

# Adolescent drinking: A suggestion for future education programmes

## Noriko Cable and Amanda Sacker

Noriko Cable, PhD, is a Research Fellow and Amanda Sacker, PhD, is a Principal Research Fellow in the Department of Epidemiology and Public Health, University College London

The social problem of adolescent drinking has been studied from various perspectives. Factors specific to British adolescent drinking with a gender perspective are needed to be studied to understand this social problem. This study aims to identify gender specific factors related to adolescent drinking behaviour.

### Method

We used data from the 1970 British Cohort Study that were collected at age 16. We extracted demographic information, drinking history and behaviour of the cohort as well as their parents' and best friend's, their reception of alcohol education and details about relationships with their parents and their spare time activities. Demographic variables used were gender, parental social class, a count of family risk factors and lack of material resources. Alcohol related variables were the self-reported amount of alcohol consumed in a week that was later converted into units, attitudes toward drinking, age first tasted alcohol and started to drink with friends, frequency of father's, mother's and best friend's drinking and alcohol education received in the previous year. Questions relating to parental satisfaction with their offspring, adolescents' amount of time spending with their mother and father, adolescents' concern about parental opinions about themselves were included to describe the parent-child relationship. Asking about the cohort members' use of spare time and their communication pattern with their parents about the spare time use were included to measure the communication pattern between parents and adolescents. A mean sum of sporting activity, extracurricular activities, artistic and book reading activities was used to measure adolescent spare time activities outside of school.

Pearson correlation was used to describe relationships between adolescent alcohol consumption and other variables.

ANOVA was used to examine significant differences in alcohol consumption and attitudes toward drinking according to whether they received alcohol education or not. Males and females were analysed separately to examine presence of gender differences.

### Findings

Descriptive information on the variables are presented in Table 1. Correlations between the alcohol related variables and selected socio-demographic factors are presented in Table 2. Most factors are related to consumption of alcohol and attitudes toward drinking. As expected, high alcohol consumption was most strongly related to frequency of best friend's drinking, favourable attitudes toward drinking, starting to drink with friends at early age, tasting alcohol at early age, and frequency of mother's and father's drinking. Attitudes toward drinking were also related to the same factors.

Adolescents tended to consume fewer units of alcohol and formed less favourable attitudes toward drinking if their parents were satisfied with them, adolescents cared about their parents' perspective of themselves, and open communication existed between adolescents and parents on adolescents' spare time use. Nevertheless, these associations were weaker than factors enhancing consumption of alcohol and attitudes toward drinking. Spare time activities appeared to shape less favourable attitudes toward drinking.

For females, amount of time spent with their mother was more strongly correlated with their consumption of alcohol than time spent with their

father. Time spent with their mother, but not with their father, also appeared to shape females' attitudes toward drinking. Time spent with either parent was weakly correlated with son's attitudes toward drinking.

The effect of alcohol education was found to be different between males and females. Mean alcohol consumption was significantly lower in the group of males who received alcohol education in the previous year ( $F=4.48$ ,  $df=1,1849$   $p=0.034$ ), but there were no significant difference in attitudes toward drinking.

By contrast for females, mean attitudes toward drinking were significantly lower in the group that received alcoholic education ( $F=11.69$ ,  $df=1, 2776$ ,  $p=0.001$ ), but the mean number of units consumed was not reduced by education. Key findings are as follows.

1. The best friend's and parental drinking, early history of drinking and quality of parent-child relationships and communication shaped drinking behaviour and attitudes toward drinking.
2. Social class, family risk and material disadvantages were not significantly related to teenagers' drinking or attitudes toward drinking.
3. Greater participation in other spare time activities was associated with forming more negative attitudes toward drinking.
4. Spending time with their mother reduced daughters' alcohol consumption and was linked with less favourable attitudes toward drinking.
5. The effect of alcohol education was found to be different between males and females.

### Discussion

The importance of one's best friend's drinking habits in this study is

consistent with the alcohol survey of English school children<sup>1</sup>. Although socio-economic status has been suggested as an indicator for adolescent heavy drinking,<sup>2</sup> no effects were found in this study for either gender. Our findings indicate the significance of peer and parental drinking and the quality of parent-child relationships and communication on quantity of adolescent drinking and attitudes that relate to adolescent drinking. A mother's role in influencing their adolescent daughter's drinking and attitudes was also noted. Based on the findings, we suggest the following are considered when implementing future alcohol education programmes.

- Ensure interventions and outcome measures are gender sensitive
- Target interventions at all young people, not just those from deprived areas
- Promote spare time activities that foster healthy peer relationships which do not involve the use of alcohol
- Encourage and educate families in how to establish an open style of communication
- Involve mothers in programmes aimed at adolescent girls
- Target outcomes for alcohol education by gender; reducing units consumed for males and improving attitudes for females.

**Acknowledgement:** This work was funded by the UK Economic and Social Research Council grant no. L326253061. Data from the 1970 British cohort study were supplied by the ESRC Data Archive. Those who carried out the original collection and analysis of the data bear no responsibility for its further analysis and interpretation.

