



SCOTTISH EXECUTIVE

Underage Drinking and the Illegal Purchase of Alcohol

Crime and Criminal Justice



**UNDERAGE DRINKING AND THE ILLEGAL
PURCHASE OF ALCOHOL**

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**Scottish Executive Social Research
2003**

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CONTENTS

1.	INTRODUCTION	1
2.	KEY FINDINGS	1
3.	BACKGROUND AND METHODS	2
4.	FINDINGS	2
	Alcohol Consumption Among Young People	2
	Gender Differences in Alcohol Consumption	3
	Illegal Purchase of Alcohol	3
	Gender Differences in Purchase of Alcohol	6
	Adverse Effects of Drinking Alcohol	7
5.	ALCOHOL AND DELINQUENCY	9
6.	CONCLUSION	9

1. INTRODUCTION

1.1 The Scottish Executive Central Research Unit (now SE Social Research), on behalf of the Nicholson Committee, commissioned research on the under-age drinking behaviour of young people, and the extent to which alcohol is purchased illegally in pubs and clubs, supermarkets and shops, off-licenses and other, illegal, sources. The research was undertaken within the context of The Edinburgh Study of Youth Transitions and Crime, a large-scale, longitudinal study of approximately 4,300 young people currently aged around 15, and attending schools within the City of Edinburgh. The Edinburgh Study already collects substantial information on alcohol consumption among the cohort using annual Sweeps (since the age of 12), and to facilitate the research included a specific question on the purchase of alcohol in the most recent questionnaire.

2. KEY FINDINGS

2.1 Key findings from the study were as follows:

- Drinking alcohol was found to be a commonplace activity for the majority of the sample. Just over 51% of young people admitted to drinking alcohol when they were around 13 years old, and this figure rose to almost 84% by the time they were aged 15.
- Drinking alcohol was also found to be a *regular* activity among young people. Almost half (49%) drank at least monthly or more often, with half of these (a quarter of the whole cohort) drinking on a weekly basis.
- Just under half (49%) of the respondents had purchased alcohol illegally from at least one source in the previous year.
- The most common source of alcohol for these respondents was a small, licensed grocer or corner shop with 33% having purchased alcohol from one of these outlets.
- 35% of respondents had purchased alcohol from more than one source, and 15% had bought it from 4 or more sources.
- Those who had purchased alcohol were more likely to drink more frequently. 42% of alcohol *buyers* drank on a weekly basis compared to 8% of *non-buyers*. Furthermore, a higher number of sources where alcohol had been purchased correlated with a higher frequency of drinking in the sample.
- Many respondents had also experienced the adverse effects of drinking alcohol. 49% could not remember some of things they had done on at least one occasion, and 46% reported being drunk at least once in the last year.
- Purchasing alcohol was also found to be strongly related to involvement in delinquent behaviour and, further, was a better predictor of delinquent behaviour than *frequency* of drinking.

3. BACKGROUND AND METHODS

3.1 The Edinburgh Study of Youth Transitions and Crime is an Economic and Social Research Council funded prospective, longitudinal study of offending and anti-social behaviour among young people. The main aim of the study is to further understanding of criminal offending in young people, and find out why some young people become serious or persistent offenders as they get older while many others either desist from offending or do not offend at all.

3.2 The study covers a cohort of some 4,300 young people who started attending secondary schools within the City of Edinburgh in the autumn of 1998 (at approximately age 12), or joined that year group up to the third year and are now around age 15. Utilising this large population of subjects has the twin advantages of securing sufficient observations of adverse outcomes in low- risk subgroups (e.g. middle class females) and also minimises sampling error.

3.3 The central source of data collection is a self-completion questionnaire, administered to cohort members by means of annual Sweeps. Four annual Sweeps have been carried out to date with the fourth Sweep of data collection, from which the results included in this report have been taken, having been carried out between August 2001 and February 2002. The response rate for Sweep 4 was over 92%, constituting a total number of 4,143 completed questionnaires.

3.4 The vast majority of questionnaires (98%) were completed in a naturalistic classroom setting supervised by a researcher from the Study team. The remaining questionnaires were completed at either the young person's home, via a telephone interview or at some other location (e.g. a young persons' unit). Questionnaires are not sent via post and a researcher supervises the completion of each one. Researchers also provide assistance to any respondent who requires help with the questionnaire

3.5 It is crucial to the study that young people give honest answers, especially about the types and amount of offending they have been involved in. For this reason, a complete guarantee of confidentiality is given to every person who takes part in the Edinburgh Study, and at each Sweep the young people involved have accepted this guarantee with confidence and trust.

