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The relative roles of types of extracurricular activity on smoking and drinking initiation among tweens

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Abstract

Objective—Youth involvement in extracurricular activities may help prevent smoking and drinking initiation. However, the relative roles of types of extracurricular activity on these risks are unclear. Therefore, we examined the association between substance use and participation in team sports with a coach, other sports without a coach, music, school clubs, and other clubs in a nationally representative sample of US tweens.

Methods—We conducted telephone surveys with 6,522 U.S. students (ages 10-14) in 2003. We asked participants if they had ever tried smoking or drinking and about their participation in extracurricular activities. We used sample weighting to produce response estimates that were representative of the population of adolescents aged 10-14 years at the time of data collection. Logistic regression models that adjusted for appropriate sampling weights using Jackknife variance estimation tested associations with trying smoking and drinking, controlling for sociodemographics, child and parent characteristics, friend/sibling/parent substance use, and media use.

Results—A little over half of the students reported participating in team sports with a coach (55.5%) and without a coach (55.4%) a few times per week or more. Most had minimal to no

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participation in school clubs (74.2%), however most reported being involved in other clubs (85.8%). A little less than half participated in music, choir, dance, and/or band lessons. Over half of participants involved in religious activity did those activities a few times per week or more. In the multiple regression analysis, team sport participation with a coach was the only extracurricular activity associated with lower risk of trying smoking (adjusted OR = 0.68, 95% C.I. 0.49, 0.96) compared to none or minimal participation. Participating in other clubs was the only extracurricular activity associated with lower risk of trying drinking (adjusted OR = 0.56, 95% C.I. 0.32, 0.99) compared to none or minimal participation.

Conclusions—Type of extracurricular involvement may be associated with risk of youth smoking and drinking initiation. Future research should seek to better understand the underlying reasons behind these differences.

Keywords

Smoking; Drinking; Extracurriculars; Children; Sports; Coaching

INTRODUCTION

Children in their pre-adolescent years, tweens, are at a crossroads in terms of what they do during their time out of school. Whether or not tweens have scheduled extracurricular activities after school and/or on weekends, and the types of activities tweens do, varies by family. Some of this variation is due to the perception of need for adult supervision in of itself, which has evolved over time.¹ Compared to children in grade school, by the time children reach the tween years, some parents and guardians may perceive their children's growing independence and therefore a decreased need for adult supervision after school.¹ This perception may also be influenced by necessity, such as when both parents are working.² It also may be influenced by birth order and total number of children in the household.³ In some areas, tweens are considered old enough to babysit.⁴ Perhaps for all of these reasons, supervised after school programs available on-site at schools for elementary school-aged children often do not persist in the middle school or high school years. Some community programs offer tweens free or low-fee drop-in programs with limited or no adult supervision.⁵

Another reason for the variation in tween activities outside of school is due to increased specialization and/or interest in specific types of activities, such as sports, music, clubs, and/or religious activity. Therefore, as children transition from middle school to high school, how tweens spend their time out of school could vary widely between a sharp decline in adult supervision and increasing amounts of participation in scheduled extracurricular activity. The amount of time spent, type of activity, motivation to do well in the activity, and influence of others involved in those activities may all contribute to a decreased likelihood of youth engaging in health risk behaviors such as trying smoking and drinking during their pre-adolescent years compared to youth who do not engage in extracurricular activities.

In our conceptual framework, youth who participate in extracurricular activities may be less susceptible to trying smoking and drinking for many reasons. First, substance use is an unscheduled activity that requires leisure time; busy youth involved in scheduled activities

have less leisure time.⁶ Second, smoking is associated with impaired health, particularly of the lungs; youth involved in activities that rely on lung capacity may be inclined avoid activities that could impair their performance.⁷ Third, many organized extracurricular activities set behavioral expectations through explicit statements, such as contracts that mandate immediate consequences for being caught engaging in substance use, and through adult supervision, such as by a coach. Fourth, youth may admire and/or respect the adults involved in the extracurricular activities, and ideally benefit from their role modeling, particularly if they are living in an oppressive home environment.⁸ Coaches might model healthier habits than the youth's own family members.⁹ Finally, youth who participate in organized extracurricular activities have the opportunity to gain exposure to other healthy peer role models.^{6,10}

To date, studies have examined the relationship between extracurricular participation – type of activity, mix of activities – and youth engagement in health risk behaviors. The benefits of youth involvement in organized activities after school include smoking and drinking prevention.¹¹⁻¹³ Research has also examined the benefits of specific types of extracurricular activity, such as team sports, which may have greater benefits than other types of physical activity.¹² Several studies have concluded that high school students who participate in team sports are less likely to smoke.^{14,15} On the other hand, other studies have found that being involved in a mix of activity – sports plus other activities – confers the greatest benefits to students, over and above only sports involvement, or no activities.¹¹ Although research suggests that specific categories of extracurricular involvement may confer more benefits than others, we still do not know which ones are stronger.

