

Letting Children Sip

Understanding Why Parents Allow Alcohol Use by Elementary School-aged Children

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Objectives: To investigate prosipping beliefs about alcohol among parents and the relations among these beliefs, parents' alcohol-specific attitudes and practices, and children's reports of initiation of alcohol use.

Design: Telephone interview study of parent-child dyads. Data for the present study are from the baseline interviews of a 4-year intervention trial.

Setting: Southeastern United States.

Participants: One thousand fifty pairs of mothers or mother surrogates and their third-grade children who were recruited for the 4-year intervention trial.

Main Outcome Measures: Key measures from parents included prosipping beliefs (ie, beliefs that sipping alcohol has protective consequences for children), attitudes about children's sipping, and parenting practices that affect children's opportunity to try alcohol. The key measure from children was experience sipping beer, wine, or other types of alcohol.

Results: The belief among mothers that allowing children to sip alcohol can have protective consequences for children, including making children less likely to drink as adolescents and making them better at resisting peer influence to drink, ranged from approximately 15% to almost 40%. Alcohol use was reported by 32.8% of children. A strong, significant association was found between parental prosipping beliefs and children's reported alcohol use.

Conclusions: The notion that early exposure to alcohol can be beneficial has a strong foothold among some parents of elementary school-aged children. More research is needed to understand how parents acquire prosipping beliefs and to test messages that effectively modify such beliefs and associated prosipping attitudes and practices among parents.

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ALCOHOL USE BY ELEMENTARY school-aged children is underresearched. A handful of studies show that a substantial minority of children report having sipped or tasted alcohol.¹⁻⁶ Among 8- to 10-year-old children, estimates of having sipped alcohol range from 20% to more than 50%.¹⁻⁶ Childhood sipping of alcohol (child sipping) almost invariably takes place in the family context, most often when children taste drinks that belong to a parent.⁶⁻¹⁰ Few children younger than 11 years report alcohol use, other than religious use, outside the family context.^{1,5,6}

Whether early sipping in the family context has protective, harmful, or no consequences for children's later alcohol use has been rarely investigated, but available findings suggest that an early introduction to alcohol is not protective. Jackson and col-

leagues¹¹ reported that, compared with abstinent peers, fifth-grade children whose parents allowed them to have alcohol were twice as likely to report recent alcohol use in seventh grade. Donovan and Molina¹² found that sipping or tasting alcohol by 10 years of age predicted having a drink of alcohol by 14 years of age, even after controlling for psychosocial proneness to engage in problem behavior.

Although it is clear that the family is the primary context for child socialization about alcohol use, we know very little about the families in which child sipping occurs. Child sipping of adults' drinks may occur with little parental thought or concern about possible consequences. On the other hand, some parents may purposefully introduce children to alcohol because they believe that allowing early sips is beneficial. Donovan^{4(p201)} suggested that parents who undertake "precocious so-

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cialization into alcohol use” do so purposefully because they believe that introducing children to alcohol use in a family context can inoculate them from problem drinking later in life.

Anecdotal evidence from the popular press suggests that inoculation is one of several benefits that parents might believe result from allowing children to sip alcohol. More than 300 comments from parents who responded to articles on this topic in the *New York Times*¹³ and *Wall Street Journal*¹⁴ identified the following multiple beliefs that support a prosipping perspective: Allowing children to sip is a deterrent because they will not like the taste. Children are curious and allowing them to sip eliminates the “forbidden fruit” appeal of alcohol, again making them less likely to want it. Allowing sipping teaches children that alcohol use is nothing more than a normal part of our culture, a lesson that discounts the appeal of drinking. Children’s long-term risk of alcohol misuse is genetically determined; allowing children to sip therefore has little influence on later risk of alcohol misuse or abuse. Finally, because drinking is widespread among adolescents, prohibiting children from sipping is pointless. This set of prosipping beliefs complements the inoculation belief, that is, children who learn about alcohol use at home will be disinclined to misuse alcohol as teenagers. These parent comments, although not from a research sample with known characteristics, suggest that parents can hold multiple prosipping beliefs, enough to engender a general prosipping attitude and related practices.

