The Influence of Perceived Parenting on Substance Initiation among Mexican Children

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Abstract

Parents shape their children's behaviors and impact their developmental trajectories. Despite this, few studies have examined the potential relationship between child reported parenting factors and lifetime substance use and use intentions. The current study examined the potential impact of parenting factors (i.e., positive parenting, supervision, parental illicit substance use, substance-specific communication) on early substance use and intentions among Latinx children. Data for the present study utilized a representative sample of Mexican children ($n = 52{,}171$; 5th and 6th grades) who participated in a national survey on substance use. Children reported their demographics, lifetime substance use/intentions, and perceived parenting characteristic and practices. Child reported parental (i.e., individual or both parents) illicit substance use was associated with the largest increases in risk for reporting lifetime use of all substances examined. Higher levels of positive parenting were consistently associated with reductions in risk for reporting intentions for and use of all substances examined. Parent-child substance specific communication was not significantly related to child reported lifetime use or use intentions, with the exception of a minor decrease in the odds of reporting lifetime inhalant use. Supervision was associated with small to modest increase in risk. Substance use prevention efforts targeting Latinx populations may benefit from promoting positive parenting and direct supervision during childhood. Targeted prevention efforts may be needed for Latinx children exposed to parental illicit substance use, as they may be especially at risk for early substance initiation.

Keywords: parenting; substance use; use intentions; parental substance use; children; Latinx

Highlights

- Parental factors impact lifetime substance use/intentions among children.

- Parental drug use was associated with the largest increases in risk.

- Positive parenting was consistently associated with reductions in risk.

- Prevention efforts may focus on prompting positive parenting and addressing parental drug use.

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1. Introduction

Parents have the ability to shape child outcomes, especially in early childhood. Substance use initiation and maintenance are risk factors for negative outcomes for children (King & Chassin, 2007). The younger children are when they initiate substance use, the more marked the negative outcomes (Atherton, Conger, Ferrer, & Robins, 2015; Paiva, Amoyal, Johnson, & Prochaska, 2014). Negative outcomes span social, academic, and interpersonal domains and also represent a high cost to society in the long-term (Atherton et al., 2015; Paiva et al., 2014). The present manuscript seeks to uncover important parenting factors that may be amenable to intervention at a critical developmental juncture (i.e., 5th, 6th grade). Understanding the relevance of family factors in children's substance use initiation intentions and behaviors can help program developers prioritize prevention and early intervention program content. The current study examined data from a national school-based survey in Mexico, providing an important reference point for researchers to understand the generalizability of established findings, potentially informing efforts in the United States with Mexican born families, and consider the impact of culture and context in parents' influence on the development of childhood substance use.

1.1. Childhood substance use

Rates of lifetime substance use among Latinx children in Mexico are on the rise (Villatoro Velazquez et al., 2016). The prevalence of lifetime substance use among elementary age children (i.e., 5th, 6th) in Mexico is 16.9% for alcohol, 6.5% for tobacco, and 3.3% for illicit substances (Villatoro Velazquez et al., 2016). While rates of substance use are expected to

increase with age (i.e., ages 10-16; Atherton et al., 2016), prevalence rates of lifetime alcohol

and tobacco use among Mexican children have surpassed that of adolescents (i.e., ages 12-17;

9.2% use alcohol, 5.3% use tobacco) in the United States (SAMHSA, 2017). Latinx boys appear

to most at risk for early substance use, as they report higher rates of alcohol, tobacco, and

marijuana use relative to girls (Evans-Polce, Vasilenko, & Lanza, 2015), which may be due to

greater social acceptability of using particular substances by Latinx boys (Parsai, Voisine,

Marsiglia, Kulis, & Nieri, 2009). Recent findings also suggest that Latinx children above the

developmentally appropriate age for their grade may be especially at risk for substance use

(Vázquez et al., 2019). Thus, it is important to examining the impact of demographic

characteristics when examining contextual factors associated with early substance initiation.

