

The Role of Perceived Parental Involvement in Alcohol Consumption and Tobacco Use in Youth

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As the primary source of socialization, parental involvement in a child's life remains vital and acts as a salient, proactive force in their development. Higher levels of perceived parental involvement have been associated with lower levels and frequency of both alcohol and tobacco use, as well as initiation at a later age. Comparable results were obtained following analysis of a large American community sample ($N = 18,294$). Along with a 9-item measure of parental involvement, respondents completed a questionnaire assessing alcohol and tobacco use, frequency, and age of initiation. Lower parental involvement was positively associated with absolute use of all substances (i.e., alcohol, tobacco cigarettes, snuff, cigars, pipe tobacco, and chewing tobacco). Higher parental involvement was negatively associated with frequency and age of first use with alcohol, and with frequency of cigarette consumption. Future research could further explore the precise mechanisms by which involvement renders positive outcomes in youth.

Keywords: parental involvement, tobacco, alcohol, substance use, child development

En tant que source primaire de socialisation, la participation des parents dans la vie de leur enfant constitue un facteur de protection important. Une implication parentale plus élevée corrèle avec un taux et une fréquence plus faibles de consommation d'alcool et de tabac, et ce débutant plus tardivement. Des résultats comparables ont été obtenus suite à l'analyse d'un large échantillon américain ($N = 18\ 294$). La mesure d'implication parentale comportait neuf items et les répondants devaient remplir un questionnaire mesurant la consommation d'alcool et de tabac, la fréquence de consommation et l'âge de l'initiation. Un faible taux d'implication parentale corrélait positivement avec la consommation de substances (c.-à-d., alcool et cigarettes), tandis qu'un taux élevé d'implication parentale était négativement corrélé avec l'âge de la première consommation d'alcool et la fréquence de consommation d'alcool et de tabac. Davantage d'études permettraient d'explorer les mécanismes influençant positivement les jeunes.

Mots-clés : implication des parents, tabac, alcool, consommation de substances, développement de l'enfant

Does parenting matter? Can parents successfully usher youth toward their own cultural and moral values upon majority? Society places great trust in parents to provide children with the necessary knowledge and skills to cope effectively with the inevitable demands of daily living. Indeed, a child's relationship with their parent is often their first one formed, making it a crucial part of a child's life and a salient factor in both adolescent and adult development (Benoit, 2004). As Baumrind (1978) notes, "socialization is an adult-initiated process by which the young person through education, training, and imitation acquires their culture as well as the habits and values congruent with adaptation to that culture" (p. 239). Since it incorporates diverse stages

of infancy, socialization is a constant developmental process influenced by parenting practices and environmental conditions. More importantly, socialization is a lifelong process that still occurs throughout adulthood (Kuczynski, 2012). The combination of these factors is what forms the parent-child relationship.

Parents provide their children with two distinct elements, which both affect development: genetics and environment. Socialization studies do not typically control for genetic contribution (Avinum & Knafo-Noam, as cited in Grusec & Hastings, 2014). The fact that greater parental involvement correlates with less smoking in youth may be due to parental involvement, genetics (i.e., genetic factors that may contribute to both a lower probability of addiction in the child and more involvement by the parent), or both. Indeed, Harris (2011) questions research that attributes all developmental outcomes to parental influences. She suggests that parenting styles are contingent on a variety of factors, including initial child temperament, and cites evidence that shows

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either a zero or slight relationship between a child's behaviours and a parent's child-rearing style.

Many parents, however, will concede that their children arrived at a very different shore from what was intended—despite having provided those vital life lessons (i.e., education, training, and imitation; Harris, 2011). Some parents may also be under-involved in their child's upbringing, which may leave children vulnerable to various social ills, such as substance abuse. Thus, the degree of parental involvement will be linked to child socialization in an effort to address the following question: can increased parental involvement positively impact a child's life? That is, with a more thorough understanding of parental involvement, there should be a better prediction on how parents may benefit or impair their child's future development. Although there has been extensive research conducted on the topic of parental involvement in relation to youth development, a gulf in the literature exists concerning the role of involvement in youth's use (and abuse) of alcohol and tobacco products. This study looks at the analysis of a large community sample, wherein it is evaluated whether parental involvement in a child's life predicts alcohol and tobacco initiation and consumption.

