

## ORIGINAL ARTICLE

# Perceived Legitimacy of Parental Authority and Tobacco and Alcohol Use During Early Adolescence

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**Purpose:** To assess the likelihood that young adolescents perceive that parents have legitimate authority regarding cigarette smoking and alcohol consumption; to test whether perceived parental authority predicts adolescents' use of tobacco and alcohol, and to test the association between parenting style and the legitimacy of parental authority regarding tobacco and alcohol.

**Methods:** Survey data were obtained in 1997 from 1220 sixth and eighth grade adolescents enrolled in a central North Carolina school district. The sample comprised 72.3% of 1687 eligible students and 92.3% of 1321 students with parental consent; 83.8% of the sample was European-American and 16.2% African-American. Students completed self-report questionnaires administered in classrooms. Logistic regression models were used to test the study hypotheses.

**Results:** Adolescents were significantly more likely to legitimize parental authority regarding tobacco and alcohol than parental authority regarding conventional or contemporary issues. Failure to legitimize parental authority was associated with significantly greater odds of current smoking (OR = 4.06;  $p < .000$ ) or drinking (OR = 3.81;  $p < .000$ ) among all respondents, and significantly greater odds of intending to smoke (OR = 3.38;  $p < .000$ ) or drink (OR = 3.38;  $p < .000$ ) among abstinent respondents. Adolescents' perceptions of parental authority regarding tobacco and alcohol varied significantly by parenting style.

**Conclusions:** The results discredit the myth that adolescents uniformly disregard parental values and rules regarding tobacco and alcohol. The results also showed

that general parenting style covaried strongly with adolescents' perceptions of parental authority regarding substance use. Additional research is warranted to test for causal relations between general parenting style, adolescents' perceptions of parental authority regarding substance use, and adolescents' risk of substance use. © Society for Adolescent Medicine, 2002

KEY WORDS:

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Within the field of prevention there is growing interest in engaging parents to reduce youth involvement in substance use [1,2]. The assertion that parents can influence adolescents' likelihood of substance use is inconsistent with the well-documented mainstream view [3,4] that adolescence is a period of turmoil in the parent-child relationship, a period during which parental influence inevitably wanes. What accounts for this inconsistency? One factor is that until the 1980s, research on adolescent development was generally based on a conflict-oriented model [5]. Studies completed during this era focused on generational disparity in values, decline in parental influence, and conflict between parents and adolescents [5]. This research fostered a negative stereotype of the parent-adolescent relationship. Subsequent to a shift in research emphasis during the 1980s [5], leading developmental psychologists examined, and currently espouse, an alternative and more positive perspective: Most adolescents experience continuity in their relationship with parents and

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continued acceptance of parental values [5–8]. Thus, although the stereotypic view of adolescence assumes a decline in parental influence, current research on adolescent development indicates that it is common for parents to remain influential [3–8].

Of interest in the present study was an improved understanding of the conditions under which parents maintain influence regarding tobacco and alcohol use by their adolescent offspring. Past studies on this topic have examined how parenting variables, most notably parental monitoring, parental communication, and parenting style, are associated with adolescents' substance use [9–14]. Although there is clear utility in identifying parental attributes that strengthen their capacity to influence adolescents, theoretical models of the parent-adolescent relationship [15,16] indicate that examining adolescents' role in the influence process could also be informative. The present study focused on one attribute of adolescents, perceived legitimacy of parental authority, and its relation to adolescents' use of tobacco and alcohol.

The concept of perceived legitimacy of authority was introduced in Baumrind's [15] early theoretical work on parenting and child development. Baumrind noted that when a parent attempts to control the behavior of a child, the child experiences the competing psychological motivations of compliance and resistance. During childhood, the asymmetrical balance of power between adult and child most often results in compliance by the child. During adolescence, the motivation to resist becomes an increasingly important counterforce to compliance because adolescents are engaged in the stage-appropriate drive towards independence. Thus motivated, adolescents evaluate and make judgments regarding the legitimacy of parental authority within specific behavioral domains. Baumrind theorized that when the expression of parental power is viewed as arbitrary and when parental influence attempts pertain to behaviors that adolescents associate with emancipation from parental authority, parental norms and standards are unlikely to be perceived as legitimate.