Of primary interest in this report is whether parents purposefully introduce children to alcohol and, if so, why? Given our research interest in early-onset alcohol use and intrigued by the array of prosipping beliefs expressed by parents,^{13,14} we address these questions: (1) Are prosipping beliefs commonly held when assessed within a research sample of parents, and do prosipping beliefs vary by parents’ sociodemographic characteristics? (2) Do such beliefs predict a positive attitude toward allowing children to sip and prosipping practices among parents? (3) Are parents’ prosipping beliefs associated with children’s reports of sipping drinks with alcohol? We address these questions in a sample of 1050 parents and their third-grade children, drawn from elementary schools in the southeastern United States.

Expectancy-value models^{15,16} posit that people hold multiple beliefs about a single action that correlate significantly with their attitude regarding the favorability or acceptability of that action. Attitude is assumed to be logically consistent with the underlying beliefs and to predict consequent behaviors. Consistent with expectancy-value models, we expect to find that parents’ beliefs about the consequences of child sipping will be associated significantly with their attitudes about child sipping and prosipping practices and with child sipping status.

METHODS

STUDY SAMPLE

The sample consisted of 1050 pairs of mothers or mother surrogates and their third-grade children (mean [SD] child age, 9.2 [0.4] years) who were recruited for a 4-year randomized

trial of an alcohol use prevention program. Data for the current cross-sectional study are from baseline interviews with the mothers and children. Families were recruited from 72 school districts located in North Carolina (n=68), South Carolina (n=3), and Tennessee (n=1); the districts provided permission for recruitment materials to be distributed to families but were not otherwise involved in the research.

A total of 2557 parents submitted a consent form and intake screener; 1193 families did not meet initial inclusion criteria, leaving 1364 potentially eligible families. The 1193 ineligible families had another child 13 years or older (n=677), had no adults who had consumed alcohol during the preceding 3 years (n=414), had language barriers to survey completion (n=36), did not have a child in the third grade (n=25) or living with a mother or a female guardian (n=24), or did not have complete eligibility data (n=17). Of the 1364 eligible families, 1050 (77.0%) mother-child pairs were interviewed. Of the remaining 314 families, 160 (51.0%) were never available by telephone, 76 (24.2%) provided only a child interview, and 78 (24.8%) refused.

SURVEY PROTOCOL

A team of 15 trained interviewers used institutional review board–approved protocols to obtain interview data from mothers or mother surrogates and children. The 25-minute parent interview followed a standard adult telephone interview protocol. Each child’s interview, also 25 minutes, began by asking parents to provide verbal consent (supplemental to their signed consent) and, subsequently, children to assent to interview.

MEASURES

Mothers’ Alcohol-Specific Beliefs, Attitudes, and Practices

Eight items measured the mothers’ beliefs about the consequences of allowing children to sip alcohol (**Table 1**). We used a 4-point scale ranging from “strongly disagree” to “strongly agree.” We analyzed the items using a maximum likelihood exploratory factor analysis with commonality estimates set to the squared multiple correlation of each variable with all other variables. Examination of the eigenvalues and scree plot showed that only 1 factor should be extracted. All factor loadings were greater than 0.61. We therefore averaged responses to the 8 items to create a summary scale, the Prosipping Beliefs Scale, and computed reliability (Cronbach α =0.89). Higher values indicate a belief system favoring sipping.

The following 3 items assessed mothers’ attitudes about child sipping: the acceptability of one’s own child sipping alcohol, the acceptability of sipping among children generally, and the age at which it is acceptable for children to sip alcohol. Factor analysis of these items indicated that they could be averaged for a summary measure; all factor loadings exceeded 0.50 (Cronbach α = 0.64). Each item had 4 response categories, with higher values indicating a more negative attitude toward child sipping (mean [SD], 3.49 [0.69]).

