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A Pilot Intervention to Increase Parent-Child Communication About Alcohol Avoidance*

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Abstract

Enhancing parent-child communication regarding alcohol use through educational print correspondence is a potentially cost-effective tool in health promotion. The purpose of this pilot study was to examine whether a series of postcards addressing specific alcohol risk and protective factors, sent to the parents/guardians of preadolescents in two different school settings, influenced parent-child communication regarding alcohol use. Subjects for this study included parents of participating 6th grade students attending one neighborhood (N=262) and one magnet (bused) (N=388) inner-city school. Participating students were randomly assigned to the intervention or control group. Baseline data were collected from students, enabling the intervention to be tailored to students' individual needs. Parents of students assigned to the intervention were mailed up to 10 prevention postcards over five weeks. Parents completed a 10-item telephone survey eight weeks after implementation of the prevention postcards. The overall parent response rate was 74% (N=478). Results of this pilot intervention found that postcards increased parent-child communication regarding alcohol use, but that these effects differed by school setting and race. Although significant effects were found for the intervention group, further analysis revealed that effects were found only for White parents at the magnet school. Discussion of these differences and implications for research and educational programming are provided.

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Introduction

Alcohol use among adolescents in the United States is a widespread problem encompassing multiple health, social, and economic realms. Adolescent alcohol consumption is associated with a broad range of health damaging behaviors which include drinking and driving, interpersonal violence, unprotected sexual intercourse, abuse of other illicit drugs, destruction of private property, and lower academic achievement (U.S. Department of Health and Human Services, 1997). Although it is illegal for children and adolescents to procure alcohol, access is widespread. A 1994 survey reported approximately 56% of eighth graders have tried alcohol, as have 71% of tenth graders, and 80% of twelfth graders (Johnston, O'Malley, & Bachman, 1997). More alarming is the degree of heavy drinking among adolescents. Fifteen percent of eighth graders, 24% of tenth graders, and 30% of twelfth graders reported engaging in heaving drinking, with heavy drinking defined as five or more drinks in a row at least once in the previous two weeks (Johnston, O'Malley, & Bachman, 1996).

The high risk periods for initiating drug use include transition periods, such as advancing from elementary to middle/junior school. During this stage of early adolescence children are likely to encounter drug use for the first time (National Institute on Drug Abuse [NIDA], 1999). The earlier youth initiate use, the more likely it is drug abuse will occur (Kandel, 1982). The well-documented negative consequences of adolescent alcohol use have made prevention a critical priority for our nation (U.S. Department of Health and Human Services, 1997), particularly during these transition periods (NIDA, 1999).

Preventive intervention programs that are exclusively school based are no longer considered adequate in reducing adolescent alcohol consumption and alcohol related problems (Toomey et al., 1996). Incorporating active parent participation is believed to be an integral component to successful prevention (Elmqvist, Bell, & Associates, 1995; NIDA, 1999). A number of studies indicate that parent-child interaction, parental monitoring of children, and parental communicated disapproval of their child's substance use are important factors associated with youth alcohol and other drug consumption suggesting that preventive interventions need to target both children and parents (Brody, Flor, Hollett-Wright, & McCoy, 1998; Chilcoat & Anthony, 1996; Loveland-Cherry, Leech, Laetz, & Dielman, 1996; McMaster & Wintre, 1996; Reifman, Barnes, Dintcheff, Farrell, & Uhteg, 1998; Yu, 1998). Family interactional theory stresses the importance of developing parent-adolescent attachment to positively influence the prevention of drug use (Brook, Brook, Gordon, Whiteman, & Cohen,

1990). The development of children's behavioral values and social skills are strongly affected by parents. Particularly, modeling is essential for developing socially acceptable behavior that will transition into adult life (Spoth, Yoo, Kahn, & Redmond, 1996; Deakin & Cohen, 1986). Furthermore, parental influence can operate as a natural harm-reduction mechanism for safeguarding young drinkers from developing alcohol problems (Thombs, 1997). A more comprehensive strategy including parents in the process of drug prevention is resolute to enhancing drug education programs (Werch et al., 1991).

Consideration of factors influencing parent/guardian participation is necessary for an effective prevention program. Perry and colleagues (Perry, Crockett, & Pirie, 1987) surmise that interventions should employ approaches preferred by parents and also provide sufficient incentives for parental involvement. In addition, effective recruitment of prospective parental participants into family-focused prevention research requires time limits appropriate to adult schedules. While group classes for parents are seen as a useful intervention technique, researchers should consider lengthy time commitments as a possible barrier to recruitment of potential subjects (Spoth & Redmond, 1994). Unfortunately, few studies have examined the role of innovative interventions designed to reach parents using non-traditional formats in conjunction with school-based prevention programs.