3.6 The questionnaire covers a wide range of topics and, within the study as a whole, information is also collected from a range of other sources. This report considers the results from the self-completion questionnaires relevant to consumption and purchase of alcohol.

4. FINDINGS

ALCOHOL CONSUMPTION AMONG YOUNG PEOPLE

4.1 At each Sweep of the Edinburgh Study respondents have been asked whether they drank an alcoholic drink in the past year. The most recent results show that in the year between August 2000 to August 2001, 84% of the cohort consumed an alcoholic drink. As shown in Table 1, one-quarter of the cohort (25%) admitted to drinking at least once a week, and 24% at least once a month. A further 26% drank 'hardly ever', and 9% drank only on special occasions.

4.2 At the first Sweep, respondents were asked whether they had *ever* tried an alcoholic drink. At subsequent Sweeps, by contrast, they were asked whether they had drunk a whole alcoholic drink within the past 12 months and, if so, how frequently they drank during that time. Due to the change in timescale and question structure, Sweep 1 figures are not comparable with results from later Sweeps and have not been included in the analysis.

4.3 The overall proportion of young people consuming alcohol was found to have risen consistently over the three comparable Sweeps. Figures from Sweep 2 show that 52% of the cohort had drunk an alcoholic drink in the previous year. At Sweep 3, when cohort members were around 14 years old, this figure had risen sharply to 80% with the rise continuing, although less dramatically, to 84% at Sweep 4.

4.4 The change in frequency of alcohol consumption has also been measured, again allowing comparison over Sweeps 2 to 4. In each questionnaire, those who admitted drinking alcohol were then asked “How often do you drink alcohol now?” and Table 1 below illustrates the change over time in each of the frequency categories.

Table 1: Frequency of drinking alcohol reported in Sweeps 2 – 4

	<i>Row percentages</i>				
	At least once a week	At least once a month	Hardly ever, or never	Only on special occasions	Not drunk alcohol in past year
Sweep 2	7	9	13	22	49
Sweep 3	18	28	14	20	21
Sweep 4	25	24	26	9	16

4.5 As can be seen from Table 1, the frequency at which alcohol is drunk clearly increases with age. At Sweep 4, almost half of all respondents (49%) drank at least once a month or more often. The proportion of respondents drinking as often as once a week increased almost fourfold between Sweeps 2 and 4, whereas the proportion drinking only on special occasions over the same period.

Gender differences

4.6 Some small differences are evident when comparing the drinking habits of males and females. Results from Sweep 4 data show that a slightly higher proportion of females (87%) admit to having drunk an alcoholic drink in the past year than males (81%). Indeed, further analysis found that females were more regular drinkers than males, with 53% drinking monthly or more often compared to only 45% of males in the same category.

ILLEGAL PURCHASE OF ALCOHOL

4.7 Earlier Sweeps of the questionnaire did not ask about buying alcohol. This question was first included at Sweep 4, when respondents were aged around 15. The questions were as follows:

During the last year, did you buy alcohol yourself from any of these places?

- In a pub or bar
- At a disco or nightclub
- From a supermarket (e.g. Aldi, Asda, Co-op, Iceland, Kwiksave, Lidl, Safeway, Scotmid, Somerfield or Tesco)
- From an off-licence (e.g. Bottoms Up, Haddows, Oddbins, Threshers, Victoria Wine or other specialist alcohol shop)
- From another shop (e.g. a small grocers like Alldays, Costcutter or Spar, a petrol station or a corner shop)
- From someone selling alcohol from their home, a vehicle, a shed/garage or on the street

4.8 In each case the response was limited to yes or no. The underlined section of the question is reproduced exactly as it appeared in the questionnaire. This was to clearly stress the distinction between the respondents purchasing the alcohol themselves and having it purchased for them by someone else, but for their own consumption. The results are listed in Table 2. It should be noted that the question does not specify that the alcohol purchased was necessarily for the respondent's own consumption, although this would seem likely in most cases.

4.9 Because the fieldwork for Sweep 4 had already started when the additional question was added to the questionnaire, responses were not obtained from around 180 members of the cohort. However, over 3950 responses were received, representing a well-balanced sample of the cohort in every respect.