Four indicators of mothers’ alcohol-specific socialization practices assessed permissiveness about the child’s alcohol use, family rules about children’s alcohol use, perceived children’s access to alcohol at home, and parents’ alcohol use. The indicator of permissiveness was based on 4 items measuring parents’ frequency of allowing the child to sip alcohol and parents’ willingness to provide a sip if the child requested one. We averaged responses, all on a 4-point scale, after confirming the appropriateness through an exploratory factor analysis; all loadings exceeded 0.58 (Cronbach α = 0.73). Higher values indi-

Table 1. Agreement or Disagreement With Belief Statements About Protective Consequences of Sipping in 1050 Mothers of Third-Grade Children

Prosipping Belief Statement	No. (%) of Mothers ^a			
	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
Letting children find out what alcohol tastes like will make them less likely to want to taste it again (n = 1029)	67 (6.5)	189 (18.4)	208 (20.2)	565 (54.9)
Children who learn to sip alcohol at home will be better at resisting peer pressure to try alcohol (n = 1020)	59 (5.8)	164 (16.1)	235 (23.0)	562 (55.1)
If they drink small amounts of alcohol at home, children can learn how to be responsible drinkers (n = 1037)	37 (3.6)	128 (12.3)	187 (18.0)	685 (66.1)
If parents don't let children try alcohol at least once, children will be more tempted by alcohol as a "forbidden fruit" (n = 1029)	116 (11.3)	247 (24.0)	242 (23.5)	424 (41.2)
Letting children younger than 12 years have sips or tastes of alcohol is a safe way to introduce them to alcohol (n = 1036)	38 (3.7)	124 (12.0)	166 (16.0)	708 (68.3)
European families have less trouble with alcohol because children learn to drink at home at an early age (n = 835)	60 (7.2)	181 (21.7)	239 (28.6)	355 (42.5)
If parents tell children they are not allowed to have any alcohol, they will only want it more (n = 1031)	93 (9.0)	306 (29.7)	305 (29.6)	327 (31.7)
Children who sip small amounts of alcohol at home with parents will be less likely to experiment with risky drinking in middle school (n = 1013)	60 (5.9)	203 (20.0)	326 (32.2)	424 (41.9)

^aItem sample sizes vary because of exclusion of "don't know" responses.

cate greater permissiveness about children's alcohol use (mean [SD], 1.23 [0.44]).

Family rules about children's alcohol use were measured using 2 items that allowed the construction of the following 3 response categories: the mother reported having alcohol use rules and the specific rule that the child is never allowed to sip beer, wine, or other alcohol; the mother reported having rules but not a specific antisipping rule; and the mother reported having no rules. Higher values indicate stricter rules (mean [SD], 1.28 [0.95]). Parent perceptions of the child's access to alcohol at home were measured by 1 item with 4 response categories ranging from "very easy" to "very hard"; higher values indicated more difficult access (mean [SD], 3.09 [1.11]). Parents' alcohol use was measured by the average frequency of drinking in the past month by the parents in the household. Values ranged on a 6-point scale from "none at all" to "almost every day" (mean [SD], 2.50 [1.23]).

Child Sipping Status

Children were asked whether they had ever had even 1 taste or sip of beer, wine (excluding wine as part of a religious service), or any other kind of alcohol. Children also were asked whether they had ever sipped beer, wine, or other alcohol at family celebrations, such as weddings or parties. In addition to these questions, all of which required children to directly acknowledge having had alcohol, children were asked whether their mother or another adult from home had ever given them a sip or a taste of alcohol. Approximately one-third of children (344 [32.8% of the sample]) answered affirmatively to any alcohol use. Of these, most children (291 [84.6%]) directly acknowledged having sipped; the remaining 53 (15.4%) answered no to all lead questions but subsequently affirmed having been given a sip. Because the last group of children did not acknowledge sipping in response to direct questions, they might differ in how much they have internalized their experience. We therefore use the following 3-category measure of children's sipping status: strongly internalized having sipped (ie, readily recalled and acknowledged sipping), moderately internalized having sipped (ie, reported never having sipped but later reported having been given a sip); and abstaining (ie, no report of sipping).

STATISTICAL ANALYSIS

We determined the mean and distribution in the sample of mothers' beliefs about the consequences of child sipping and tested whether there were differences across mothers in their beliefs as a function of sociodemographic characteristics, using unpaired *t* tests and analysis of variance. We examined correlations between mothers' beliefs about the consequences of sipping and mothers' attitudes and practices specific to child sipping. Finally, we examined the relation between mothers' prosipping beliefs and children's reported sipping behavior, using a proportional odds model because of the ordered categories of the dependent measure, child sipping. After assessing the appropriateness of the model, we examined the relation between mothers' prosipping beliefs and child sipping, controlling for sociodemographic characteristics and for measures of mothers' attitudes and practices specific to child sipping. All analyses were conducted using commercially available software (SAS, version 9.2; SAS Institute Inc).