1.2. Parenting practices

A broad variety of parenting practices are implicated in child outcomes. Using the

framework of social interaction learning theory (Patterson, 2016), important parenting variables

are: skills building, positive involvement, monitoring/supervision, effective discipline and

problem solving. These parenting practices have been researched for decades in the context of

delivering effective evidence-based interventions (Forgatch & Domenech Rodríguez, 2016;

Patterson, 2016). Five decades of intervention have shown that improving these five parenting

practices lead to increases in positive parenting and decreases in negative child behavior

including substance use and substance initiation precursors (Patterson, 2016). More importantly,

research has been conducted in Mexico using this conceptualization of parenting and a careful

cultural adaptation process (Amador, Villatoro, Guillén, & Santamaría, 2019; Baumann et al.,

2014). This intervention research has been carried out in Mexico City using rigorous randomized

controlled trials and has shown the relevance of these parenting practices in child and parent

outcomes (Amador et al., 2019).

Of the five parenting practices, research has documented most impact for parental

monitoring on substance use specifically. Parental monitoring is associated with a decrease in

substance use and delinquency during adolescence (i.e., peers, whereabouts, social plans;

Atherton et al., 2015). Parental monitoring appears to moderate the relationship between

environmental risk factors (i.e., peer substance use norms) and substance use among Mexican

adolescents (Becerra, Castillo, Ayón, & Blanchard, 2014). However, parental monitoring's

impact on substance use appears to vary by substance type among elementary age Latinx

children in the United States. Yabiku and colleagues (2010), conducted a longitudinal

examination of the impact of parental monitoring on substance use and use intentions among 5th

graders of mostly Latinx origin. They found that parental monitoring impacted alcohol and

tobacco but not marijuana use. However, parental monitoring was associated with a beneficial

impact on substance use intentions, attitudes, and norms among children who were abstinent.

These findings suggest that the protective influence of parental monitoring may differ among

Latinx children depending on the individual substances examined and whether children have

already engaged in use. In addition to monitoring, direct supervision of children can also

negatively impact early substance initiation by influencing peer group selection and provides

fewer opportunities for use (Van Ryzin, Fosco, & Dishion, 2012).

The remaining parenting practices, skills building, positive involvement, and problem

solving are all important aspects of parental involvement. This general construct is measured

differently in various research and has been consistently found to negatively impact early

substance use through improved academic performance across gender and ethnicity (Pilgrim,

Schulenberg, O'Malley, Bachman, & Johnston, 2006). Parental involvement has also been independently associated with greater adolescent self-regulation and reduced alcohol and tobacco use (Wong, 2008). Parental involvement is especially salient between childhood to early adolescence before peer influences assume a more prominent influence on substance use during middle to late adolescence (Olds & Tombs, 2001). These parental influences – monitoring/supervision, skills building, positive involvement, problem solving, and effective discipline—create important circles of protection for children at a critical developmental juncture.

1.3. Substance specific communication

Public prevention efforts in both the United States and Mexico have called for parents to communicate with their children regarding the consequences of substance use. Research suggests that parent-child communication may protect against early substance initiation. For example, non-substance specific parent-child communication has been found to protect boys against alcohol and tobacco use (Luk, Farhat, Iannotti, & Simons-Morton, 2010). However, substance specific parental communication regarding alcohol and tobacco use may not be associated with early adolescents' substance use initiations (Ennett, Bauman, Forshee, Pemberton, & Hicks, 2001). No known research has examined the impact of substance specific parent-child communication among Latinx youth during childhood when parental influences may be especially salient.

1.4. Parental illicit substance use

Parental illicit substance use has been identified as a significant risk factor for childhood substance use (Kilpatrick et al., 2000). Many children exposed to parental illicit substance use experience psychological, medical, and behavioral problems (Smith & Wilson, 2016). In

contrast, children of non-using parents are less likely to select substance using peer groups or engage in substances use (Li, Pentz, & Chou, 2002). Research suggests that interventions targeting parenting skills and family functioning among children exposed to parental illicit substance use may improve developmental trajectories (Calhoun, Conner, Miller, & Messina, 2015). Thus, while parental substance use has the potential to negatively impact children's development, developing parenting skills and competencies may improve outcomes among children whose parents use illicit substances.