Table 2: During the last year did you buy alcohol yourself from any of these places?

	% Yes
Purchased alcohol from any source listed	49
A pub or bar	24
A disco or nightclub	21
A supermarket	22
An off-licence	24
Another shop	33
Someone selling alcohol from his or her home	8

4.10 As illustrated in the above Table, almost half of respondents had purchased alcohol illegally in the previous 12 months. The 'other shop' entry was found to be the most common with a third (33%) of cohort members having bought alcohol from this source. This is substantially higher than the figures for the other retail outlets. Possible explanations for this may be that the obvious proliferation of smaller, licensed grocers makes them far more accessible to respondents than large supermarkets, which are fewer in number. A further explanation could be that the licensed grocer, being a shop selling a wide range of different types of goods, may not be as intimidating to the underage seeker of alcohol than off-licences, whose primary purpose is the sale of alcoholic beverages.

4.11 The results from the leisure-based sources (e.g., pubs) are perhaps more surprising than the retail figures. A substantial minority of almost one quarter (24%)

of respondents had purchased alcohol from a pub or bar, and slightly more than a fifth (21%) had purchased alcohol from a disco or nightclub. Given that each of these two venues are largely exclusive to those over the age of 18, and that the cohort being questioned were only 14 or 15 years of age during the time period in question, these figures seem worryingly high. Indeed, according to these results, a public house or bar constitutes the second most popular source of alcohol for underage drinkers when purchasing it themselves.

4.12 The number of different sources from which a respondent had purchased alcohol was calculated to examine to what extent young people had purchased alcohol from more than one outlet. The results in Table 3 show that the majority of those who had purchased alcohol had done so from two or more sources (35%). Furthermore, 15% had purchased alcohol from four or more sources, suggesting the existence of a substantial minority of 15 year-olds who are confident enough to buy alcohol from a range of different outlets.

Table 3: Number of sources from which alcohol was purchased

Number of sources	% of respondents
0	51
1	14
2	11
3	10
4	7
5	6
6	1

4.13 A clearer picture of those members of the cohort who are actively purchasing alcohol can be achieved by examining the relationship between the purchase of alcohol and its frequency of consumption. As can be seen in Table 4, there is a clear, identifiable relationship between the purchase of alcohol and frequency of its consumption, with those who drink more often having been more likely to have purchased alcohol in the last year. Thus, almost three-quarters of those who purchased alcohol in the last year drink it at least monthly or more often.

Table 4: Drinking frequency by whether purchased alcohol in last year

Row percentages

Whether purchased alcohol	Drinking frequency				
	At least once a week	At least once a month	Hardly ever or never	Special occasions	Not in the past year
Yes	42%	32%	19%	5%	2%
No	8%	16%	13%	33%	30%

4.14 A more detailed demonstration of this relationship is revealed by comparing frequency of drinking with the number of sources from which alcohol has been purchased. As can be seen from Table 5, 90% of those who had purchased alcohol from 4 or more sources reported drinking on a monthly or more regular basis.

4.15 Treating the frequency of drinking as a scale¹, the correlation found between the number of sources from which alcohol has been purchased, and frequency of

¹ For the frequency of drinking scale the ordering of the frequency items makes a difference. To obtain the closest correlation, 'special occasions' is treated as the least frequent item below 'hardly ever'.

drinking, indicated a very strong relationship between the two variables². This finding suggests that purchasing alcohol is a strong predictor of heavy-end drinking.

Table 5: Drinking frequency by number of sources where alcohol purchased

Column percentages

	Number of sources at which alcohol purchased			
	Not purchased alcohol	1 source	2 or 3 sources	4 or more sources
Not drank alcohol in past year	30%	3%	2%	*
Special occasions	13%	10%	5%	2%
Hardly ever or never	33%	28%	20%	8%
At least once a month	16%	33%	36%	26%
At least once a week	8%	25%	37%	64%

* Less than 1%

Gender differences

4.16 Gender was found to have only a limited effect in the purchase of alcohol. As can be seen in Table 6 below, in most cases the differences in proportions having bought alcohol from each source are minor.