Baumrind on Parental Involvement

The present study borrows heavily from past theoretical groundwork (Baumrind, 1967, 1971, 1978, 1991) concerning the delineation of parenting styles, where parental methodology is applied to one's own dependent, and their impact on youth socialization (cf. Esplin, 2017; Shaffer, Yates, & Egeland, 2009; Shucksmith, Hendry, & Glendinning, 1995). Baumrind's conceptualization of parenting style established the foundation for much of today's investigations into parenting, as the conceptualization appears relevant and well supported (Darling & Steinberg, 1993). Baumrind classified parenting styles along two dimensions, resulting in four principal styles: *authoritarian* (high control/discipline with low care/warmth), *authoritative* (high control/discipline with high care/warmth), *permissive* (low control/discipline with high care/warmth), and *neglectful* (low control/discipline and low care/warmth). Studies have shown that warm, attentive, and highly involved parents (akin to the authoritative style) tend to yield children with high self-esteem and greater behavioral and emotional adjustment (Yazdani & Daryei, 2016). Indeed, results from a multi-national study of nearly 8,000 adolescents from Sweden, Spain, Portugal, Slovenia, the United Kingdom, and the Czech Republic showed that an authoritative parenting style predicted fewer negative outcomes concerning substance use in youth (Calafat, Garcia, Juan, Becona, & Fernandez-Hermida, 2014).

Past research (Baumrind, 1971, 1991) addresses whether enhanced parental involvement—such as enforcing a curfew, assigning chores, and monitoring the child's academic performance—would necessarily protect youth from the risks of smoking and drinking. To argue that parental involvement is crucial in creating a sustainable and harmonious environment for a child to both thrive and avoid negative outcomes, Smith and Stern (1997) state that children who are exposed to maltreatment and who lack support and behavior management skills are more likely to be delinquent (as cited in Wilson & Petersilia, 2011). In contrast, a supportive family may safeguard children, even in adverse external environments. In addition, Smith and Stern confer that parental monitoring is a main family management indicator, consistently related to levels of delinquency (as cited in Wilson & Petersilia).

Much of the literature to date concerning parental involvement has focused on its association with academic achievement rather than with social development and substance use (Hayakawa, Giovanelli, Englund, & Reynolds, 2016; Janssen, Weerman, & Eichelsheim, 2016; Oppenheimer et al., 2016); indeed, the domain of coverage could be broader still (Nokali, Bachman, & Votruba-Drzal, 2010). However, as a parallel argument, a recent study that linked parental involvement to youth's initiation and use of illicit substances. Day and Cramer (2018) examined the responses of 18,271 participants (aged between 12 and 17 years) to questions concerning both parental involvement and illegal substance use. Results showed that parental involvement was relevant only in predicting the absolute use of an illicit substance (e.g., marijuana, cocaine, heroin), but not when predicting either frequency of use or age of first use. In short, parents' involvement in their child's life did matter, but only at the point of initiation. The present study will separately evaluate the relationship between parental involvement and youth tobacco versus alcohol use. This will lead to a greater understanding of each variable's distinct association with parental involvement.

Parental Involvement and Alcohol Consumption

Underage drinking has increasingly become a widespread health concern to those aged between 12 and 20 years, contributing to the leading causes of death in North America (Miller, Naimi, Brewer, & Jones, 2007). A sense of urgency to intervene and eliminate such consequences is needed; greater parental involvement has been analyzed to determine the extent to which it can act as a protective factor. On the central question of parents' impact on alcohol consumption, Wood, Read, Mitchell, and Brand (2004) found that a higher involvement moderated the

influence of youth's peers on alcohol-related behaviours. Specifically, a higher level of parental involvement was associated with less peer influence, alcohol consumption, and problematic behaviour. Additionally, Liebschutz et al. (2015) revealed that those at risk for negative behaviors were significantly more likely to show resilience (such as less underage drinking) when parental involvement was high. A more recent study by McLaughlin, Campbell, and McColgan (2016) suggested that high levels of parental involvement buffered against alcohol consumption in youth. The study compared different styles of parenting and concluded that an authoritative style was more likely to prevent (or at least reduce) alcohol consumption in youth due to higher parental involvement. Gilligan and Kypri (2012) identified several significant predictors of delayed alcohol initiation and lower levels of alcohol consumption (once initiated) in a child's life, such as parental modeling of drinking conduct, alcohol-specific communication, condemnation of juvenile drinking, general and specific discipline, parent-child relationship quality, household conflict, and parental supervision, support, participation, and communication. These elements were selected based on a systematic review of longitudinal studies investigating parenting components in relation to youth alcohol consumption.