The centrality of perceived legitimacy to understanding adolescent risk behavior is clearly evident in more recent theoretical work by Darling and Steinberg [16]. Their comprehensive model of parenting and adolescent outcomes posits that "openness to parental influence" is a primary explanatory factor in predicting adolescent outcomes. This factor is conceptually analogous to Baumrind's concept of perceived legitimacy of parental authority. Both factors indicate the receptivity of adolescents to paren-

tal influence attempts. Thus, past [15] and current [16] theoretical models of the parent-adolescent relationship suggest that perceived legitimacy of parental authority merits investigation as a factor associated with adolescent risk-taking. The present study was the first to apply this concept in large sample survey research where respondents are in early adolescence and the focus was on parental authority regarding tobacco and alcohol use.

## *Study Questions*

### **Study Question 1**

What proportion of adolescents view as legitimate parental authority specifically regarding cigarette smoking and alcohol consumption? Although contemporary evidence [3–8] indicates that parental influence generally continues during adolescence, it is also clear that developing areas of personal autonomy and authority is a central aspect of adolescent development [17]. Thus, parental influence becomes increasingly differentiated and domain-specific during adolescence [18,19]. For example, adolescents have been found to be generally accepting of parental influence regarding moral and conventional issues (e.g., honesty, helpfulness, involvement in educational and religious institutions), but generally unaccepting of parental influence over contemporary issues (e.g., choices about friends, clothing, and music) [18]. The present study examined where on the continuum of perceived parental authority adolescents placed parental authority regarding cigarette smoking and alcohol consumption.

### **Study Question 2**

Are adolescents who affirm parental authority regarding cigarette smoking and alcohol consumption less likely than those who deny parental authority to report current use and intention to use these substances? In a sample of 139 9th to 12th grade students, Nucci et al. [20] found that compared with students who reported low drug use, those who reported high drug use were more likely to view themselves as the only authority regarding drug use. The present study complements this work by examining tobacco and alcohol use instead of illicit drug use and by studying a sample that is younger (sixth and eighth grade) and therefore in transition to adolescence. Studying this transition period is important because it coincides with a rapid rise in the prevalence of tobacco and alcohol use [21] and with

a decline in parental authority among youth who are at risk for this outcome. In the present study, it was expected that perceived legitimacy of parental authority would have a significant inverse association with reported levels of tobacco and alcohol use.

### Study Question 3

Which parents are viewed by young adolescents as having legitimate authority regarding tobacco and alcohol use? Parenting style is a function of two behavioral dimensions: parental demandingness and parental responsiveness [6,15,22–26]. The authoritative parenting style is highly demanding and highly responsive. In contrast with styles that are low on one or both dimensions (i.e., the permissive, authoritarian, and indifferent styles), authoritative parenting is characterized by discipline that is reasoned, consistent, and democratic, and by a mutual respect and reciprocity between parent and child. According to Baumrind, [15] authoritative parents exercise firm discipline while also supporting adolescents increasing need for autonomy. Firm discipline promotes compliance with parental expectations and autonomy support reduces adolescents' need for emancipation from parental authority. Thus, in the present study, adolescents from authoritative families were expected to be more likely to affirm parental authority regarding cigarette smoking and alcohol consumption than adolescents whose parents practiced alternative parenting styles.

## Methods

### Sample and Procedure

The study sample was drawn in 1997 from the sixth and eighth grade enrollment rosters of four middle schools that comprise a county school district in central North Carolina. The ethnic composition within the school district was 81.6% European-American, 15.9% African-American, and 2.5% other ethnic groups, including Hispanic, Asian, and American Indian. Because the analysis strategy for the present study included using ethnicity as a covariate, ethnic groups with low representation were excluded from the present analysis, leaving 1687 sixth and eighth grade students eligible for inclusion.

The study protocol, approved by an Institutional Review Board at the University of North Carolina, required that signed parental consent be obtained. Subsequent to duplicate mailings, 1321 parents (78.3%) gave permission; the remaining 366 parents

either did not respond to the mailing or actively refused to allow participation. Of the 1321 students who had parent permission, 82 (6.2%) were absent from the classroom during data collection. During classroom administration of surveys, a transcript was read to inform students that they could choose not to participate in the survey, skip any questions they did not want to answer, and stop participating at any time. Subsequent to hearing the transcript, 19 students (1.4%) declined to participate or provided incomplete data. The survey items were read aloud by graduate students who were trained to standardize the pace and modulation of their reading, and to standardize their responses to predicted questions from students. Teachers were in the classroom during administration but stayed at their desks to protect the confidentiality of student responses.