**For correspondence:** Noriko Cable (e-mail: n.cable@ucl.ac.uk), Amanda Sacker (e-mail: a.sacker@ucl.ac.uk), Department of Epidemiology and Public Health, University College London, 1-19 Torrington Place, London WC1E 6BT. Tel: 020 7679 1709. Fax: 020 7813 0280.

### References

1. Balding, J. *Young people and alcohol: Its use and abuse*, Exeter, Schools Health Education Unit, 1997.
2. Droomers, M., Schrijvers, C.T.M., Casswell, S. & Mackenbach, J. P. Occupational level of the father and alcohol consumption during adolescence; patterns and predictors, *J Epidemiol Community Health*. 2003;57:704-710.

Table 1. Descriptive statistics for variables used to predict alcohol use

	Males		Females	
	Freq	%	Freq	%
Alcohol education				
Yes	1073	46.0	1580	48.7
No	1261	54.0	1663	51.3
<b>Demographic factors</b>				
Social class				
I	278	8.7	256	7.2
II	1118	34.9	1241	34.8
III non-manual	742	23.1	795	22.3
III manual	782	24.4	947	26.5
IV	233	7.3	274	7.7
V	55	1.7	57	1.6
	M (SD)	Range	M (SD)	Range
Family risk	0.55(0.71)	0-5	0.58(0.72)	0-4
Material disadvantages	0.57(0.91)	0-5	0.60(0.93)	0-6
<b>Drinking related factors</b>				
Alcohol consumption by unit	6.41(8.59)	0-83	3.79(5.70)	0-90
Attitudes toward drinking	1.72(0.28)	1-3	1.60(0.25)	1-3
Frequency of best friend's drinking	2.53(0.78)	1-4	2.41(0.74)	1-4
Frequency of mother's drinking	2.30(0.78)	1-4	2.29(0.78)	1-4
Frequency of father's drinking	2.71(0.86)	1-4	2.66 (0.84)	1-4
Age first tasted alcohol	11.16(3.09)	6-16	11.83(2.98)	6-16
Age started drinking with friends	14.32(1.34)	6-16	14.57(1.20)	6-16
<b>Parent-child relationship</b>				
Time spent with mother	3.50(1.31)	1-5	3.75(1.25)	1-5
Time spent with father	3.25(1.27)	1-5	3.08(1.34)	1-5
Parents satisfied with child	2.63(0.54)	1-3	2.69(0.52)	1-3
Child cares what mother thinks	2.59(0.61)	1-3	2.76(0.50)	1-3
Child cares what father thinks	2.52(0.67)	1-3	2.62(0.64)	1-3
<b>Parent-child communication</b>				
Parents ask whom child goes out with	2.82(1.08)	1-4	3.27(0.97)	1-4
Parents ask where child goes	3.12(0.95)	1-4	3.47(0.83)	1-4
Parents ask what child will do	2.41(1.12)	1-4	2.71(1.15)	1-4
Child tells parent whom they go with	3.10(1.02)	1-4	3.43(0.88)	1-4
Child tells where he/she goes	3.07(0.99)	1-4	3.32(0.91)	1-4
Child tells what he/she will do	2.73(1.08)	1-4	3.00 (1.06)	1-4
<b>Adolescent spare time activities</b>	1.96(0.56)	1-4	1.80(0.56)	1-4

Table 2. Pearson correlations by gender

Variables	Males		Females	
	Units	Attitudes	Units	Attitudes
<b>Demographic factors</b>				
Social class	-0.017	-0.021	0.030	0.019
Family risk	0.011	-0.026	-0.014	-0.009
Material disadvantages	-0.009	-0.006	0.006	0.006
<b>Drinking related factors</b>				
Attitudes toward drinking	0.321***	—	0.324***	—
Frequency of best friend's drinking	0.369***	0.257***	0.297***	0.283***
Frequency of mother's drinking	0.177***	0.182***	0.181***	0.183***
Frequency of father's drinking	0.131**	0.181***	0.124***	0.166***
Age first tasted alcohol	-0.237***	-0.188***	-0.202***	-0.171***
Age started drinking with friends	-0.239**	-0.249***	-0.256***	-0.260***
<b>Parent-child relationship</b>				
Time spent with mother	-0.014	-0.052*	-0.097***	-0.075***
Time spent with father	-0.039	-0.066*	-0.048*	-0.042
Parents satisfied with child	-0.094***	-0.065**	-0.131***	-0.117***
Child cares what mother thinks	-0.066**	-0.148***	-0.098***	-0.138***
Child cares what father thinks	-0.051*	-0.126***	-0.118***	-0.122***
<b>Parent-child communication</b>				
Parents ask whom child goes out with	-0.080***	-0.116***	-0.097***	-0.132***
Parents ask where child goes	-0.085***	-0.101***	-0.115***	-0.139***
Parents ask what child will do	-0.067**	-0.083***	-0.100***	-0.139***
Child tells parent whom they go with	-0.082***	-0.128***	-0.123***	-0.159***
Child tells where he/she goes	-0.087**	-0.162***	-0.135***	-0.203***
Child tells what he/she will do	-0.116***	-0.186***	-0.119***	-0.182***
<b>Adolescent spare time activities</b>	-0.013	-0.081***	-0.029	-0.131***

Note: \* $p<0.05$ , \*\* $p<0.01$ , \*\*\* $p<0.001$