tried it. This replication of the importance of peer use supports the adoption of social skill training to resist peer pressure as an effective intervention strategy. Although some differences did occur in secondary factors across grade level, the major discriminating factors appear to be consistent. The current study provides evidence that peer use of SLT is the primary factor distinguishing between male adolescents who have become daily users and those who have tried it but have not gone on to become daily users. It seems that peer influence is important not just at onset but in the development of a daily use pattern.

The prospective relationships to the onset of SLT use were relatively small. However, one interesting pattern that is consistent with a social pressure model did emerge in the 12-month follow-up analysis. Offers of alcohol, cigarettes, and marijuana were all significant predictors of the onset of SLT use. Additional research including the assessment of offers is needed if investigators are to examine more fully the role of social pressure in the onset process.

TABLE 3.—Percentage of male users and nonusers of SLT and other substances

SLT use at baseline	Use (last wk) at 1-yr follow-up, nonusers at baseline			Increased use (last wk) at 1-yr follow-up, all students		
	Cigarettes	Alcohol	Marijuana	Cigarettes	Alcohol	Marijuana
User, %	5.8	29.0	12.4	6.8	25.4	14.7
Nonuser, %	0.5	11.6	2.0	1.5	12.5	2.0
$\chi^2$ <sup>a</sup>	8.3 <sup>b</sup>	16.2 <sup>c</sup>	16.0 <sup>d</sup>	7.07 <sup>b</sup>	13.1 <sup>c</sup>	21.7 <sup>d</sup>
$\phi$ coefficient	.13	.21	.18	.12	.15	.20

<sup>a</sup>Degree of freedom = 1.

<sup>b</sup> $P < .01$ .

<sup>c</sup> $P < .001$ .

<sup>d</sup> $P < .0001$ .

It appears that once male adolescents establish a daily pattern of SLT use, most of them continue to use it daily. In this study, 76.6% of the daily users still reported daily use at 12-month follow-up. My associates and I (5) found 71% of the youths were still using it daily at a 9-month follow-up. How this pattern relates to the finding that only 30% of the daily cigarette smokers in this sample reported continued daily smoking at 12-month follow-up is not clear. One explanation is that the daily SLT users in this study may be more addicted than the daily smokers. Another is that a more consistent use pattern is possible for those who use snuff or chew tobacco because they can be used less obtrusively within school and home environments. In addition, social pressure from peers and adults to stop SLT use may be lessened. Clearly, replication by more direct measurement methods (e.g., self-monitoring and direct observation) are needed for careful and rigorous examination of the self-quitting process. Also examined in the current study were changes in habits among daily SLT users, and again, peer use was the best predictor of continued daily use at 6- and 12-month follow-up. This finding is consistent with a social influence model.

Parent and sibling use of SLT was not related to either the beginning or continuation of its use by the participants in this study or the previous one (5). This is an interesting finding because investigators (9-11) who conducted a number of prospective studies of adolescent smoking have also reported no relationships between these family modeling factors and adolescent smoking. Additional research specifically directed at the role of family members in the onset and maintenance of adolescent SLT use would help to clarify these relationships.

In both the current study and Ary et al. (5), tobacco, alcohol, and marijuana use appear common in adolescent males, with 42%-45% reporting use of at least one of these substances in the last week. Among those reporting some use, 43%-45% stated they had used more than one substance in the last week. Multiple substance use seems particularly high among daily SLT users, with 80%-83% reporting one or more other substances. In both studies, an unusually high percentage of daily SLT users indicated drinking alcohol in the last week (73%-74%). A closer examination of adolescent drug use patterns, with particular attention to the situations, antecedent events, and the consequences of use for each substance would be helpful in the development of efficacious interventions.

Data from this study support an earlier finding (5) that SLT use was identified as a risk factor for the use of other drugs. Those who use SLT were more likely to *begin* use of cigarettes, marijuana, and alcohol than were other subjects; having used SLT was related to *increased* use of cigarettes, marijuana, and alcohol among adolescent males. Although the consistency of these findings does not establish a causal relationship between SLT use and that of these other substances, it does point out the need for a more rigorous effort by researchers to examine these relationships. Longitudinal multimethod research might include in-depth interviews, direct observation, a series of telephone interviews over time to monitor change, and self-monitoring of use including corroboration by significant others.

The limitations of the current study should be noted. The "generalizability" of the findings may be restricted to this geographic region of the country. In addition, the conclusions are based on self-report questionnaire measures, the validity of which may be a concern, despite the inclusion of physiologic pipeline procedures. The "true" use rates for these substances may be a bit higher than reported here, due to the voluntary nature of student participation in the study. Although the decline rate was only 4%, those who did not participate may be more likely to use drugs (12). The implications of this type of bias on the generalizability of the correlational relationships explored here are not clear.

Future research efforts in this area might emphasize multimethod longitudinal research with special attention to the gateway transition process from use of SLT to that of cigarettes, marijuana, and alcohol. The development of effective prevention measures might include the integration of SLT components into existing school-based smoking prevention curricula (13), the involvement of dentists and physicians in office-based interventions, and the creation of cessation clinics modeled after those used with smoking cessation.

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