A total of 1220 adolescents provided complete survey data; thus, 92.3% of the 1321 students with parent permission and 72.3% of the 1687 students eligible for inclusion completed the survey. The demographic composition of the sample at completion was 83.8% and 16.2% European-American and African-American, respectively; 50.2% and 49.8% male and female, respectively; and 50.7% and 49.3% sixth and eighth grade, respectively (ages 11 to 13 years).

### Measures

*Perceived legitimacy of parental authority.* Adolescents' perceptions of parental authority were assessed within three domains, each having two indicators: (a) substance use (cigarette smoking, alcohol consumption); (b) contemporary issues (music, clothing); and (c) conventional issues (religion, education). Adolescents were asked, "Do you think your parents should have a say about whether or not you smoke cigarettes? (drink alcohol?)" "Do you think your parents should have a say about the kind of music you listen to? (clothes you wear?)" "Do you think your parents should have a say about whether you attend church or other religious services? (how much studying you do for school?)" The 4-point response scale was "definitely yes; probably yes; probably not; definitely not." For the regression analyses, responses were dichotomized to indicate affirmation (coded 0) versus denial (coded 1) of parental authority.

*Current use.* Current use of tobacco and alcohol was indicated by any use in the past 30 days: "Think about the last 30 days. On how many days did you

smoke part or all of a cigarette? (have part or all of a drink with alcohol?).” Adolescents reporting any use in the past 30 days were coded positive for current use.

*Intention to use.* Adolescents’ intentions regarding tobacco or alcohol use were assessed using a standard item: “Do you think you will be smoking cigarettes one year from now? (drinking alcohol one year from now?).” Response choices were “definitely yes; probably yes; probably not; definitely not.” Consistent with extant studies on intention and other indicators of susceptibility among abstinent youth [27–29], respondents with firm statements against use (i.e., “definitely not”) were coded as having no intention to use tobacco or alcohol in the next year.

*Parenting style.* An index developed and previously validated [30] was used to measure parenting style. Adolescents reported their perceptions of parental responsiveness and demandingness and these reports were used to define four widely studied modes of parenting [6,15,22–26]: authoritative parenting (high on both dimensions); authoritarian parenting (high on demandingness; low on responsiveness); permissive parenting (high on responsiveness; low on demandingness); indifferent parenting (low on both dimensions). The items, scales, and psychometric properties of this index are described in detail elsewhere [30].

*Covariates.* Demographic factors included as covariates in the regression analyses were gender (female coded 0; male coded 1), grade (sixth grade coded 0; eighth grade coded 1), and ethnicity (European-American coded 0; African-American coded 1). Also included as covariates were modeling of tobacco and alcohol use by best friends and parents.

## Analyses

Study question 1: Descriptive statistics (proportions) were calculated to indicate how many adolescents within each grade, gender, and ethnic subgroup perceived that parents had legitimate authority regarding contemporary, conventional, and substance use issues. Study question 2: Four logistic regression models were run whereby each dichotomous dependent variable (current use of tobacco or alcohol, intention to use tobacco or alcohol) was regressed on covariates (gender, ethnicity, grade, best friends’ use, parental use) and perceived legitimacy of parental authority for tobacco or alcohol use. The results

indicate the odds of current use or intended use of tobacco or alcohol associated with denial of parental authority regarding tobacco or alcohol. Study question 3: Two logistic regression models were run whereby perceived legitimacy of parental authority for tobacco or alcohol was regressed on parenting style. In these analyses, authoritative parenting was treated as the referent category. The odds ratios indicate the likelihood that adolescents from authoritarian, permissive, and indifferent families denied parental authority regarding substance use when compared with adolescents from authoritative families.

## Results

The proportion of adolescents who affirmed parental authority regarding tobacco and alcohol use was high. In the total sample, about 80% of adolescents reported that their parents should have a say about whether they smoke cigarettes or consume drinks with alcohol (Table 1). As indicated by the confidence intervals in Table 1, the level of affirmation was relatively constant across gender, ethnicity, and grade subgroups.

Table 1 includes a comparison of the level of affirmation across the three domains examined in this study (conventional, contemporary, and substance use). Significantly greater proportions of adolescents affirmed parental authority regarding conventional issues than affirmed parental authority regarding contemporary issues. Whereas 68% and 55% affirmed parental authority for education and religion, respectively, only 19% and 26% believed that parents should have a say regarding music and clothing, respectively. A significantly greater proportion of adolescents affirmed parental authority regarding tobacco and alcohol use than affirmed parental authority regarding either the conventional or contemporary issues. Thus, for the majority of young adolescents in this sample, use of tobacco and alcohol was not associated with any apparent need for emancipation from parental authority.