Despite the large body of research in this area, most of the studies on extracurricular participation have focused on the high school years. To date, no studies have examined the relative role of different types of extracurricular activities on risk of youth smoking and drinking among tweens. Further, specifically regarding sports involvement, to date, no studies have parsed out the relative roles of coached versus non-coached sports activity in risk of youth smoking and drinking.

Therefore, we sought to determine if the influence of any kind of sport, versus sports where a coach is present, would be associated with risk of smoking and drinking. To accomplish this goal, we developed a novel approach to examine the relation between extracurricular activities and adolescent smoking and drinking with a specific focus on coached versus non-coached sports involvement in a national sample. In addition to including measures for participation in a team sport with a coach, and participation in sports without a coach, we examined the relative roles of participation in school clubs, and participation in religious activity. Our models controlled for socioeconomic status, region of the country, personal characteristics, maternal and paternal characteristics, friend and sibling behaviors, time spent watching TV and playing video games, and amount of money available to spend each week.

METHODS

The data analyzed for the current study are from a cross-sectional survey originally designed to investigate the association between movie viewing and smoking uptake in children. The

main study found that smoking in movies is a risk factor for smoking initiation among US adolescents.¹⁶ In addition to having extensive measures about exposure to smoking in movies used for the main effects analysis, the survey included a broad range of covariates as described below. The telephone survey was conducted by trained interviewers using a computer-assisted telephone interview (CATI) system from Westat (Rockville, MD), a national research organization with survey sites across the US. Interviewers were trained to administer the survey in English or Spanish. Sample selection is described in Sargent et al.¹⁶ We obtained parental consent and adolescent assent prior to interviewing each respondent. To protect confidentiality, adolescents indicated their answers to sensitive questions by pressing numbers on the telephone, rather than speaking out loud. All aspects of the survey were approved by the Committee for the Protection of Human Subjects both at Dartmouth College and at Westat.

Subjects

Between June and October 2003, we conducted a random-digit dial (RDD) telephone survey of 6522 U.S. youth aged 10-14 years. Interviewers were trained to administer the survey in English or Spanish. Methods for the study sample selection process and sample weighting to produce response estimates that are representative for the population of adolescents aged 10-14 years in U.S. households have been previously published.¹⁶ Compared to the 2000 U.S. Census, our un-weighted sample had higher percentages of Hispanics and slightly lower percentages of Blacks; we adjusted for these differences in the post-stratification weighting procedure.

Measures

Sociodemographics—Consenting parents reported their child's age, gender, and race; parent highest level of education completed; total annual household income; home location. We coded the respondent's home location in the United States in two ways: by Metropolitan Statistical Area (MSA), which is defined as having an urban area with a population of 50,000 or more,¹⁷ and by region. MSA categories were: inside central city, outside central city, non-MSA. Regional categories were: Northwest, Midwest, South, and West.

Following parent consent and child assent, children responded to the questions described below.

Child characteristics—We asked respondents about covariates known to be associated with health risk behaviors: school performance, number of friends who smoke cigarettes, sibling smoking, friend drinking, self-esteem, rebelliousness, and sensation seeking. Self-esteem¹⁸ was based on the following statements: I wish I were someone else,* I like myself the way I am, I am happy with how I look, I feel like I'm pretty smart at school. The item noted with an * was reverse scored ($\alpha = 0.61$).¹⁶ Rebelliousness¹⁹ was based on the following statements: I get in trouble at school, I argue a lot with other kids, I do things my parents wouldn't want me to do, I do what my teachers tell me to do, I argue with teachers, I like to break the rules ($\alpha = 0.74$). Sensation seeking^{20,21} was based on the following statements: I like to do scary things, I like to do dangerous things, I often think there is nothing to do, I like to listen to loud music ($\alpha = 0.59$).¹⁶

Parent characteristics—We asked respondents about parental characteristics known to be associated with health risk behaviors. For the maternal questions, we asked about mothers or stepmothers. If those were not present, we asked about: father, grandmother, grandfather, brother, sister, aunt, uncle, guardian as relevant.