Parental Involvement and Tobacco Use in Youth

According to the World Health Organization (2018), tobacco is the largest and most preventable cause of several diseases, chronic disability, and premature death in the world. Current data indicate that if youth smoking rates persist, 5.6 million Americans aged 18 years and younger will die from a smoking-related illness (Centers for Disease Control and Prevention, 2017). The question is whether greater parental involvement can shield youth from these risks. The scholarly literature on the subject remains thin, though work by Nelson and Phillips-Salimi (2015) confirms that higher parental involvement (as found in the authoritative parenting style) decreases the likelihood of tobacco use among youth. Their study also showed that, although substance use can occur at different ages of an individual's life, early use of a substance predicted higher instances of use, experimentation, and chronic abuse (see also Campbell, Sterling, Chi, & Kline-Simon, 2016).

Given that early use of tobacco is a key predictor of who becomes an adult smoker, it is crucial to identify the antecedents of such behaviours. Deficits in authoritative parenting are related to long-term negative consequences, including increased likelihood of using substances like tobacco (Foster et al., 2006). Poor parental monitoring is related to higher levels of

adolescent substance use, with regard to initiation of use at earlier ages alongside higher levels of delinquency and hostility (Griffin, Botvin, Scheier, Diaz, & Miller, 2000). Correspondingly, lower rates of communication and support provided by the parent to the child are more likely to be linked to greater substance use and misbehaviour (Griffin et al., 2000). For instance, irregular communication between the child and parent, and less time spent together, have been associated with higher levels of tobacco use in fifth, sixth, and seventh graders (Griffin et al., 2000). One final study revealed that parental involvement could both directly and indirectly influence youth smoking, wherein youth were 39% less likely to smoke cigarettes if their peers' mother was involved in their own child's life (Shakya, Christakis, & Fowler, 2012). Arguably, parental involvement is crucial when considering a child's developmental trajectory. Thus, it is vital to examine the extent of this impact regarding to the use, frequency, and age of initiation of youth alcohol and tobacco use.

Present Study

The present study aims to evaluate the degree to which parental involvement predicts youth consumption of alcohol and tobacco. As past studies (Baumrind, 1971, 1991) asked, could parents who demonstrate greater involvement in the lives of their youth (by enforcing a curfew, assigning chores, or monitoring their child's academics) reliably protect them from the risks of substance use? This question was examined using health data within a large American community sample. Based on previous studies (Baumrind, 1967, 1971, 1978, 1991) and Day and Cramer (2018), who found that lower parental involvement acted as a predictor of illicit substance use in youth, the hypothesis is that with higher perceived parental involvement, youth (aged between 12 and 17 years) would: 1) be less likely to ever initiate consumption of alcohol and/or tobacco; 2) begin consumption at a later age; 3) consume these substances less frequently.

Method

Participants

The present study offers an archival analysis of data obtained from the National (American) Household Survey on Drug Use and Health (2004). The study included 18,294 respondents (51% male), yet for the purpose of the present study, only those aged between 12 and 17 years were analyzed. The full survey included approximately 3,100 variables from 55,602 respondents (Thompson, 2004). The racial background of the sample consisted of 64% Caucasians (5,987 males and 5,708 females), 14%

Hispanics (1,367 males and 1,255 females), and 13% African-Americans (1,208 males and 1,255 females), with 8% ($n = 1,515$) belonging to multiple or other categories. This nationwide survey interviewed approximately 70,000 randomly selected individuals aged 12 years or older. Since the original publication, the current dataset had not been analyzed concerning parental involvement and either tobacco use or alcohol consumption. Those who completed the survey received \$30 cash as an incentive, prompting a 91% screening response rate and a 77% interview response rate for the computer-assisted interview (Thompson, 2004).