The regression analyses (Tables 2 and 3) revealed a strong inverse association between perceived legitimacy of parental authority and indicators of substance use. Adolescents who denied the legitimacy of parental authority regarding smoking were four times as likely to report current smoking (OR = 4.06;  $p < .000$ ) as those who affirmed parental authority (Table 2). Among adolescents who had never tried smoking, those who denied the legitimacy of paren-

**Table 1.** Domain-specific Affirmation of Parental Authority by Adolescents' Grade, Gender, and Ethnicity

	<i>n</i>	% affirm (CI) <sup>a</sup>					
		Authority-Conventional Issues		Authority-Contemporary Issues		Authority-Substance Use Issues	
		Education	Religion	Music	Clothing	Tobacco	Alcohol
Grade 6	618						
E-A <sup>b</sup> females	232	68.3 (62.3;74.2)	56.8 (50.4;63.1)	20.4 (15.2;25.5)	30.4 (24.4;36.3)	81.3 (76.2;86.3)	81.9 (76.2;86.3)
A-A <sup>b</sup> females	72	76.1 (66.2;85.9)	63.2 (52.1;74.3)	16.9 (8.2;25.5)	31.4 (20.6;42.1)	89.9 (82.9;96.8)	85.5 (77.3;93.6)
E-A males	266	66.0 (60.3;71.6)	58.1 (52.1;64.0)	27.1 (21.7;32.4)	28.3 (22.8;33.7)	77.7 (72.6;82.7)	82.0 (77.3;86.6)
A-A males	48	67.4 (54.1;80.6)	61.4 (47.6;75.1)	15.2 (05.0;25.3)	15.9 (05.5;26.2)	82.2 (71.3;93.0)	86.7 (77.0;96.3)
Grade 8	602						
E-A females	270	68.0 (62.4;73.5)	49.0 (43.0;54.9)	15.3 (11.0;19.5)	22.7 (17.7;27.6)	79.8 (75.0;84.5)	83.6 (79.1;88.0)
A-A females	34	76.5 (62.2;90.7)	64.7 (48.6;80.7)	05.9 (02.0;13.8)	23.5 (09.2;37.3)	61.8 (45.4;78.1)	84.8 (72.7;96.8)
E-A males	254	66.0 (60.1;71.8)	51.2 (45.0;57.3)	18.3 (13.5;23.0)	24.9 (19.5;30.2)	74.2 (68.8;79.5)	78.4 (73.3;83.4)
A-A males	44	72.1 (58.8;85.3)	57.1 (42.4;71.7)	02.3 (02.1;06.7)	19.0 (07.4;30.5)	74.4 (61.5;87.2)	73.8 (60.8;86.7)
Total sample	1220	68.0 (65.3;70.6)	55.0 (52.2;57.7)	18.8 (16.6;20.9)	26.0 (23.5;28.4)	78.4 (76.0;80.7)	81.7 (79.5;83.8)

<sup>a</sup> CI indicates 95% confidence interval.

<sup>b</sup> E-A = European-American; A-A = African-American.

tal authority regarding smoking were over three times as likely to report intention to smoke in the next year (OR = 3.38;  $p < .000$ ). Importantly, these associations were found after controlling for variation associated with exposure to modeling of smoking by parents and best friends.

The results for alcohol use were similar (Table 3). Adolescents who denied the legitimacy of parental authority regarding alcohol were nearly four times as likely to report current drinking (OR = 3.81;  $p < .000$ ) than those who affirmed parental authority. Among adolescents who had never had a drink with alcohol, those who denied the legitimacy of parental authority regarding alcohol were three times as likely to report intention to drink alcohol in the next year (OR = 3.38;  $p < .000$ ). The inclusion of parental and best friend modeling

as covariates in these models indicates that the legitimacy of parental authority regarding alcohol use had an independent association with adolescents' current and intended use of alcohol.

The final analysis examined the association between parenting style and perceived parental authority regarding substance use (Table 4). The regression models indicated a very strong association between parenting style and the odds that parental authority was denied. When compared with adolescents exposed to authoritative parenting, adolescents exposed to permissive, authoritarian, and indifferent parenting were from 2.5 to 7.6 times as likely to deny parental authority regarding cigarette smoking and from 1.8 to 5.9 times as likely to deny parental authority regarding alcohol use.