Maternal demandingness

Maternal demandingness was based on the following statements: She checks to see if I do my homework, She makes sure I tell her where I'm going, She knows where I am after school, She tells me times when I must come home, She has rules that I must follow, She makes sure I go to bed on time, She asks me what I do with my friends. The response categories were: not like her, a little like her, a lot like her, just like her ($\alpha = 0.73$).

Maternal responsiveness

Maternal responsiveness was based on the following statements: She is pleased with how I behave, She listens to what I have to say, She makes me feel better when I'm upset, She wants to hear about my problems, She likes me just the way I am, She is too busy to talk to me,* She makes rules without asking me what I think,* She is always telling me what to do,* She tells me when I do a good job on things. Items noted with an * were reverse scored ($\alpha = 0.72$).

Maternal smoking

We asked, "Does your mother/stepmother smoke cigarettes?" (Yes, No).

Paternal smoking

We asked, "Does your father smoke cigarettes?" (Yes, No).

The main outcome measures were ever having tried smoking and drinking:

Smoking—We asked, "Have you ever tried smoking a cigarette, even just a puff?" (Yes, No). We classified a yes response as "ever smoke."

Drinking—We asked, "Have you ever drunk alcohol that your parents did not know about?" (Yes, No). We classified a yes response as "ever drink."

Extracurricular activities—We asked respondents their frequency of participation in team sports with a coach, other sports without a coach, music, school clubs, other clubs. This section of the interview began as follows: "I'm going to read a list of things that you may or may not participate in. Please tell me how often you do each of the following things." The response categories were: almost every day, one to a few times a week, one to a few times a month, or never. We collapsed these into three categories for the statistical analysis: a few times per week or more, one to a few times per month, never.

Team sports with a coach

"How often do you participate in team sports where there is a coach? [For example, football, baseball, basketball or soccer.]"

Other sports without a coach

We asked, “How often do you participate in other sports without a coach? [For example, pick-up basketball, or skiing with your friends or family.]”

Music

We asked, “How often do you go to music lessons, choir, dance, or band practice?”

School clubs

We asked, “How often do you participate in school clubs or activities like math or science clubs or the school paper?”

Other clubs

We asked, “How often do you participate in other clubs like the Boy or Girl Scouts, 4-H, or the Boys or Girls Clubs of America?”

Religious activities

We asked, “How often do you attend church or other religious activities?”

We also asked about additional covariates possibly related to health risk behaviors: number of movies watched per week, hours per school day spent watching television, hours per school day spent playing video games, and amount of money available to spend each week.

Statistical Analysis

All the statistical analyses were performed in SAS 9.2²² adjusting for appropriate sampling weights. Jackknife variance estimation was used. Preliminary analyses consisted of descriptive frequencies. The weighted rate ratio (weighted risk ratio) was calculated for the relationship between those who participated in team sports and those who participated in other sports without a coach. Logistic regression models tested associations with trying smoking and drinking by controlling for team sports participation with and without a coach, participation in other extracurricular activities, and the following covariates: age, gender, race, parent education, household income, region, MSA, self-esteem, school performance, friend smoking, older sibling smoking, friend drinking, rebelliousness, sensation seeking, maternal demandingness, maternal responsiveness, maternal smoking, paternal smoking, number of movies watched per week, hours per school day spent watching TV, hours per school day spent playing video games, amount of money available to spend each week. Adjusted odds ratios with 95% confidence intervals are reported. A p-value of less than 0.05 (two-sided) was considered statistically significant, without adjustment for multiple comparisons.

RESULTS

The sample description and descriptive statistics are reported in Table 1. Overall, most students reported some kind of involvement in sports or other extracurricular participation. Team sports participation with a coach and other sports without a coach had similar frequency distributions across amount of time spent in each. Most had minimal to no

participation in school clubs (74.2%), however most reported being involved in other clubs (85.8%). A little less than half participated in music, choir, dance, and/or band lessons. Over half of participants involved in religious activity did those activities a few times per week or more (Table 1). Those who participated in team sports with a coach a few times per week or more were somewhat more likely to also participate in other sports without a coach (weighted RR = 1.18 (95% C.I.: 1.12, 1.25).