Materials and Procedure

Participants completed the National Household Survey—a broad instrument using computer-assisted interview methods, which tested several drug, crime, alcohol, and depression variables (Thompson, 2004). Despite the inclusion of numerous variables tested throughout the initial survey, the current study focused on the evaluation of six specific substances: cigarettes, snuff (i.e., powdered tobacco inhaled or “snuffed” into the nasal cavity), pipe tobacco, chewing tobacco, cigars, and alcohol. Participants responded *yes* or *no* to whether they had ever tried any of these substances so as to compare absolute use (hypothesis 1). Additionally, several continuous measures were analyzed, including age (in years) at first use (hypothesis 2) and frequency of current use (hypothesis 3).

To assess perceived parental involvement with youth, respondents completed a 9-item author-generated inventory (cf. Appendix A for the full list of items) wherein they retrospectively reflected on their parents’ relative involvement in their lives (endorsing either 0 = *seldom/never* or 1 = *always/sometimes*). The items took the following form: “Have you talked with parents about the dangers of tobacco and alcohol?” and “Have your parents checked if your homework is done in the past year?”.

Internal consistency (Kuder-Richardson) estimates were just acceptable at $\alpha = .647$ (cf. Day & Cramer, 2018); item exclusion offered no improvement. As

Table 1
Sample Demographics by Gender and Age

Age (Years)	<i>n</i> (%)	Men (%)	Women (%)
12	2,874 (15.7)	1,441 (15.4)	1,433 (16.0)
13	3,186 (17.4)	1,615 (17.3)	1,571 (17.5)
14	3,139 (17.2)	1,606 (17.2)	1,533 (17.1)
15	3,116 (17.0)	1,596 (17.1)	1,520 (17.0)
16	3,010 (16.5)	1,553 (16.6)	1,457 (16.3)
17	2,969 (16.2)	1,519 (16.3)	1,450 (16.2)
Total	18,294 (100.0)	9,330 (51.0)	8,964 (49.0)

such, all nine items were retained and summed to produce a final parental involvement index ($M = 6.60$, $SD = 1.88$), where higher scores reflected greater perceived parental involvement.

Results

A significance level of $\alpha = .05$ was set for all analyses, including a Bonferroni correction so as to avoid elevated risk of Type I error (also called a false positive, or an erroneous rejection of the null hypothesis), which may occur when performing multiple tests. Breakdown of the sample by sex and age are found in Table 1. The first hypothesis—whether parental involvement predicted youth initiation (*yes* or *no*) of alcohol or tobacco products—was evaluated using an independent samples *t*-test, with parental involvement as the predictor variable and whether a given substance was ever used as the grouping variable. Results supported the hypothesis such that whether youth ever used a given substance was significantly predicted by the level of parental involvement ($p < .008$; cf. Table 2; nonparametric Mann-Whitney *U* tests confirmed these results). Significant for all substances, these results showed that higher perceived parental involvement buffered youth from the absolute initiation of substance use.

The second hypothesis—whether parental involvement predicted the age of the first use of a given substance—was evaluated using a Pearson product moment correlation (cf. Table 3); only five variables were analyzed as the survey failed to include an “age-of-first-use” measure for pipe tobacco. Using a Bonferroni correction, results showed a significant

Table 2
Mean Parental Involvement by Adolescent Drug Use

Substance	Had used		Never used		<i>t</i>	<i>p</i>
	<i>M</i> (<i>SD</i>)	<i>n</i>	<i>M</i> (<i>SD</i>)	<i>n</i>		
Cigarettes	5.92 (2.04)	5,055	6.91 (1.73)	11,120	29.94	< .001*
Snuff	6.07 (1.97)	1,062	6.64 (1.88)	15,100	9.64	< .001*
Cigars	5.90 (2.05)	2,604	6.74 (1.82)	13,566	19.56	< .001*
Pipe Tobacco	5.92 (1.99)	470	6.63 (1.88)	15,704	8.01	< .001*
Chewing Tobacco	6.13 (1.91)	750	6.63 (1.88)	15,421	7.04	< .001*
Alcohol	6.01 (1.99)	7,220	7.08 (1.65)	8,948	36.38	< .001*

Note. $N = 18,294$; Results were confirmed with nonparametric Mann-Whitney *U* tests.

* $p < .008$ (Bonferroni corrected).