**Table 2.** Adolescents' Current Smoking and Intention to Smoke Regressed on Perceived Legitimacy of Parental Authority Regarding Smoking

Predictor Variables <sup>a</sup>	Current Smoking ( <i>n</i> = 1220)		Intention to Smoke ( <i>n</i> = 908) <sup>d</sup>	
	OR <sup>b</sup> (CI) <sup>c</sup>	<i>p</i> value	OR (CI)	<i>p</i> value
Gender	1.60 (1.16;2.21)	.009	1.17 (0.84;1.63)	.329
Ethnicity	0.71 (0.91;2.18)	.113	1.51 (0.99;2.31)	.052
Grade	1.24 (0.95;1.60)	.103	1.17 (0.83;1.65)	.367
Best friends tried smoking	3.20 (2.65;3.86)	.000	1.53 (1.31;1.78)	.000
Parents' smoking status	1.32 (0.95;1.84)	.103	1.22 (0.87;1.71)	.227
Perceived authority—smoking	4.06 (2.87;5.75)	.000	3.38 (2.18;5.22)	.000

<sup>a</sup> Variable coding for the regression analyses: gender (0/female; 1/male); ethnicity (0/European-American; 1/African-American); grade (0/6th grade; 1/8th grade); best friends tried smoking (0 to 3); parental smoking status (0/neither parent; 1/at least one parent); perceived parental authority—smoking (0/affirm; 1/denied).

<sup>b</sup> OR indicates odds of smoking in past 30 days or odds of intending to smoke in the next year.

<sup>c</sup> CI indicates 95% confidence interval.

<sup>d</sup> The model for intention to smoke excludes the 312 adolescents who reported current smoking.

**Table 3.** Adolescents' Current Alcohol Use and Intention to Use Alcohol Regressed on Perceived Legitimacy of Parental Authority Regarding Alcohol Use

Predictor variables <sup>a</sup>	Current Alcohol Use ( <i>n</i> = 1220)		Intention to Use Alcohol ( <i>n</i> = 959) <sup>d</sup>	
	OR <sup>b</sup> CI <sup>c</sup>	<i>p</i> value	OR CI	<i>p</i> value
Gender	1.68 (1.17;2.27)	.003	1.63 (1.19;2.24)	.002
Ethnicity	0.96 (0.66;1.62)	.875	(0.73;1.79)	.536
Grade	1.51 (1.13;1.99)	.004	1.04 (0.74;1.45)	.804
Best friends tried alcohol	2.12 (1.81;2.48)	.000	1.83 (1.58;2.13)	.000
Parents' use of alcohol	2.13 (1.53;2.97)	.000	1.73 (1.24;2.41)	.001
Perceived authority—alcohol	3.81 (2.63;5.50)	.000	3.05 (1.92;4.87)	.000

<sup>a</sup> Variable coding for the regression analyses: gender (0/female; 1/male); ethnicity (0/European-American; 1/African-American); grade (0/6th grade; 1/8th grade); best friends who have drunk alcohol (0 to 3); parental alcohol use (0/infrequent; 1/frequent); perceived parental authority—alcohol (0/affirm; 1/denied).

<sup>b</sup> OR indicates odds of drinking alcohol in past 30 days or odds of intending to drink alcohol in the next year.

<sup>c</sup> CI indicates 95% confidence interval.

<sup>d</sup> The model for intention to drink alcohol excludes the 261 adolescents who reported current alcohol use.

## Discussion

In response to the growing interest in engaging parents in substance use prevention, this study investigated the role of perceived legitimacy of parental authority as an attribute of adolescents with implications for preventing tobacco and alcohol use. The aims of this study were to assess the likelihood that young adolescents would legitimize parental authority regarding cigarette smoking and alcohol consumption, and to assess the association between the legitimacy of parental authority and adolescents' risk of tobacco and alcohol use. Also of interest was measuring the association between general parenting style and the likelihood that adolescents would deny parental authority regarding tobacco and alcohol use.

The majority of young adolescents in the sample perceived legitimate parental authority regarding cigarette smoking and alcohol consumption. Although these results may appear inconsistent with the popular strife-ridden perspective regarding adolescence, they are highly consistent with the pro-social perspective on adolescence espoused by contemporary developmental psychologists [3–8]. This

finding underscores the need for public health intervention that discredits the myth of adolescent disregard for parental influence attempts. Without such action, this myth is free to function as a self-fulfilling prophecy, whereby parents relinquish real authority and their receptive adolescents lose whatever protective effect the exercise parental authority could provide.