Table 6: Proportion of respondents who purchased alcohol from each source by gender

	% of males	% of females
Purchased alcohol from any source	48	50
Pub or bar	22	26
Disco or nightclub	19	24
Supermarket	24	2
Off-licence	25	23
Another shop	33	33
Someone selling alcohol from his/her home etc.	11	6

4.17 Two figures that are noticeably different, however, are those for the leisure venues. In each case, a statistically significantly³ higher proportion of girls had succeeded in purchasing alcohol at such establishments. One explanation for this is that girls enter the stage of rapid adolescent development earlier than boys. This explanation has also been offered to explain a significant narrowing in the ratio of male to female delinquency in the Edinburgh Study results over the first three Sweeps. Although at each Sweep male delinquency has been higher than that of females, the difference between the two has reduced both between Sweeps 1 and 2, and between Sweeps 2 and 3.

4.18 Teenage girls' ability to look and act several years older than their actual age may also enhance their ability to deceive bar staff and nightclub door stewards, whose responsibility it is to monitor and control the age of clientele within their establishments. Therefore, this may make such venues an easier option to source alcohol for underage females than their male peers.

² Correlation coefficient of 0.567

³ Significant to $p = 0.001$

ADVERSE EFFECTS OF DRINKING ALCOHOL

4.19 The findings outlined so far have shown that drinking alcohol is a common behaviour for many of the respondents, that a substantial proportion of them have purchased alcohol illegally and that there is already, at 15 years of age, a small group of seasoned drinkers who are confident enough to buy their own alcohol from a variety of sources. What is not clear from the above data is whether drinking alcohol has any adverse effects on the respondents' lives, or indeed how much alcohol they consume.

4.20 In order to measure this effect, a scaled down and slightly altered version of the Rutgers Alcohol Problem Index (RAPI) was included in the questionnaire⁴. In full, the 23-item RAPI is used as a screening tool for assessing adolescent problem drinking. Space restrictions did not allow for the inclusion of the full instrument; instead, the following seven-item question was constructed for the purposes of the research:

In the last year, how many times have these things happened to you while you were drinking alcohol or because you had been drinking alcohol?

- I got into fights or caused trouble
- I spent too much money on alcohol
- I missed a day (or part of a day) of school
- I tried to cut down or stop drinking
- I can't remember some of the things I did
- A friend or family member told me to stop or cut down on my drinking
- I was so drunk I felt sick or dizzy or fell over

4.21 There was a four-item response for each item in the question (never, once or twice, three or four times, and five times or more), and the question was only answered by those who had drunk an alcoholic drink in the past year.

4.22 Drinking alcohol affects different individuals in different ways. In particular, some people may be relatively unaffected by the same amount of alcohol that renders others drunk. For this reason, specific questions on the amount of alcohol consumed were not asked; rather, the question measures how alcohol impacts on the individual.

Table 7: Adverse effects of drinking

	<i>Row percentages</i>			
	Percentage of those who drank alcohol in the last year			
	Never	Once or twice	3 or 4 times	5 times or more
I got into fights or caused trouble	73	20	4	3
I spent too much money on alcohol	67	23	6	5
I missed a day or part of a day at school	88	7	2	3
I tried to cut down or stop drinking	80	14	3	3
I couldn't remember some of the things I had done	51	30	10	9
A friend or family member told me to stop or cut down on my drinking	86	9	3	3
I was so drunk I felt sick or dizzy or fell over	54	26	10	10

⁴ White, H.R., and Labouvie, E.W. (1989) "Towards the assessment of adolescent problem drinking" in *Journal of Studies in Alcohol* vol.50 pp30-37

4.23 As Table 7 demonstrates, in most cases a substantial minority appear to have seen the consumption of alcohol have some adverse effect on their behaviour or lives, and it is clear that for some respondents this effect is extreme. Over one quarter (27%) of alcohol drinkers had been involved in fights or troublemaking at least once because they had been drinking, and 34% admitted to spending too much money on alcohol on more than one occasion. A worrying 12% had missed school at least once, with half of these missing school on several occasions.

4.24 Much larger proportions of the respondents reported having experienced the more immediate adverse and physiological effects of drinking. Just under half (49%) could not remember some of things they had done on at least one occasion, and a similar proportion (46%) admitted to being drunk in the last year. This figure represents a significant increase from Sweep 2, when 41% admitted to having been drunk at least once. This increase is more dramatic amongst those who answered five times or more, where the Sweep 2 figure of 5% had almost doubled to just below 10% in Sweep 4.