Enhancing parent-child communication through inexpensive educational print correspondence is a potentially cost-effective tool for health promotion specialists (Perry et al., 1987). The purpose of this pilot study was to examine whether a series of postcards addressing specific alcohol risk and protective factors, sent to the parents/guardians of preadolescents in two different school settings, influenced parent-child communication regarding preventing alcohol use. The analysis of this intervention piece is part of a larger study examining the efficacy of the Start Taking Alcohol Risks Seriously (STARS) for Families alcohol prevention program (Werch, 1997).

Methods

Sample

Subjects for this study included parents/guardians of participating 6th grade students attending one neighborhood (N=262) and one magnet (bused) (N=388) inner-city school in Jacksonville, Florida. Parents completed a 10-item telephone survey eight weeks after the implementation of the prevention postcards. The overall parent/guardian response rate was 74% (N=478); 59% (N=154) for the neighborhood school and 84% (N=324) for the magnet school.

Of the participating parents/guardians in the neighborhood school, the majority were Black (82%), followed by White (16%), and other racial classifications (3%). Seventy-two percent of those completing the survey were mothers, followed by 12% fathers, 10% grandmothers, and 6% other care givers. Of the adults participating from the magnet school, the majority were White (51%), followed by Black (39%), and other racial classifications (10%). Mothers most often completed the survey (72%), followed by fathers (19%), grandmothers (4%), and other care givers (5%).

Intervention

Participating students were randomly assigned by computer to the intervention or control group. Baseline data were collected from students, enabling the intervention to be tailored to students' individual needs. Parents/guardians of students assigned to the intervention were mailed up to 10 of the prevention postcards during spring of 1997. The number of postcards sent to parents/guardians was determined by their child's responses to the baseline survey.

Each of the 10 postcards, endorsed by a recognized physician in the community, provided a short one or two sentence statement asking parents/guardians to take a few minutes to read and talk about the key fact shown in bold print. Each key fact addressed a specific risk or protective factor for youth alcohol use. Risk and protective factors were generated from the Health Belief Model, Social Cognitive Theory, and Behavioral Self-Control Theory. The constructs of these theories are believed to be salient determinants of movement in the stages of initiating alcohol use and therefore serve as the basis for producing individually tailored intervention content (Werch, Carlson, Pappas, Dunn, & Williams, 1997). For example, the key fact message for the Social Cognitive Theory factor of expectations was worded: "Tell your child that you would be very upset if he/she drank alcohol. Research shows that most kids do **NOT** like their friends to drink alcohol either!"

Postcards were mailed two per week, beginning in January of the spring semester. All postcards in each mailing addressed the same risk or protective factor. If a risk or protective factor was not pertinent to a student, then his/her parents/guardians did not receive a postcard addressing that factor. Parents/guardians were sent an average of 6.49 postcards ($SD = 1.58$). There was no difference in the mean number of cards that went to parents from each school. Postage-paid return postcards were attached asking parents to indicate whether or not they spoke to their child about the key fact on the card. Responses to the item were: 1) yes; 2) no; and 3) I read it but did not talk to my child. The majority of parents in the intervention sent back the

return postcards. Ninety-eight percent of Parents/guardians returning postcards indicated they talked with their child about the information on the cards.

Measures

Parent/guardian data were collected by telephone two months after the last postcard was mailed. The survey was administered by research staff who, after undergoing training to help regulate the pace and modulation of reading the 10-item questionnaire, followed a standardized protocol. Research staff were blind to the respondents' group assignment. To promote honest reporting, parents were informed that all answers would be strictly confidential and that all information was for research purposes only.

The 10-item Parent/Guardian Survey was developed to collect data on stage of initiating parent-child communication about avoiding alcohol, frequency of parent-child communication regarding avoiding alcohol, perceptions about their child's alcohol-related risk factors, expectations about their child's drinking, how many of the prevention postcards they read, and socio-demographic variables, adopted from an earlier study of parent-child communication regarding avoiding alcohol (Werch et al., 1991).

Data Analysis

Data from the parent telephone survey were analyzed using SPSS for Windows 95, Release 7.5 (SPSS Inc, 1995). Chi-squares were used to test for significant associations between parental responses and schools, parental responses and groups, and between parental responses and groups within schools.

