

**Survey of Smoking, Drinking and
Drug Use (SDD) among young
people in England, 2010**

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Background

Background

- Young people's drinking behaviour is a matter of increasing public concern in England
- Previous reports suggest the proportion of young people who have drunk alcohol has decreased in recent years
 - **BUT** many 11 to 15 year olds still drink large amounts, and appear to deliberately set out to get drunk.
- Alcohol related problems have taken an increasingly heavy toll on health globally

Background (cont)

- As well as established health related problems, there are also potential problems in the community, due to behaviours associated with underage drinking.
- Consumption before the age of 16 years, especially binge drinking, significantly increases the risk of excessive drinking in adulthood.
- Evidence also shows that a variety of individual or social risk factors (family, school, peers, and the wider community) can influence adolescent drinking behaviours.

Smoking, drinking and drug use series

- SDD is a series of annual cross-sectional surveys
- Monitors behaviours in pupils (aged 11-15 years) in England
- Explores pupils' experience, attitudes and knowledge as well as other factors
- Schools sampled from across England
- 7296 pupils participated in survey
- Database readily accessible and free to download (<https://www.esds.ac.uk/findingData/snDescription.asp?sn=6883>)

SDD 2010 survey

- Variables
 - demographics
 - social background
 - drinking
 - attitudes
 - derived variables
- Outcomes
 - Binary
 - Ordinal
 - partial proportional odds models

Objectives

- To explore the relationship between variables describing drinking habits and a set of explanatory variables, including pupils' perceptions of peer drinking, perceived family attitudes to pupil drinking and personal attitudes towards getting drunk.

Statistical analyses

Statistical analyses

- Basic statistics
 - Percentages, Chi squared tests
- Logistic regression
 - Ever had an alcoholic drink outcome
- Partial proportional odds model (Generalised ordinal regression)
 - Usual drinking frequency of drinkers (4 categories)
 - Proportional odds assumption
- Univariate and multivariate models
- All statistical tests carried out in Stata 12

Generalised ordinal regression

- Parallel-lines constraint is relaxed only for those variables where it is not justified
- For an explanatory variable that does not violate the parallel-lines assumption, multivariate ordinal regression using a four category outcome (categories 1-4) might be thought of as three binary logistic regressions which share a common OR
- Namely, ...

Using 4 categories

- The odds of category 1 vs. the odds of categories 2, 3 and 4 combined; categories 1 and 2 combined vs. categories 3 and 4 combined; and categories 1, 2 and 3 combined vs. category 4
- If the parallel-lines assumptions were violated then the regression coefficients would differ, so three ORs would be needed rather than a common one

Basic statistics

Exploratory analyses

- 45% of pupils had ever tried an alcoholic drink
- Of these, a third drank >once a week and about half drank <monthly
- Similar proportion of boys and girls had ever had alcohol or had similar drinking frequency
- Frequency of ever having alcohol increased with age (range: 11% to 78%)
- On average, boys began drinking earlier than girls
- All adjustment variables in MA were significant

Variables and covariates used in the analyses

| Variable name | Description |
|--|---|
| Variables on demographic (covariates used in multivariate models) | |
| Sex | Male or female |
| Age | 11, 12, 13, 14 or 15 years old |
| Variables on social background (covariates used in multivariate models) | |
| Free school meal | Received a free school meal (yes or no) |
| Truant | Ever played truant in last year (yes or no) |
| Excluded ^a | Ever been excluded in last year (yes or no) |
| Books at home | <50, 50-100, >100 books |
| Cigarette status | Non-smoker, past, occasional, weekly |
| Drinking variables | |
| Alcoholic drink | Ever tried an alcoholic drink (yes or no) |
| Age first drank alcohol | Age of first alcoholic drink, of pupils who had consumed alcohol |
| Usual drinking frequency | 'At least once a week', 'about once a fortnight', 'about once a month' or 'a few times a year'. |