PERCEIVED PARENTAL INVOLVEMENT

Table 3

Parental Involvement and Age of First Tobacco and Alcohol Use

Substance	<i>M (SD)</i>	<i>n</i>	<i>r</i>	<i>p</i>	Skewness	Kurtosis
Cigarettes	12.37 (2.54)	4,859	.02	.149	-0.78	0.71
Snuff	13.23 (2.73)	987	.02	.497	1.52	3.13
Cigars	13.74 (2.13)	2,480	-.03	.206	-1.11	1.82
Chewing Tobacco	13.05 (2.71)	710	.06	.141	-1.07	1.06
Alcohol	13.04 (2.39)	6,990	.06	< .001*	-1.33	2.82

Note. *N* = 18,294; Results were confirmed with nonparametric Spearman correlations.

* *p* < .004 (Bonferroni corrected).

correlation between parental involvement and age of first alcohol use ($r(6,988) = .057, p < .001$) (a nonparametric Spearman’s rho correlation supported these results), meaning youth began to drink at a later age if their parents were perceived to be more involved in their lives. All other tests were non-significant ($p > .05$).

The third hypothesis—whether parental involvement was related to frequency of tobacco use (over 30 days) and alcohol consumption (over 12 months)—was evaluated using a Pearson product moment correlation (cf. Table 4). A Bonferroni correction (.004) was applied to avoid elevated Type I errors. Specifically, parental involvement significantly predicted lower frequency of both cigarette consumption ($r(2,011) = -.078, p < .001$) and alcohol consumption ($r(5,590) = -.122, p < .001$), meaning youth were comparatively lighter drinkers and smokers when their parents were more involved in their lives. Although the two correlations are decidedly small, they remained significant. Thus, it is important to consider the relative size of the reported effects. All other tests were non-significant ($p > .05$).

Discussion

The present study examined the relationship between perceived parental involvement and both tobacco use and alcohol consumption among youth aged between 12 and 17 years in a large community sample. Three hypotheses was tested concerning the correlation between greater parental involvement and the absolute use of a given substance, the age of first initiation of a given substance and the frequency of use of a given substance. Results supported the first

hypothesis—that absolute use of a given substance (i.e., cigarettes, snuff, cigars, pipe tobacco, chewing tobacco, and alcohol) was significantly related to parental involvement. Specifically, higher parental involvement predicted a lower likelihood of using alcohol and all tobacco products. Although the use of these substances occurs at a different time period in each individual’s life, the ultimate use—especially early-stage use—predicts greater substance use, experimentation, and chronic use. This may ultimately result in either abuse or addiction, which parental involvement may play a sizeable role in preventing (Campbell et al., 2016).

By comparison, Day and Cramer (2018) similarly uncovered a significant role of parental involvement in the absolute use of various illicit substances. The authors found parental involvement specifically affected only the initial use of various drugs (i.e., marijuana, cocaine, heroin, ecstasy, lacquer thinner, and spray paints), and did not impact the initial use and/or frequency of using any of the other illicit substances measured. The authors suggested that parents should assist their children through greater daily involvement with them as it helps to safeguard them from experimenting with substances such as drugs, tobacco, and alcohol.

The second hypothesis was partially supported, wherein greater parental involvement predicted consumption of alcohol (but not tobacco) at a later age. Previous research suggests that individuals who begin drinking before the age of 15 are more likely to be at risk for long-term substance use (National Research Council, 2004). For instance, those who

Table 4

Parental Involvement and Frequency of Drug Use Within the Past Year

Substance	<i>M (SD)</i>	<i>n</i>	<i>r</i>	<i>p</i>	Skewness	Kurtosis
Cigarettes	14.93 (12.11)	2,013	-.08	< .001*	0.15	-1.72
Snuff	11.78 (11.31)	334	.05	.330	0.65	-1.22
Cigars	4.96 (6.42)	784	-.02	.528	2.33	5.13
Pipe Tobacco	1.77 (0.42)	470	.01	.857	-1.26	-0.42
Chewing Tobacco	9.36 (10.20)	203	.02	.775	1.11	-0.28
Alcohol	38.81 (59.15)	5,592	-.12	< .001*	2.57	7.49

Note. *N* = 18,294; Results were confirmed with nonparametric Spearman correlations.

* *p* < .004 (Bonferroni corrected).

begin to drink alcohol after the legal drinking age have a 10% chance of developing future alcohol dependence. However, individuals who begin to drink alcohol at the age of 15 years or younger have a 40% chance of developing these issues (National Research Council, 2004). Another study revealed that parents engaged in their child's life could delay the onset of alcohol consumption. Since the risk of consumption stays during the adolescent development, this could be an important protective factor (Kosterman, Hawkins, Guo, Catalano, & Abbott, 2000). However, because youth exposed to friends and family who consume alcohol are also at higher risk for early initiation, parental involvement alone may not be the key protective factor.