1.5. Current study

The present study sought to examine the impact of parental factors on substance use and use intentions within a nationally representative sample of Mexican children (i.e., 5th and 6th grade). Our aims were (a) to examine the potential impact of positive parenting practices (i.e.,g involvement, skills building, monitoring), substance specific communication, direct supervision, and parental substance use on childhood lifetime substance use, and (b) determine whether these parenting factors impact intentions to engage in substances for the first time. Based on previous research, we hypothesized that higher levels of positive parenting would be related to lower odds of reporting substance use and intentions. We also expected parental illicit substance use to be a significant risk factor for child reported lifetime substance use and use intentions. We also hypothesize that children who have high degrees of direct parental supervision would have lower odds of reporting substance intentions and use. Finally, we did not expect parent-child substance specific communication to be a significant predictor of substance use and intentions.

2. Method

2.1. Participants and procedures

Data for the present study include 52,171 elementary students (5th and 6th grade) that participated in the National Survey of Drug Use Among Students (Encuesta Nacional de Consumo de Drogas en Estudiantes; ENCODE) in Mexico in 2014. Inclusion criteria for the current study was being at school on the day of data collection, and being in the 5th or 6th grade. Table 1 has complete demographic information. ENCODE data is cross-sectional. Schools were randomly selected from each state in Mexico to form a nationally representative sample of elementary age students. The ENCODE team used uniform collection and data management procedures across schools. Participants completed paper surveys in a 70 min group session. Survey questions were read out loud to the students in their classrooms to reduce developmental language barriers (See Villatoro Veláquez et al. 2016 for additional methodological information). The Secretary of Public Education in Mexico provided ENCODE representative's permission to survey students and train school staff in data collection. Active consent was not obtained from parents as the Secretary of Public Education granted the consent to survey students. Students provided assent at the outset of the survey and those that did not wish to participate could elect to do so. The (masked for review) Institutional Review Board approved the use of ENCODE data for the current study.

The ENCODE team conducted validity checks and eliminated inconsistent responders on substance use outcomes (e.g., zig zag responses; inconsistency between lifetime use and last 30 day use for each substance; $n = 476$; 0.009%) from the original dataset ($N = 52,647$). The current study confirmed the validity of intentions outcomes by examining response consistency across a variety of indicators (e.g., last year, 30 days use, lifetime use by first time substance intentions). Responses were consistent for all outcomes with the exception of other substance use intentions, which had 1,450 (2.8%) inconsistent responders. As responses were consistent for all other use

and intentions outcomes, inconsistent responders were only removed from analysis examining other substance use intentions.

2.2. Measures

      2.2.1. Survey information. All measures used in the current study were developed and utilized by the ENCODE team in prior research seeking to understand patterns and predictors of substance use among Mexican students (Villatoro Velázquez et al., 2016; Villatoro Velázquez et al., 2017). See supplemental Tables S1/S2 for questionnaire items in English and Spanish.

      2.2.2. Child characteristics. Participants self-reported demographic information such as age, gender, and grade. An "overage" variable was generated to represent participants who were above the typical age for their respective school grades (i.e., 5th = ages 10-11 and 6th = ages 11-12; Vázquez et al., 2019). In the 5th grade, overage children were 12 to 15 years of age. In the 6th grade, overage children were 13 to 15 years of age.

      2.2.3. Substance intentions and use. Participants were asked to report on lifetime substance use on five items queried alcohol, tobacco, marijuana, inhalant, and other substance use. Specifically, these questions asked students to report whether they had tried a full glass of an alcoholic beverage (i.e., beer, wine, rum, tequila), smoked tobacco or cigarettes, and used/tried marijuana, inhalant, and other substances during their lifetime. Participants indicated whether they had past use, *yes* (1) or *no* (0), for each substance. Intention to use substances was measured using substance specific items. Participants who had not previously initiated in substances use were asked to rate the likelihood that they would engage in alcohol, tobacco, or other substances use (i.e., substances other than alcohol and tobacco) for the first time on a 4-point scale: *not likely* (1), *likely* (2), *very likely* (3), *I already consume alcohol* (4). Dichotomous substance use intentions variables were created by coding responses for those who reported that they were

"likely" or "very likely" to use substances as *probable* (1), while those who reported that it was

"not likely*"* were coded as *not probable* (0).