The converse of the first finding is also noteworthy: approximately 1 in 5 respondents denied parental authority regarding tobacco and alcohol use. The magnitude of this result is particularly worrisome given the age range of the study sample (ages 11 to 13 years). While on the verge of adolescence, one in five respondents believed that their parents should not have a say about use of tobacco or alcohol. These young people had a fourfold increase in the likelihood of current smoking when compared with peers who affirmed parental authority regarding smoking. Similarly, those who denied parental authority were 3.8 times as likely to report current use of alcohol. These results were adjusted for exposure to tobacco or alcohol use by best friends and parents, which are known to be strong predictors of substance use

**Table 4.** Perceived Legitimacy of Parental Authority Regarding Tobacco or Alcohol Use Regressed on General Parenting Style

General Parenting Style	Perceived Authority—Tobacco		Perceived Authority—Alcohol	
	OR <sup>a</sup> (CI) <sup>b</sup>	<i>p</i> value	OR (CI)	<i>p</i> value
Authoritative	1.0		1.0	
Permissive	2.45 (1.11;05.43)	.027	1.77 (0.75;04.21)	.189
Authoritarian	4.20 (2.01;08.71)	.000	2.50 (01.12;05.55)	.024
Indifferent	7.57 (4.29;13.37)	.000	5.98 (3.37;10.61)	.000

<sup>a</sup> OR indicates odds that adolescents perceived that parents did not have legitimate authority.

<sup>b</sup> CI indicates 95% confidence interval.

intentions and behaviors [31]. Although the associative design of the present study precludes causal inference, these findings do indicate that about 20% of early adolescents exhibit the combination of low receptivity to parental influence regarding substance use and current use of tobacco or alcohol. This finding gives rise to two plausible hypotheses, each worthy of additional research: (a) adolescents' perceptions of the domain-specific legitimacy of parental authority is a causal antecedent of adolescent risk-taking within that domain; (b) failure to legitimize parental authority during early adolescence predisposes young people not only to early initiation of use (as suggested by the present study) but also to habitual use in later adolescence.

This study also found a strong association between general parenting style and perceived parental authority regarding tobacco and alcohol use. When compared with adolescents from authoritative families, respondents whose parents were reported to be relatively unresponsive and undemanding were six to seven times more likely to deny parental authority regarding substance use. Thus, parenting that was highly responsive and highly demanding was associated with offspring who acknowledged parents as a source of influence regarding tobacco and alcohol use. These results are consistent with the theoretical models developed by Baumrind [15] and Darling and Steinberg [16], which posit that authoritative parenting is associated with a generally lower need for emancipation from parental authority during adolescence and hence, lower resistance to parental influence. By practicing fair, consistent, and reasoned rule-setting, allowing verbal give and take, and exercising parental power firmly but judiciously, authoritative parents socialize their children to be receptive to age-appropriate levels of parental authority during adolescence.

This finding supports the recommendation that programs aiming to engage parents as agents of substance use prevention go beyond training in domain-specific parenting practices (e.g., training parents to limit access to tobacco or monitor use of alcohol by peers) to include training in authoritative parenting. This recommendation is consistent with the study data and with the theoretical model developed by Darling and Steinberg [16]. In their model, parenting style is a contextual variable; one that determines the social climate within the family and thereby moderates the influence of domain-specific parenting practices. Darling and Steinberg [16] argue that "only by maintaining the distinction between parenting style and parenting practice can research-

ers address questions concerning socialization processes." The results of the present study suggest that this argument is equally applicable to the development and evaluation of public health interventions that aim to involve parents in substance use prevention.

Given the cross-sectional design of this study, the results do not demonstrate causal relations between perceived parental authority and the likelihood of tobacco and alcohol use or between parenting style and the likelihood that adolescents will affirm parental authority for tobacco and alcohol use. Although causal relations are plausible, a longitudinal study of youth who are abstinent at baseline is needed to test these relations. A longitudinal study would also allow a test of the mediation effect implied by theoretical models of parental authority and adolescent outcomes [15,16]. Specifically, with longitudinal data one could test whether perceived legitimacy of parental authority mediates the relationship between general parenting style and adolescent substance use. There is good reason to pursue this line of investigation. The available strategies for preventing tobacco and alcohol use by adolescents have had limited success [21] and there is currently strong interest in understanding the potential of parents to improve our capacity to prevent substance use.

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