RESULTS

RESEARCH QUESTION 1

The mothers' agreement with each of the 8 beliefs about allowing children to sip alcohol is given in Table 1. A substantial minority, ranging from approximately 15% to almost 40% of mothers, strongly or somewhat agreed that early sipping can be beneficial. Mothers were most likely to believe that keeping children from sipping alcohol will make them want it more and will increase their focus on alcohol as a "forbidden fruit." They were least likely to believe that allowing sipping was a safe introduction to alcohol and a way to learn about responsible drinking. All items, however, correlated strongly with each other and formed a unidimensional scale. The overall mean score on the Prosipping Belief Scale was 1.82 (SD, 0.70), with values ranging from 1 to 4 (strongly agree). The mean value for the quartile of mothers who believed most

Table 2. Sample Sociodemographic Characteristics and Relationships Between Sociodemographic Characteristics and Mean Prosipping Beliefs in 1050 Mothers of Third-Grade Children

Characteristic	Mothers, % ^a	Prosipping Belief Scale Score, Mean (SD)	P Value
Family structure			
Mother only	15.0	1.81 (0.71)	.38
Mother and other adult caretakers	85.0	1.87 (0.69)	
Mother's race/ethnicity			
White non-Hispanic	69.0	1.87 (0.72)	<.001 ^b
Black non-Hispanic	21.3	1.63 (0.58)	
Hispanic	4.6	1.84 (0.79)	
Other non-Hispanic	5.2	1.93 (0.74)	
Mother's educational level			
High school graduate or less	15.1	1.72 (0.68)	<.001 ^c
Some college or vocational school	35.7	1.74 (0.65)	
College graduate or more	49.2	1.91 (0.74)	
Mother's employment			
None	29.0	1.73 (0.65)	.04 ^d
1-39 h/wk (part-time)	29.9	1.86 (0.69)	
≥40 h/wk (full-time)	41.1	1.86 (0.75)	
Child's sex			
Female	51.8	1.84 (0.72)	.36
Male	48.2	1.80 (0.69)	

^aPercentages have been rounded and might not total 100.

^bThe mean score for black non-Hispanic mothers is significantly lower than the mean scores for white non-Hispanic and other non-Hispanic mothers.

^cThe mean score for college graduate or higher is significantly higher than the mean scores for mothers with some college/vocational school and high school graduates or less.

^dThe mean scores for mothers with full-time or part-time employment are significantly higher than the mean score for mothers who do not work for pay.

strongly that sipping can be protective was 2.25; the mean for the quartile who most strongly disagreed with this perspective was 1.25.

Mean values on the Prosipping Beliefs Scale varied significantly by the mothers' race/ethnicity, educational level, and employment (**Table 2**). White non-Hispanic and other non-Hispanic mothers reported higher (more prosipping) mean scores than black non-Hispanic mothers. Women who had graduated from college and those who were employed had higher mean scores than those with less education or who did not work for pay.

RESEARCH QUESTION 2

Prosipping beliefs were significantly correlated, in the expected directions, with mothers' attitudes about children's alcohol use and with their alcohol-specific socialization practices. Mothers who believed strongly that allowing child sipping can be protective were less likely to disapprove of children's alcohol use ($r = -0.57$ [$P < .001$]), to have strict rules about children's alcohol use ($r = -0.13$ [$P < .001$]), or to perceive that it would be hard for children to have access to alcohol at home ($r = -0.21$ [$P < .001$]) and were more likely to be permissive about child sipping ($r = 0.63$ [$P < .001$]). In addition, mothers' prosipping beliefs were positively related to the combined

indicator of their own and the other household parent's (as applicable) frequency of alcohol use ($r = 0.18$ [$P < .001$]).

RESEARCH QUESTION 3

To establish the appropriateness of testing a proportional odds model, we compared results of 2 binary logistic regression models (strongly and moderately internalized sippers vs abstainers and strongly internalized sippers vs moderately internalized sippers and abstainers). Similar parameter estimates were obtained in both models, indicating proportionality. The score test for the proportional odds assumption in a bivariate model predicting child sipping from the mothers' prosipping beliefs was not significant ($\chi^2 = 0.14$ [$P = .71$]), also indicating proportionality.