   2.2.4. Parenting quality. A 20-item questionnaire was used to assess child perceptions of

parenting practices, which was developed by the ENCODE team and based on the Alabama

Parenting Questionnaire (APQ; Shelton, Frick, & Wootton, 1996). The current study utilized the

full-scale score which represents several domains associate with parenting quality such as

involvement (e.g., aware of who friends are, include child in actives, attend school meeting),

skills building (e.g., reward or affection for good behavior, encourage good effort), monitoring of

peers (e.g., supervising online activity and chatting with peers, when going out parents know

with whom and where they are going), and neglect (e.g., so busy that that forget where the child

is, leave child alone). This provides a measure that is consistent with the overall goal of parent

management training programs, which seek to promote a variety of practices associated with

positive outcomes among children (Forgatch & Domenech Rodríguez, 2016). Responses were:

never (1), *sometimes* (2), *frequently* (3), *very frequently* (4). A mean was taken of all 20 items

with higher score representing greater degrees of positive parenting behaviors. Internal

consistency within the current sample was good ($\alpha = 0.83$).

   2.2.5. Direct supervision. Participants were asked to rate how much of the day they spent

unsupervised at home without their parents. Responses were recorded on a single item with

responses being *most of the day* (1), a *part of the day* (2), *never or almost never* (3).

   2.2.6. Substance specific communication. Students were asked whether their parents had

conversations associated with substance use within the last six months on four questions (i.e.,

rules, abstinence advice, use of substance in media, discuss others problems caused by drugs).

They responded *yes* (1) or *no* (0). These questions were combined into an index score ranging

from 0-4, with higher scores representing a greater number of substance specific communication.

      2.2.7. Parental illicit substance use. Participants were asked to report whether their

mother and father had used substances other than alcohol and tobacco on two items. Responses

were reported as *yes* (1) or *no* (0). A variable was created to examine difference in risk among

children who reported *individual* (1) and *dual (2)* parental illicit substances use relative to those

who reported that their caregivers abstain from drug use (0).

2.3. Data analytic plan

      In the overall dataset, 29.9% ($n = 15,610$) of participants were missing at least one

covariate. Multiple imputations were used to estimate missing values as this method is preferred

over casewise deletion (Enders, 2010). When data missingness exceeds 10%, it is recommended

that individual items be imputed as this approach outperforms mean item imputation (Eekhout et

al., 2014). Furthermore, researchers have recommended using twenty multiple imputation

datasets when variable missingness is between 10-30% (Graham, Olchowski, & Gilreath, 2007).

We followed these recommendations to reduce the chances of biased missing value estimates.

The analysis was conducted in two steps using SPSS. We first created the twenty datasets with

independent imputation scenarios. In the second step, demographic variables were covaried to

control for age (i.e., grade, overage) and gender. Independent binary logistic regression analyses

were then conducted in each dataset to examine predictors of substance intent and use. Results

across datasets were pooled into a single output for each outcome (i.e., average of parameter

estimates across datasets; Enders, 2010). These results can be interpreted in the same manner as

a standard logistic regression (see Tables 2 and 3).