By comparison, Day and Cramer's (2018) study of drugs rendered different results: greater parental involvement was not associated with a delayed onset for any of the illicit substances tested. Also, the authors highlighted the importance of further and more broadly examining this hypothesis. These results may be alarming to parents who believe their discipline, love, and support will protect their children from early use of alcohol and tobacco (McLaughlin et al., 2016). Future studies should expand on this research question and address how parental involvement can extend its impact, and whether other factors (such as environmental and social elements) pose a greater impact on substance use in terms of frequency of use and age of first use (McDonough, Jose, & Stuart, 2016). For instance, a series of indirect factors (e.g., parental involvement in school activities, sporting events, Parent Council) may themselves be impactful on youth social outcomes. Moreover, children with innately difficult temperaments, insecure attachment issues, and uncontrolled aggression are prone to negative parental and household consequences, raising the probability of negative substance use consequences (National Institute on Drug Abuse, 2016). Additionally, such risk factors tend to be interrelated, resulting in an accumulation of risk factors. Likewise, youth may also have protective factors, such as good maternal nutrition, parents who are highly responsive during infancy, acquire behavioural control during the preschool years, and an attained ability to transition to different stages of life (such as from grade school to high school). Internal protective factors may include intelligence and an easy temperament, whereas external factors may include parental warmth, consistency, praise, routine, and opportunities for social interaction and physical exercise (National Institute on Drug Abuse, 2016). Such explorations can examine correlating factors as well as causal factors. Thus, do internal factors, such as personality traits, exert a greater influence on youth substance use, frequency, and age of first use?

The third hypothesis evaluated the relationship between parental involvement and frequency of substance use—assessed across a 12-month period for alcohol consumption and across a 30-day period for tobacco products. Results partially supported this hypothesis, wherein less parental involvement was reported by youth with greater consumption of alcohol and cigarettes (but not snuff, cigars, pipe and chewing tobacco). However, unlike the present study, Day and Cramer (2018) found no relationship between parental involvement and frequency of illicit drug use. They suggested that the involvement of parents in the lives of their children could prevent the absolute use of a substance. However, once initiated, that same involvement could not buffer against volume of use. Arguably, preventing initiation of the use of a substance can aid in limiting excessive use and the possibility of using more severe substances. For example, if the initiation of marijuana use can be controlled through parental involvement, then the experimentation of a harsher drug, such as heroin, could likely be circumvented (Day & Cramer, 2018). Another study (with 1,217 respondents aged between 15 and 18 years; Lipperman-Kreda, Gruenewald, Bersamin, Mair, & Grube, 2017) examined the impact of parental control on youth drinking in relation to context and frequency, and showed that the more often adolescents reported going to restaurants, bars/nightclubs and outdoor places, the more frequently they consumed alcohol. In addition, the study revealed that the extent of parental control and involvement can be successful in limiting this pattern of alcohol consumption if the parents are able to restrict their children from those particular environments (Lipperman-Kreda et al., 2017). Criss et al. (2015) also explored the impact of parental solicitation, child disclosure, and parental involvement in relation to youth alcohol consumption. They found that parental involvement was significantly associated with lower levels of substance use in youth. Future research would do well to examine efforts to help reduce the frequency of substance use in youth, particularly those left at greater risk due to lower parental involvement.

It is worthwhile to note that parental involvement was positively associated with alcohol initiation, age of first use, and frequency. However, the results of the present study—concerning tobacco products—revealed that parental involvement chiefly impacts its absolute initiation across various products; and frequency of use for cigarettes only. These results invite further research on how parental involvement directly or indirectly impacts tobacco use and alcohol consumption. More specifically, the question remains about what are the precise mechanisms by which frequency of cigarette use (and not snuff, cigars, pipe or chewing tobacco) is tied to parental involvement.