Not surprisingly, tweens more likely to smoke or drink were older, had lower household incomes, lower self-esteem, higher sensation seeking, higher rebelliousness, lower school performance, and lower maternal demandingness and responsiveness. Smoking was also related to smoking by parents, older siblings, and friends. Drinking was related to drinking by friends. Smokers and drinkers were also less likely to participate in team sports with a coach, school clubs, music/choir/dance/band lessons, or to engage in religious activity. Tweens were more likely to smoke or drink if they were frequent movie viewers, played three or more hours of video games, and had more than \$20 available to spend each week (Table 1).

Results from the multiple regression analysis are reported in Table 2. Participating in a team sport with a coach a few times per week or more was associated with a lower likelihood of trying smoking (adjusted OR = 0.68 95% C.I. 0.49, 0.96) compared to none or minimal participation. It was not significantly associated with a lower likelihood of trying drinking (adjusted OR = 0.77, 95% C.I. 0.55, 1.08) compared to none or minimal participation. Participating in sports without a coach was not significantly associated with a lower likelihood of trying smoking or drinking. No other extracurricular activities were significantly associated with lower risk of smoking. Only one extracurricular activity was associated with lower risk of ever trying drinking, participating in other clubs a few times per week or more (adjusted OR = 0.56, 95% C.I. 0.32, 0.99).

DISCUSSION

Our findings, based on a national sample, suggest that the association between sports participation and lower likelihood of smoking initiation may depend on whether or not the activity is supervised by a coach. This association is independent of a number of other factors also associated with adolescent smoking initiation. We also found that the association with likelihood of trying drinking was not statistically significant but in the direction of lower risk. Future studies should examine further the extent to which the risk of youth substance use may be the result of having a coach or due to other factors that lead youth to participating in a team sport with a coach. The only other extracurricular activity that was associated with a health risk behavior was participating in other clubs – we found that it was associated with a lower risk of ever trying drinking.

The finding of team sports participation with a coach being associated with a lower likelihood of smoking is consistent with a regional study the first author led that pointed to a role for team sports participation in smoking prevention.²³ That study used a single-item measure of number of sports teams played in the past 12 months; it did not ask about coaching as we did in this study. In that regional study of 2048 adolescents, we found that

team sports participation played a protective role against established smoking, even in the face of exposure to movie smoking, which is a known risk factor for smoking.²³

Regarding the likelihood of trying drinking, that participating in team sports with a coach was in the direction of lower risk but not significant may be less surprising. Some research has shown that team sports participants may be more likely to drink alcohol.^{10,24,25} Other research has shown that the risk of smoking and drinking may depend on the type of sport²⁶ or on the age group.²⁷ Unlike other studies, we did not find a significant relationship between religious activity and smoking or drinking. Other studies have found religious attendance²⁸ is associated with less use of cigarettes and alcohol. We did find that participating in other clubs was associated with lower risk of drinking alcohol; further studies are needed to examine what is different about that kind of extracurricular activity that may lead to a lower likelihood of drinking alcohol.

To date, studies that have examined extracurricular activity have primarily focused on academic outcomes and adolescent development.^{10,29-32} To a lesser extent, they have examined health risk behaviors, focusing on alcohol^{10,31,32} and marijuana^{10,31,32} use more than tobacco³¹ use. Unlike those studies, we examined a younger age group (tweens) and we focused on the relationship between extracurricular activity and health risk behaviors. Also unlike those studies, we used a novel approach to examining sports-related extracurricular activity. Rather than asking about sports participation in the context of activity only, we framed our questions to ask about team sports participation with a coach and participation in other sports without a coach. Other studies have incorporated the concept of the role of adult role models and self-care in study of the time tweens spend out of school,^{33,34} but none have asked specifically about coaching.

For future studies we would like to examine in finer detail the possible mechanisms behind the potentially protective role of sports participation with a coach for smoking and drinking prevention in tweens. Further studies could additionally help determine if the relationships we found hold over time and across different age groups. In this study, we did not have measures to examine why team sports participation with a coach might be different than participating in other sports without a coach for smoking initiation. We were also not able to distinguish between positive and negative coaching styles, perceived pressures of certain sports environments, the amount of active participation in the sport, differences between types of sports, expectations of membership and participation, and the impact of the contribution of the family environment specifically towards the child's participation in a coached sport. We did not have length of adult supervision time. We were also unable to do finer-grained analyses to address selection effects of which children might participate in coached sports. In spite of these limitations, we had robust findings for our cross-sectional study.