3. Results

3.1. Substance use

Rates of lifetime substance use in the current sample were 8,954 (17.2%) alcohol, 3,626 (7%) tobacco, 1,435 (2.8%) marijuana, 1,130 (2.2%) inhalants, and 1,002 (1.9%) other substances. Several parenting variables demonstrated consistent importance across substance use indicators while controlling for child age and gender. Unit increases in positive parenting were associated with lower odds of reporting lifetime use of all substances (see Table 2). Children that reported illicit substance use by an individual parent were twice as likely to report use of alcohol, three times for tobacco and marijuana use, and five times for inhalants and other substance use relative to children with non-using parents. Children who reported that both of their parents used illicit substances were three times more likely to report alcohol use, five times for tobacco use, eight times for marijuana use, ten times for inhalants use, and eleven times for other substance use relative to children with non-using parents. Substance specific parent-child communication was not significantly related to lifetime use for the majority of substances examined. The only exception was inhalant use; with a unit increase in substance specific communication being associated with a negligible reduction in the odds of reporting use. Children who reported that they were being unsupervised for "part of the day" or "most of the day" were more likely to report lifetime use of alcohol, tobacco, marijuana, and inhalants relative to those who were "never or almost never" left unsupervised. Direct supervision was only associated with an increase in the odds of reporting use among children who reported being unsupervised "most of the day" relative to the comparison group. However, the increased odds of reporting substance use among children who were unsupervised "part of the day" (i.e., 22-37%) or "most of the day" (i.e., 15-94%) were small for the majority of outcomes in relation to the comparison group.

3.2. Substance intentions

Rates of substance intentions in the current sample were 2,841 (5.4%) for alcohol, 5,369 (10.3%) for tobacco, and 3,094 (6.1%) for other substances. Parenting factors were also important across substance intentions indicators while controlling for child age and gender. A unit increase in positive parenting was associated with reduction in the odds of reporting alcohol, tobacco, and other substance intentions (see Table 3). Children who had a parent that used illicit substances had small increases in the odds of reporting intentions to use tobacco (i.e., 42%) and other substance (i.e., 40%) relative to those with non-using parents. Children who reported that both of their parents used illicit substances were consistently at greater risk of reporting use intentions across substances relative to those with non-using parents. Children reporting that they were unsupervised for "part of the day" or "most of the day" were at in increased risk for reporting intentions to use tobacco and other substances relative to those who were "never or almost never" left unsupervised. However, increases in the odds of reporting tobacco and other substance use intentions among children that were unsupervised "part of the day" (i.e., 25% for both) or "most of the day" (i.e., 22% for tobacco, 47% for other substances) were small in relation to the comparison group. Direct supervision was not related to alcohol use intentions. Substance specific parent-child communication was also not significantly related to substance use intentions.

4. Discussion

In all, our findings show that the largest increases in risk for substance use and intention was associated with parental illicit substance use. In contrast the largest reduction in odds were associated with increases in positive parenting practices across indicators of substance intentions and use. Data from the present study may aid substance use prevention efforts targeting vulnerable Latinx populations. Luckily, these efforts are well underway in México where

research to examine the relevance, acceptability, and effectiveness of a culturally-adapted evidence-based parenting program has shown excellent promise (Amador et al., 2019). The current findings suggest that it may be useful to step-up dissemination and implementation efforts.

Child reported parental illicit substance was associated with the most significant increases in risk for lifetime use of all substances examined. The impact is greater when both parents are using illicit substances as compared to only one parent. These findings are consistent with work in the United States showing that parental illicit substance use may impact substance use and use intentions prior to adolescence (Li et al., 2002). Also consistent with previous research in the United States, higher levels of positive parenting practices were associated with lower odds of child reported lifetime use and use intentions across substances examined (Wong, 2008; Yabiku et al., 2010). These findings suggest that children's perceptions of their caregivers' use of positive parental practices can impacting their risk for initiating in both licit and illicit substance use. Consistent with previous research on adolescents in the United States, substance specific parent-child communication was not related to report of lifetime substance use or use intentions among Latinx children in Mexico (Ennett et al., 2001). The only exception was inhalant use; our results suggest that substance specific-communication had a negligible reduction in risk for inhalant use. Lower levels of direct supervision were generally associated with small increase in the odds of reporting substance use or intentions. However, there was a pronounced difference in risk for reporting the use of illicit substances (i.e., 69% marijuana, 94% inhalants, 65% other substances) among children who were unsupervised "most of the day" relative to the reference group. These findings may reflect greater youth opportunities for

engaging in illicit substance use when they spend the majority of the day away from their parents

watchful eye (Van Ryzin et al., 2012).