Results

School Setting

The intervention was conducted in two inner-city settings, a neighborhood school and a magnet (bused) school. Parents/guardians from the neighborhood school were more likely to be Black (82%) than those at the magnet school (39%), chi square=79.37, 6df, $p=.00$. Neighborhood school parents/guardians were also more likely to have talked with their child about avoiding alcohol during the last 30 days (89%) compared to magnet school parents (81%), chi square=70.91, 4df, $p=.00$. All other survey responses were similar when compared by school setting.

Group

Parents/guardians in the intervention group (63%) were more likely than those in the control group (52%) to have talked with their child about

avoiding alcohol 10 or more times in the past year, chi square = 10.49, 4df, $p = .03$. Intervention parents/guardians (89%) were also more likely to have talked to their child in the last 30 days than control parents/guardians (78%), chi square = 14.78, 4df, $p = .01$. All other survey responses were similar when compared by group.

School Setting and Group

Table 1 shows parent/guardian responses to the phone survey by setting and group. Significant differences between groups were found only for the magnet (bused) school parents/guardians. Magnet school parents/guardians (62%) who received the postcards were significantly more likely to have talked to their child 10 or more times about avoiding alcohol during the last year compared to control parents (48%), chi square = 11.96, 4df, $p = .02$. In addition, intervention parents/guardians (89%) from the magnet school were more likely to have talked to their child during the last 30 days compared to parents not receiving the postcards (74%), chi square = 18.06, 4df, $p = .01$. No other differences were found between groups.

As a significant difference between the two schools was racial composition, posthoc analysis examining the role of ethnicity on intervention effects found that White parents/guardians from the magnet school who received the postcard intervention more frequently communicated with their children about avoiding alcohol during the last year, chi square = 9.61, 4df, $p = .04$, and last 30 days, chi square = 14.54, 4df, $p = .01$, than White control parents/guardians. These results were not found for Black parents/guardians however. Additionally, analysis of frequency of talking with children about alcohol by race regardless of intervention found that Black respondents were more likely to have spoken to their child more frequently in the last 30 days than White respondents, chi square = 39.95, 8df, $p = .00$.

Discussion

Results of this pilot intervention found that postcards increased parent-child communication regarding alcohol use, but that these effects differed by school setting and race. Although significant effects were found for the intervention group, further analysis revealed that effects were found only for White parents/guardians at the magnet school. A significantly greater percentage of White magnet school parents/guardians who received postcards spoke with their child more often in the last year, and more often in the last 30 days, than those who did not receive the postcards. Meanwhile, both control and intervention neighborhood parents/guardians were more than three times as likely to have reported talking with their children 10 or more times in the last 30 days as control and intervention magnet school

Table 1
Parent/Guardian Survey Responses by setting and Group

Item	Neighborhood (N=154)		Magnet (N=324)	
	Intervention (N=76) %	Control (N=78) %	Intervention (N=161) %	Control (N=163) %
Stage of Talking About Alcohol				
Precontemplation	6.7	3.9	2.5	5.5
Contemplation/ Preparation	0.0	1.3	0.6	2.4
Action	9.3	7.8	6.8	6.1
Maintenance	84.0	87.0	90.1	85.9
Frequency of Talking Last Year				
None	3.9	6.4	1.9	5.5*
1-2 times	5.3	3.8	5.0	12.9
3-5 times	9.2	14.1	16.8	19.6
6-9 times	15.8	15.4	14.3	14.1
10 times or more	65.8	60.3	62.1	47.9
Frequency of Talking Last 30 Days				
None	10.5	11.5	11.2	26.4**
1-2 times	17.1	25.6	37.3	38.0
3-5 times	17.1	12.8	26.1	23.3
6-9 times	10.5	9.0	12.4	4.9
10 times or more	44.7	41.0	13.0	7.4
Could your child say No to offers to drink Alcohol?				
Yes	84.2	83.3	77.0	74.8
Maybe Yes	7.9	12.8	13.7	16.0
Maybe No	1.3	2.6	1.9	1.2
No	6.6	1.3	7.5	8.0