Limitations and Future Directions

Despite the present study's strengths, including a large representative community sample and high face validity and generalization, several limitations can be highlighted that they might encourage future research. First, the current study borrowed heavily from Baumrind's (1991) theory of parenting styles. Although it serves as a foundational basis, the theory appears to be overly parsimonious. That is, two dimensions (*warmth* and *discipline*) crossed to produce four parenting styles will arguably miss the finer variations in child-rearing practices. For instance, we speculate that greater parental involvement is correlated with substance use; however, what specific behaviors constitute parental involvement? Perhaps elements such as warmth, support, supervision, communication, and genuine interest in the child's well-being all serve as contributing factors in protecting youth from harmful substance use consequences. One may also consider a more in-depth definition for each element. For example, is parental warmth a physical interaction between the parent and the child or is it chiefly verbal? Parental involvement plays a role in affecting a child's trajectory in regard to substance use, but does peer pressure, poverty, or possibly genetic disposition play a greater role? Moreover, the child's perceived notion of security provided by the parent may be relevant with respect to the child's impending trajectory in the world of substance use. Arguably, we may lean on other foundational roots set by Harlow's early experiments in primates' (i.e., Rhesus monkeys) exploration following early exposure to isolation; specifically, young monkeys were more willing to explore their environment with the confidence that their mother was available to provide comfort (Buzzanell, 2017).

Second, although the present study is relevant to current research and produces significant results for the hypotheses tested, the effect sizes remain small with some correlations explaining as little as 3% of the variance. Future studies are invited to identify factors that account for the outstanding 97% of unexplained error variance using a variety of social and family predictors.

Third, the archival data analyzed were collected in 2004; more recent data would prove valuable in an effort to substantiate these hypotheses further. Indeed, Johnston, O'Malley, and Bachman (1987) concur, citing the inevitable adolescent cultural changes occurring throughout the course of an evolving society. Alongside cultural changes, substance use, including alcohol and tobacco use, might change with evolving social and historical trends. Parenting practices such as attitudes towards spanking or access

to electronic internet-capable devices might similarly play a role in this change. Furthermore, within a 14-year period, significant social changes will have transpired and have affected adolescent culture.

Fourth, parental involvement was assessed using an author-generated inventory, which was not previously validated. Whereas the items offered face validity, the modest inter-item correlations and resulting internal consistency estimates (in the mid-60s) should press the authors (and future researchers) to consider fashioning additional and better-defined items to hone the measurement of the construct. Presently, all nine of the items was maintained so as to enhance the content validity (i.e., comprehensiveness) of the instrument. One may wish to explore additional dimensions of parental involvement in youth living, such as attending sporting events or science competitions, volunteering on high school parent council, and participation on annual field trips.

A fifth limitation is the inability of the archival data to unpack the association between parental involvement and tobacco use beyond the time the study was conducted. As previously stated, there remains a gulf in the literature connecting substance use and social development dependent on parenting; this aspect would serve an interesting and more multidimensional approach to understanding the surrounding factors affecting substance use. Kuczynski (2012) demonstrates the importance of such a link by emphasizing that socialization—which is predominately customized and molded onto the child by the parents—also includes unintentional consequences. For instance, punitive parenting styles and negative home environments can promote adverse trajectories, resulting in fewer accomplishments and greater antisocial behaviours. Certainly, the traditional theories of socialization that incite current research on the relationship between parental instruction and a child's social development are perpetual and determinative (e.g., Kuczynski, 2012). Although youth are surrounded by other sources of influence, parents and guardians are considered early movers of their child's socialization.

Finally, the survey designers neglected to ask respondents about other family members who may serve as guardians or familial role models. Future researchers are invited to expand on the present study while avoiding the aforementioned limitations. With enhanced reliability and generalization, future studies should hope to significantly contribute to the understanding of how adolescents are affected by tobacco and alcohol use and how parental involvement can act as a protective factor. Moreover, a longitudinal study should prove beneficial so as to reveal changes in the impact of parental involvement on tobacco and

alcohol use across subsequent years. Whereas the present research is a correlational, self-selected study, future studies delve into the causal relationship between the variables tested. Based on the present study, one may speculate a more exhaustive evaluation of causal effects amid further meticulous definitions of parenting varieties impacting substance use.

Conclusion

In summary, this study helps to address a salient question: does a parent's involvement in their child's daily life offer a barrier to tobacco and alcohol use? Results from analysis of this large community sample suggest the role of parental involvement remains relatively important, specifically with respect to 1) ultimate initiation of use for both alcohol and tobacco products; 2) age of initiation for alcohol only; 3) frequency of use for both alcohol and cigarettes only.

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