4.1. Implications

Findings suggest that the influence of parental illicit substance use may significantly

impact substance initiation in the pre-adolescence period. Targeted research and prevention

efforts may be useful in delaying substance initiation and promoting positive developmental

trajectories among children exposed to parental illicit substance use. Positive parenting practices

are important above and beyond the impact of parental illicit substance use. Research already

documents the benefits of treating both parental illicit substance use and providing parenting

skills training for substance abusing families to address child behavior problems and improve

family functioning (Calhoun et al., 2015; Li et al., 2002) in the United States. Our data suggests

this course of action may be worth examining in Mexico. Furthermore, parenting intervention

programs may consider promote direct supervision to reduce childhood risk for illicit substance

use when family circumstances are amenable.

Overall, findings suggest that what parents say about substance use is less influential than

what they do (i.e., parental substance use, involvement, monitoring). Engaging positive parenting

practices is also an action on the part of parents that seems to protect children, in contrast with

substance specific parent-child communication which may unwittingly send the message "do as I

say not as I do".

5. Limitations

The findings of the current study should be viewed in light of several limitations. As

substance specific communication was limited to four questions within the current study (i.e.,

rules, abstinence advice, use of substance in media, discuss others problems caused by drugs),

future research may consider examining the impact of other forms of parental communication (e.g., consequences for use, expectations) on substance initiation among Mexican children. Furthermore, the current study relied on individual items to measure direct supervision and parental illicit substance use. Additional research is needed to confirm these findings with more robust measures of direct supervision and parental illicit substance use. Administration of the survey in classrooms may have also increased the chances of socially desirable responding. As students may worry about the reactions of teachers or classmates to their response. I should be noted, that findings from the current study may also not generalize to Latinx populations outside of Mexico. Lastly, as the current study utilized cross-sectional data, we cannot establish the causal ordering of parenting factors and child substance intentions/use since they were measured concurrently. Thus, further research is needed to examine the impact of parenting factors on substance initiation among Mexican children longitudinally.

6. Conclusions

Children's perceptions of their caregiver's behavior and parenting skills can significantly impact their risk for substance initiation. Findings suggest that preventions efforts may benefit from targeting family level risk factors such as parental illicit substance use and significant amounts of unsupervised time during the period leading up to adolescences. Findings of the current study provide strong support for the implementation and dissemination of parenting skills interventions focused on increasing positive parental practices to mitigate risk of substance use among Mexican children. When transporting survey knowledge to implementation packages, it is critically important to generate prevention programs that are centered on the communities in which they are intended to be used. Cultural adaptation meta-analyses have shown the benefits of adapting programs (Soto et al., 2018). Scholarship points to the importance of avoiding cultural

imperialism that could be associated with the thoughtless exportation of research methods and

psychological interventions (Domenech Rodríguez et al., 2018). In all, the findings point to the

importance of what parents model for their children –either use or effective parenting—in the

lives of their children.

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Table 1

Demographics (N = *52,171*)

Variables	*n* (%)
Age *M (SD)*	10.40 (.82)
5th Grade	31,219 (59.8)
Overage	1,488 (2.9)
Boys	26,477 (50.8)
Family composition	
Both parents	37,258 (71.4)
Step-mother	3,419 (6.6)
Step-father	3,587 (6.9)
Parent illicit substance use	
Individual	3,648 (7)
Both	1,268 (2.4)
Child substance use	
Alcohol	8,954 (17.2)
Tobacco	3,626 (7)
Marijuana	1,435 (2.8)
Inhalants	1,130 (2.2)
Other substances[a]	1,002 (1.9)
Child substance intentions	
Alcohol	2,841 (5.4)
Tobacco	5,369 (10.3)
Other substances[b]	3,094 (6.1)

Note: [a]includes substances such as cocaine, methamphetamine,
[b]substances other than alcohol and tobacco.