This study did not have access to information regarding rules for participating in the sports. The content of sports contracts (also referred to as: agreement contract, athletic contract, code of conduct, participation guidelines, player-coach-parent contract, student-athlete contract) for school-based and club sports vary widely. To date, the content of these contracts have not been systematically coded and studied to determine whether mentioning

tobacco and/or alcohol use is associated with lower rates of youth tobacco and/or alcohol use. Some sports contracts do not mention tobacco or alcohol use. Here is an example of the kind of language that does occur in a sports contract at the middle school level: “Students are not to use, possess, or distribute tobacco products, alcohol, or drugs during the time period in which they are registered for a co-curricular program.”³⁵ Future studies could examine the effectiveness of these rules in preventing tobacco and alcohol use. Another limitation of this study is that we only addressed two health risk behaviors – smoking and drinking. Future studies could include the role of extracurriculars on preventing initiation of other youth health risk behaviors, such as trying other types of tobacco, other drugs, and early sexual engagement.

As tweens age, parents and guardians may perceive a decreasing need for adult supervision of their tween during the time spent out of school. However, this research suggests the positive role of certain extracurriculars in preventing tween smoking and drinking. Regarding our finding that tweens who participated in team sports with a coach were less likely to try smoking, we would like to point out that unfortunately, in the transition from the tween to adolescent years, coached sports teams face pressure to shift from a philosophy of inclusion to a greater emphasis on winning. This shift potentially shuts out tweens with fewer skills and/or lesser interest in facing the pressures associated with increased competition. Given that this study suggests benefits to tween participation in coached team sports, we encourage communities and schools to explore the possibility of offering non-competitive team sports with a coach. These non-competitive teams could still offer some of the same requirements to participate as competitive teams do, such as goal setting, making an effort, working together, and having strict policies against substance use for their players, yet offer inclusive participation regardless of skill level to emphasize skill building and playing experience rather than winning. The advantages of team sports participation for cardiovascular and other benefits including obesity prevention have been well established. This study suggests a possible benefit of coached team sports participation for smoking prevention among tweens. It also presents a novel approach to examining the relative roles of types of extracurricular activity on youth smoking and drinking initiation.

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What's New

Sports participation with a coach is an extracurricular activity associated a lower risk of youth smoking initiation but not alcohol initiation among tweens.

Table 1

Sample description and descriptive statistics adjusted for appropriate sampling weights.

<i>Characteristic</i>	<i>Sample Weighted %</i>	<i>Weighted % Ever Tried Smoking</i>	<i>Weighted % Ever Tried Drinking</i>
<i>Sociodemographics</i>			
Adolescent age (years)			
<=12	61.2	4.7	4.0
>=13	38.8	19.2	20.0
Adolescent gender			
Male	48.5	9.7	9.4
Female	51.5	10.9	11.0
Adolescent race/ethnicity			
White	61.7	9.8	9.6
Black	15.1	11.6	10.4
Hispanic	16.1	10.7	11.2
Other/Multiple	7.1	11.3	13.4
Highest level of parent education			
High school graduate or less	16.1	13.5	10.9
Some college, Voc/Tech, or Associates degree	44.8	12.2	10.9
Bachelors, graduate, or professional degree	39.0	6.9	9.2
Household income			
\$20,000 or less	16.2	15.1	12.1
\$20,001 to \$30,000	11.1	14.1	9.9
\$30,001 to \$75,000	44.6	10.9	10.4
Over \$75,000	28.1	6.1	9.6
Metropolitan statistical area (MSA)			
MSA, inside central city	31.9	10.4	8.8
MSA, outside central city	49.2	9.5	10.8
Non-MSA	18.9	12.4	11.1
Region			
Northeast	17.7	8.2	8.6
Midwest	22.0	12.2	10.0
South	36.2	12.0	11.2
West	24.7	7.6	10.2
<i>Adolescent and parent characteristics</i>			
Self-esteem			
Low	33.3	14.8	14.8
High	66.7	8.1	7.9
Sensation seeking			
Below median	48.5	3.4	3.3
Above median	51.5	16.8	16.7
Rebelliousness			
Below median	42.5	3.3	3.0