Explanatory variables on attitudes to drinking alcohol

| Variable name | Description |
|--|---|
| Parents/guardians attitude | Liberal attitude ('don't/wouldn't mind pupil drinking' or 'do/would let pupil drink as much as they like') or less tolerant/disapproving attitude ('don't/wouldn't like pupil drinking'). |
| Pupils view of alcohol use | |
| 'People of their own age drink alcohol ...' | |
| to look cool | Agree or disagree |
| to be sociable | Agree or disagree |
| because of peer pressure | Agree or disagree |
| for a rush/buzz | Agree or disagree |
| to feel more confident | Agree or disagree |
| to forget problems | Agree or disagree |
| because of boredom | Agree or disagree |
| to relax | Agree or disagree |
| OK to get drunk | 'OK to see what it is like' or 'It is not OK' |

Main findings

Relationship between attitudes about alcohol and alcoholic use

| Explanatory variable | % of pupils who have explanatory variable in those who do and do not drink alcohol | | Logistic regression for outcome 'Ever had alcoholic drink' | Generalised ordinal regression for outcome 'usual drinking frequency' |
|---|--|---------------------|--|---|
| Factor | ever tried alcohol | never tried alcohol | Multivariate OR (95% CI) | Multivariate OR (95% CI) |
| Family with a more liberal attitude to pupil drinking | 82 | 24 | 13.4 (11.5 to 15.8) | 1.4 (1.1 to 1.8) |
| OK to try getting drunk to see what it's like | 48 | 5 | | 3.0 (2.5 to 3.7) 2.7 (2.2 to 3.4) 1.9 (1.5 to 2.5) |

Relationship between attitudes about alcohol and alcoholic use

| Explanatory variable | % of pupils with views why they think their peers drink alcohol: | | Logistic regression (reg) for 'Ever had alcoholic drink' | Generalised ordinal reg for 'Usual drinking frequency' |
|---|--|---------------------|--|--|
| Factor | ever tried alcohol | never tried alcohol | Multivariate OR (95% CI) | Multivariate OR (95% CI) |
| Pupil thinks people their age drink: | | | | |
| to look cool | 68 | 83 | 0.5 (0.4 to 0.6) | 0.6 (0.5 to 0.7) |
| to be sociable | 78 | 53 | 1.5 (1.3 to 1.7) | 1.3 (1.1 to 1.7) |
| because of peer pressure | 52 | 70 | 0.6 (0.5 to 0.7) | 0.6 (0.5 to 0.7) |
| for a rush/buzz | 73 | 50 | 1.4 (1.2 to 1.6) | 1.0 (0.8 to 1.2) |
| to feel more confident | 61 | 38 | 1.5 (1.3 to 1.7) | 1.6 (1.4 to 1.9) |
| to forget problems | 48 | 36 | 1.0 (0.9 to 1.2) | 1.1 (0.95 to 1.3) |
| because of boredom | 50 | 36 | 1.1 (1.0 to 1.3) | 1.2 (1.0 to 1.4) |
| to relax | 37 | 21 | 1.9 (1.2 to 1.6) | 1.2 (1.0 to 1.5) 1.5 (1.3 to 1.9) 1.7 (1.4 to 2.2) |

Discussion

- Findings generalisable to pupils in secondary schools in England
- Pupils' drinking behaviour is influenced by attitudes and behaviour of their family
- The reasons why children think their peers drink may or may not be based on their own experiences with alcohol
- Some of the issues studied have been investigated in previous work

Discussion (cont)

- Questions such as whether pupil thought it was OK to get drunk to see what it is like, as well as impact of family and peers' attitudes on consumption based on a pupils' perception is new
- Indirect supporting evidence that peer pressure was associated with decreased drinking frequency
- Similarly, boredom was associated with both frequent and heavy drinking in other studies

Conclusions

- These analyses offer a perspective into reasons why pupils might choose to drink alcohol, and the impact of family and peers' attitudes on alcohol consumption
- Further exploration of the influences on and motives for drinking alcohol could contribute to future prevention programmes

Questions??