Table 2. *Parenting Predictors of Lifetime Substance Use from Aggregated Logistic Regression Analysis on Multiple Imputations Datasets (N = 52,171)*

	Alcohol OR [95% CI]	Tobacco OR [95% CI]	Marijuana OR [95% CI]	Inhalants OR [95% CI]	Other Substances[a] OR [95% CI]
Boys[1]	1.88* [1.79-1.98]	2.06* [1.91-2.22]	2.44* [2.15-2.76]	2.23* [1.94-2.56]	2.25* [1.94-2.60]
6th Grade[2]	1.24* [1.18-1.30]	1.25* [1.16-1.34]	0.92 [0.82-1.03]	0.81* [0.71-0.92]	0.89 [0.78-1.02]
Overage[3]	1.43* [1.27-1.62]	2.20* [1.90-2.54]	1.89* [1.52-2.35]	1.80* [1.41-2.31]	2.19* [1.71-2.79]
Positive parenting[4]	0.62* [0.59-0.65]	0.45* [0.42-0.49]	0.40* [0.35-0.45]	0.42* [0.35-0.47]	0.41* [1.71-2.79]
Communication[5]	1.01 [1.00-1.03]	1.00 [0.97-1.02]	0.98 [0.95-1.02]	0.93* [0.89-0.98]	0.98 [0.93-1.02]
Unsupervised[6]					
Part of the day	1.22* [1.15-1.29]	1.25* [1.14-1.36]	1.25* [1.09-1.44]	1.37* [2.26-2.60]	1.14 [0.96-1.35]
Most of the day	1.15* [1.08-1.23]	1.47* [1.34-1.60]	1.69* [1.47-1.94]	1.94* [1.66-2.26]	1.65* [1.40-1.94]
Parental drug use[7]					
One parent	2.42* [2.24-2.60]	3.26* [2.96-3.58]	4.82* [4.22-5.50]	5.17* [4.46-5.99]	5.69* [4.87-6.64]
Both parents	3.43* [3.05-3.85]	5.01* [4.37-5.74]	8.36* [7.08-9.87]	10.37* [8.70-12.35]	11.42* [9.51-13-71]

Note: OR = odds ratio; 95% CI = 95% confidence interval. Table presents pooled results from five analyses performed on the five multiple imputated datasets. [a]includes substances such as cocaine, methamphetamine, etc. [1]relative to girls, [2]relative to 5th grader, [3]relative to appropriate age for grade, [4]relative to unit increase in positive parenting practices, [5]relative to unit increase in substance specific communication, [6]relative to never or almost never unsupervised, [7]relative to no illicit substance use. * $p < .05$.

Table 3. *Parenting Predictors of Substance Use Intentions from Aggregated Logistic Regression Analysis on Multiple Imputations Datasets*

	Alcohol (n = 23,008) OR [95% CI]	Tobacco (n = 45,287) OR [95% CI]	Other Substances[a] (n =43,515) OR [95% CI]
Boys[1]	1.05 [0.97-1.14]	1.24* [1.17-1.31]	1.11* [1.03-1.19]
6th Grade[2]	0.96 [0.88-1.04]	0.92* [0.86-0.97]	0.84* [0.78-0.90]
Overage[3]	0.97 [0.76-1.25]	0.98 [0.82-1.17]	1.05 [0.86-1.30]
Positive parenting[4]	0.62* [0.57-0.68]	0.54* [0.51-0.57]	0.50* [0.47-0.54]
Communication[5]	0.99 [0.96-1.02]	1.01 [0.98-1.03]	1.02 [0.99-1.04
Unsupervised[6]			
Part of the day	1.07 [0.97-1.18]	1.25* [1.17-1.34]	1.25* [1.15-1.37]
Most of the time	1.11 [1.00-1.23]	1.22* [1.13-1.32]	1.47* [1.34-1.62]
Parental drug use[7]			
One parent	1.18 [1.00-1.39]	1.42* [1.27-1.57]	1.40* [1.22-1.59]
Both parents	1.60* [1.22-2.10]	1.71* [1.43-2.04]	1.53* [1.23-1.92]

Note: OR = odds ratio; 95% CI = 95% confidence interval. Table presents pooled results from five analyses performed on the five multiple imputated datasets. [a]includes substances other than alcohol and tobacco. [1]relative to girls, [2]relative to 5th grader, [3]relative to appropriate age for grade, [4]relative to unit [5]relative to unit increase in substance specific communication, [6]relative to never or almost never unsupervised, [7]relative to no illicit substance use. * $p < .05$.