Table 1
Parent/Guardian Survey Responses by setting and Group

Would your child drink if he/she was with friends drinking?				
Yes	1.3	0.0	1.2	0.6
Maybe Yes	10.5	11.8	11.2	16.0
Maybe No	15.8	10.5	14.9	19.0
No	72.4	77.6	72.7	64.4
How many of your child's friends drink alcohol?				
None	88.2	84.6	88.1	90.7
A Few	7.9	10.3	9.4	7.5
Some	3.9	3.8	2.5	1.2
Most	0.0	1.3	0.0	0.6
All	0.0	0.0	0.0	0.0
How would you feel if your child drank alcohol?				
Strongly Like	1.3	0.0	0.0	0.0
Like	0.0	0.0	0.0	0.0
Dislike	7.9	10.3	7.5	6.7
Strongly Dislike	90.8	89.7	92.5	93.3

*p = .02; **p = .01

parents/guardians. This is consistent with the findings that significantly more neighborhood parents/guardians were Black, and significantly more Black than White parents/guardians reported talking more frequently to their child about alcohol avoidance in the last 30 days. It is probable that the intervention did not have an impact on these parents/guardians due to a ceiling effect. When analyzed by school and race the majority of both neighborhood and Black parents reported talking frequently to their children about alcohol avoidance regardless of the intervention, so effects were not detected.

It is not clear why this difference appears to exist between subgroups of parents/guardians, but there are several possible explanations. Research has shown that Blacks suffer more frequent and more stable negative consequences from alcohol than do Whites (Caetano, 1997), perhaps compelling Black parents to actively discourage alcohol use. Alcohol use and

problems also increase with poverty (Khan, 1998), more so for Black men than comparable White men (Jones-Webb, Snowden, Herd, Short, & Hannan, 1997). Using free lunch as an indicator of socioeconomic status, over twice as many students from the neighborhood school (80%) came from disadvantaged homes as students from the magnet school (38%). Given the aforementioned findings, magnet school parents, who were less likely to be Black and less likely to be economically disadvantaged, may have been less cognizant of the potential of alcohol risks than other parents/guardians, and therefore more likely to increase prevention communication at home after brief intervention.

Mailing written materials directly to parents/guardians is an efficient and relatively inexpensive means of implementing youth alcohol prevention programs. Postcards are more convenient for parents/guardians than are phone or meeting-based interventions and have the potential to reach a larger audience, especially for inner-city populations. Estimated cost for materials, printing, postage, and staff was \$7.09 per family per intervention. Thus, a brief intervention consisting of postcards may be a cost effective approach to increase prevention communication at home.

Principle limitations of this study warrant that the interpretation of these findings be qualified. First, all measures were self-reported, which may have been inflated due to social desirability to over report parent-child communication. Second, the sample was limited to two inner-city schools reducing generalizability of the findings to other schools and geographic regions. Third, although no parent pretest data were collected for this study, no differences were found between experimental groups on student pretest demographic and alcohol use measures. Finally, the response rate for the magnet school was higher than that for the neighborhood school, making selection bias a possible contributor to between-school differences.

Implications

Only White parents/guardians receiving the postcard intervention at the magnet school demonstrated an increase in the frequency of a parent/guardian talking to their child about alcohol within the last year and the last 30 days. However, Black parents/guardians and neighborhood parents/guardians appear to have been more likely to already be talking to their child about alcohol. Therefore, it may be that brief parent targeted interventions like postcards are primarily efficacious for enhancing parent-child prevention communication among parents/guardians who are not presently engaged in frequent discussions with their children about alcohol use. These differences in parent-child communication about alcohol may be because parents/guardians are less aware of the probability or severity of the

consequences of alcohol abuse in their neighborhood, or lack confidence in their ability to influence their children's drinking.

Further research should attempt to replicate these findings and examine: 1) whether parent-child communication about preventing alcohol use differs across inner-city school settings, and if so, why; 2) the effect of ethnicity in influencing parent-child communication about alcohol and drug prevention at home; 3) the role school setting and ethnicity play in the efficiency of home-based interventions to enhance family prevention communication; and 4) the effect of this type of intervention on parents/guardians of students of various grade levels.