<i>Characteristic</i>	<i>Sample Weighted %</i>	<i>Weighted % Ever Tried Smoking</i>	<i>Weighted % Ever Tried Drinking</i>
Above median	57.5	15.5	15.5
School performance			
Excellent	30.2	5.3	5.7
Good	42.2	9.3	9.8
Average/Below average	27.6	17.5	15.9
Any friends smoke			
No	78.9	4.4	4.8
Yes	21.1	32.4	30.4
Older sibling smoke			
No	78.2	7.5	8.3
Yes	21.8	26.3	19.9
Any friends drink			
No	78.5	4.8	3.9
Yes	21.5	30.5	33.3
Maternal demandingness			
Below median	46.9	13.5	14.6
Above median	53.2	7.6	6.4
Maternal responsiveness			
Below median	45.8	14.6	14.8
Above median	54.2	6.7	6.3
Maternal smoking			
No	78.8	7.3	8.8
Yes	21.2	20.0	14.4
Paternal smoking			
No	74.3	7.4	8.2
Yes	25.7	16.8	14.9
<i>Sports and other extracurricular participation</i>			
Participates in team sports with coach			
Never to a few times per month	44.5	13.2	12.3
A few times per week or more	55.5	8.0	8.5
Participates in other sports without coach			
Never to a few times per month	44.6	10.0	9.0
A few times per week or more	55.4	10.6	11.2
Participates in school clubs			
Never to a few times per month	74.2	11.5	11.6
A few times per week or more	25.8	7.0	6.3
Participates in other clubs			
One to a few times per month or less	14.2	7.0	5.8
A few times per week or more	85.8	10.9	11.0
Participates in music, choir, dance, band lessons			
Never to a few times per month	58.9	12.4	12.3
A few times per week or more	41.1	7.5	7.2

<i>Characteristic</i>	<i>Sample Weighted %</i>	<i>Weighted % Ever Tried Smoking</i>	<i>Weighted % Ever Tried Drinking</i>
Attends church or other religious activity			
Never to a few times per month	43.0	14.3	13.1
A few times per week or more	57.1	7.4	8.1
Media Use			
Number of movies child watches per week			
Two or less	36.9	6.1	6.7
Three or more	63.1	12.8	12.3
Hours per school day child spends watching TV			
None	6.0	12.0	11.7
Less than 1 hour	19.0	8.7	9.3
One to two hours	46.2	8.9	9.7
Three to four hours	19.8	13.9	11.4
More than four hours	9.1	12.0	11.5
Hours per school day child spends playing video games			
None	29.9	11.4	11.1
Less than 1 hour	37.0	8.4	8.0
One to two hours	25.6	9.9	10.6
Three hours or more	7.5	17.1	16.4
Money available to child to spend each week			
None	15.7	9.5	9.8
\$1-\$10	54.6	8.4	7.2
\$11-\$20	19.3	11.8	13.7
More than \$20	10.4	21.0	22.2

Table 2

Odds ratios and 95% confidence intervals for ever tried smoking and drinking.

Sports and other extracurricular participation	Ever Tried Smoking		Ever Tried Drinking	
	Adjusted Odds Ratio	95% Wald Confidence Limits	Adjusted Odds Ratio	95% Wald Confidence Limits
Participates in team sports with a coach				
Never to a few times per month	reference		reference	
A few times per week or more	0.68	0.49 to 0.96	0.77	0.55 to 1.08
Participates in other sports without a coach				
Never to a few times per month	reference		reference	
A few times per week or more	0.90	0.62 to 1.29	1.00	0.74 to 1.35
Participates in music, choir, dance, band lessons				
Never to a few times per month	reference		reference	
A few times per week or more	1.31	0.94 to 1.82	0.89	0.66 to 1.21
Participates in school clubs				
Never to a few times per month	reference		reference	
A few times per week or more	0.92	0.60 to 1.41	0.78	0.54 to 1.14
Participates in other clubs				
Never to a few times per month	reference		reference	
A few times per week or more	0.98	0.47 to 2.04	0.56	0.32 to 0.99
Attends church or other religious activity				
Never to a few times per month	reference		reference	
A few times per week or more	0.70	0.48 to 1.03	0.94	0.67 to 1.32

Controlling for age, gender, race, parent education, household income, region, MSA, self-esteem, school performance, friend smoking, older sibling smoking, friend drinking, rebelliousness, sensation seeking, maternal demandingness, maternal responsiveness, maternal smoking, paternal smoking, number of movies watched per week, hours per school day spent watching TV, hours per school day spent playing video games, amount of money available to spend each week.