Mothers' prosipping beliefs were significantly related to child sipping status in the proportional odds model (odds ratio, 2.29 [$P < .001$]). Mothers' prosipping beliefs remained a significant predictor of child sipping after entering the mothers' race/ethnicity, educational level, and employment status (odds ratio, 2.21 [$P < .001$]) and after entering these sociodemographic characteristics and all other parent variables (odds ratio, 1.38 [$P = .01$]). The odds of children being in a higher rather than a lower category of sipping increase by 38% for every 1-unit increase in their mothers' prosipping beliefs.

COMMENT

This study, to our knowledge, is the first to investigate prosipping beliefs among parents of elementary school-aged children and the relations between these beliefs and children's reports of having initiated alcohol use. Consistent with expectancy-value models,^{15,16} mothers' beliefs about the consequences of sipping alcohol during childhood correlated as expected and significantly with their attitude about alcohol use by children and with their alcohol-specific practices, such as providing sips. That parents' prosipping beliefs were positively and significantly associated with child sipping merits attention because early onset is a known primary risk factor for problem drinking during adolescence.¹⁷⁻¹⁹

We developed a reliable Prosipping Beliefs Scale and found that a substantial proportion of mothers believe that school-aged children can benefit from sipping drinks with alcohol. At least 1 in 4 mothers believed that sipping is a deterrent because children will not like the taste and because sipping will remove the "forbidden fruit" appeal of alcohol. Fully 40% believed that not allowing children to have alcohol will only increase their desire to have it. This result suggests that a substantial proportion of parents do not believe that it is efficacious to establish rules against child alcohol use. At least 1 in 5 parents believed that children who sip alcohol will be better at resisting peer pressure to drink and less likely to experiment with risky drinking in middle school. This finding indicates that many parents mistakenly expect that the way children drink at home, under parental supervision, will be replicated when children are with peers. This expectation is refuted by recent studies that link adolescent brain development with adolescents' propensity to disregard home drinking norms when they are with peers.^{20,21} Public health education programs are needed so

that more parents know that home drinking norms do not curtail risky drinking in peer contexts.

Prosipping beliefs were more strongly held among white women and among more highly educated women. The likelihood of children sipping alcohol was also more likely in these sociodemographic subgroups. We do not have an explanation for this finding. Because alcohol use is more prevalent within these sociodemographic subgroups, it might also be more socially acceptable within them, resulting in parents who are more tolerant of underage drinking. Alternatively, women in these subgroups might be more likely than their counterparts to try to prevent underage drinking and, we would argue, mistakenly believe that an early introduction can help prevent later problem drinking. Replication of these findings and, if indicated, additional research are needed to understand why prosipping beliefs vary by race/ethnicity and educational attainment.

This study has only scratched the surface of a potentially very important public health issue. Key questions for future research include the following: Are parents who endorse prosipping beliefs more permissive about alcohol use by adolescents? Do aspects of parental modeling of alcohol use moderate any association between childhood sipping experience and later alcohol use? Moreover and fundamentally, given the very small number of longitudinal studies that have been conducted,^{3,11,12} research is needed that examines whether and for whom child sipping in a family context leads to risky alcohol use in adolescence.

This study is limited by use of a nonprobability sample, which precludes generating a prevalence estimate of prosipping beliefs among parents or sipping alcohol among children. Having a sample from the Southern region of the United States and one that overrepresents college-educated parents limits generalizability. In addition, but as appropriate for the study purpose, sample generalizability is limited by excluding families in which no adults in the household had consumed alcohol even once in the preceding 3 years. However, national estimates show that less than 10% of adults in the age range of our participants have never had alcohol.²² The reliability of the measure of mothers' attitudes about child sipping was low. The cross-sectional design limits the report's aims to describing sample-specific findings; longitudinal data are needed to test the implications of parents' prosipping beliefs and practices for child sipping and, over time, children's alcohol use.

In conclusion, the notion that early exposure to alcohol can be beneficial has a strong foothold among some parents. Such beliefs are positively related to parents' attitudes and practices about child sipping and to children's reports of sipping drinks with alcohol. More research is needed to understand how parents acquire prosipping beliefs and to test messages that effectively modify such beliefs and associated prosipping attitudes and practices among parents of elementary school-aged children.

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