References

- Brody, G., Flor, D., Hollett-Wright, N., & McCoy, J.K. (1998). Children's development of alcohol use norms: contributions of parent and sibling norms, children's temperament, and parent-child discussions. *Journal of Family Psychology, 12*(2), 209-219.
- Brook, J.S., Brook, D.W., Gordon, A.S., Whiteman, M., & Cohen, P. (1990). The psychosocial etiology of adolescent drug use: a family interaction approach. *Genetic, Social, and General Psychology Monographs, 116*(2), 111-267.
- Caetano, R. (1997). Prevalence, incidence, and stability of drinking problems among Whites, Blacks, and Hispanics: 1984-1992. *Journal of Studies on Alcohol, 58*, 565-572.
- Chilcoat, D., & Anthony, J.C. (1996). Impact of parent monitoring on initiation of drug use through late childhood. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*(1), 91-100.
- Deakin, S., & Cohen, E. (1986). Alcohol attitudes and behaviors of freshmen and their parents. *Journal of Student Development, 27*, 490-495.
- Elmquist, D., Bell, T., & Associates (1995). Alcohol and other drug use prevention for youths at high risk and their parents. *Education and Treatment of Children, 18*(1), 65-88.
- Johnston, L., O'Malley, P., & Bachman, J. (1996). *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995, Volume I: Secondary School Students*. Rockville, Maryland: National Institute on Drug Abuse.
- Johnston, L., O'Malley, P., & Bachman, J. (1997). *National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995, Volume II: College Students and Young Adults*. Rockville, Maryland: National Institute on Drug Abuse.
- Jones-Webb, R., Snowden, L., Herd, D., Short, B., & Hannan, P. (1997). Alcohol-related problems among Black, Hispanic, and White men: the contribution of neighborhood poverty. *Journal of Studies on Alcohol, 58*(5), 539-545.

- Kandel, D. (1982). Epidemiological and psychosocial perspectives on adolescent drug use. *Journal of the American Academy of Child Psychology*, 21, 328-347.
- Khan, S. (1998). Alcohol abuse and its relationship with poverty and unemployment: a structural equation modeling approach. *Dissertation Abstracts International*, 58(11), 6280-B.
- Loveland-Cherry, C.J., Leech, S., Laetz, V.B., & Dielman, T.E. (1996). Correlates of alcohol use and misuse in fourth-grade children: psychosocial, peer, parental, and family factors. *Health Education Quarterly*, 23(4), 497-511.
- McMaster, L.E., & Wintre, M.G. (1996). The relations between perceived parental reciprocity, perceived parental approval, and adolescent substance use. *Journal of Adolescent Research*, 11(4), 440-460.
- National Institute on Drug Abuse (1999). Preventing drug use among children and adolescents: a research-based guide. (NIH Publication No. 99-4212). Rockville, MD: Author.
- Perry, C.L., Crockett, S.J., & Pirie, P. (1987). Influencing parental health behavior: implications of community assessments. *Health Education*, 18, 68-77.
- Reifman, A., Barnes, G.M., Dintcheff, B.A., Farrell, M.P., & Uhteg, L. (1998). Parental and peer influences on the onset of heavier drinking among adolescents. *Journal of Studies on Alcohol*, 59(3), 311-317.
- Spoth, R., & Redmond, C. (1994). Effective recruitment of parents into family-focused prevention research: a comparison of two strategies. *Psychology and Health*, 9, 353-370.
- Spoth, R., Yoo, S., Kahn, J., & Redmond, C. (1996). A model of the effects of protective parent and peer factors on young adolescent alcohol refusal skills. *Journal of Primary Prevention*, 16(4), 373-394.
- SPSS Inc. 7.5. (1995). Chicago, IL: SPSS. Inc.
- Thombs, D.L. (1997). Perceptions of parent behavior as correlates of teenage alcohol problems. *American Journal of Health Behavior*, 21(4), 279-288.
- Toomey, T., Williams, C., Perry, C.L., Murray, D.M., Dudovitz, B., & Veblen-Mortenson, S. (1996). An alcohol primary prevention program for parents of 7th graders: the amazing alternatives! Home program. *Journal of Child & Adolescent Substance Abuse*, 5(4), 35-53.
- U.S. Department of Health and Human Services. (1997). *Ninth Special Report to the U.S. Congress on Alcohol and Health*. (NIH Publication No. 97-4017). Rockville, MD: Author.
- Werch, C.E. (1997). Expanding the stages of change: a program matched to the stages of alcohol acquisition. *American Journal of Health Promotion*, 12(1), 34-37.

- Werch, C.E., Carlson, J.M., Pappas, D.M., Dunn, M. & Williams, T. (1997). Risk factors related to urban youth stage of alcohol initiation. *American Journal of Health Behavior*, 21(5), 377-387.
- Werch, C.E., Young, M., Clark, M., Garrett, C., Hooks, S., & Kersten, C. (1991). Effects of a take-home drug prevention program on drug-related communication and beliefs of parents and children. *Journal of School Health*, 61(8), 346-350.
- Yu, J. (1998). Perceived parental/peer attitudes and alcohol-related behaviors: an analysis of the impact of the drinking age law. *Substance Use and Misuse*, 33(14), 2687-2702.