4.25 In many cases, these adverse effects appear to have been acknowledged by both the respondents themselves, and their friends and family. One in five (20%) of the alcohol drinkers in the sample had tried to cut down or stop drinking in the past year, and 14% had been advised to do so either by a family member or one of their peers.

4.26 Constructing an ‘adverse effects’ score for each respondent by assigning a value to each item in the response set⁵ allows a further examination of those affected by drinking alcohol. The score ranges from 0 to 21, where 0 means the respondent has experienced no adverse effects at all, and 21 means they have experienced all the effects several times. Table 8 illustrates the summary frequencies for the full range of the score.

Table 8: Summary of adverse effects of drinking alcohol score

Score	% of cohort
0	44
1 – 5	39
6 – 11	14
12 – 16	3
17 – 21	*

* Less than 1%

4.27 The figures in Table 8 show that, for the most part, drinking alcohol has minimal adverse effects on the majority of the cohort. Almost half (44%) reported experiencing none of the effects in the past year, and a further 39% had a score of between 1 and 5. Only just over 3% scored more than 11 on the scale.

4.28 Using the adverse effects of drinking alcohol score allows exploration of its relationship with related variables. Strong correlations were found between frequency of drinking and adverse effects (coefficient of 0.676) and also between variety of sources and adverse effects (0.629).

⁵ Never: 0; Once or twice: 1; 3 or 4 times: 2; 5 times or more: 3)

5. ALCOHOL AND DELINQUENCY

5.1 As stated at the beginning of this report, the main aim of the Edinburgh study is to further understanding of criminal offending in young people and find out why some young people become serious or persistent offenders as they get older, while many others either desist from offending or do not offend at all. One key predictor of delinquent behaviour that has been well documented and has been identified in the analysis for this study is the consumption of alcohol.

5.2 In order to summarise the respondent's involvement in various kinds of delinquency a *variety of delinquency* score was calculated, which is simply a count of the number of forms of delinquency that the respondent said he or she had been involved in⁶. In the first three Sweeps, the relationship between variety of delinquency and frequency of drinking was significantly strong (with the correlation coefficients at 0.356, 0.492 and 0.406 respectively). A corresponding coefficient of 0.482 at Sweep 4 shows that this relationship has continued.

5.3 The relationship between variety of delinquency and variety of sources from which alcohol has been purchased, however, with a significantly higher correlation of 0.514, goes beyond previous findings from the cohort study and illustrates that purchasing alcohol appears to be a better predictor of delinquency than drinking it. This may be an expectedly closer relationship given that the purchase of alcohol when underage is itself an illegal transaction. A link is thus becoming clearer between purchasing alcohol, heavy-end drinking and involvement in delinquent behaviour. This is somewhat reinforced by the demonstrable relationship between problem drinking, as measured by the adverse effects scale, and variety of delinquency. The correlation coefficient between these two measures (at 0.579) is significantly higher than that between frequency of drinking and variety of delinquency.

6. CONCLUSION

6.1 Evidence from the Edinburgh Study of Youth Transitions and Crime clearly illustrates that drinking alcohol is a common occurrence for the majority of young people between the ages of 12 and 15. Indeed, at the age of 15, almost 50% appear to be drinking on at least a monthly basis, with half of these drinking every week. Additionally, many of these young people are no strangers to illegally purchasing alcohol from a range of retail, leisure and other, illegal, sources. Of particular concern are the substantial proportions of underage young people successfully purchasing alcohol from pubs and nightclubs.

⁶ 'Ever' at Sweep 1, and 'In the past 12 months' for Sweeps 2 – 4.

Table 9: Correlation between variety of delinquency, adverse effects of drinking, frequency of drinking and number of sources where alcohol purchased

	Variety of delinquency	Adverse effects of drinking	Frequency of drinking	Number of sources where purchased
Variety of delinquency	1.000			
Adverse effects of drinking	0.579**	1.000		
Frequency of drinking	0.482**	0.676**	1.000	
Number of sources where purchased	0.514**	0.629**	0.567**	1.000

**Correlation coefficient significant at better than the 99% level of confidence

6.2 Consumption of alcohol is also impacting on respondents' lives. Many respondents admit to spending a lot of money on alcoholic drinks and seemingly drinking so much that not only do they get drunk, but their level of drinking is affecting their schooling and being noticed by their family and peers. There is also a clear relationship between alcohol and delinquency in terms of both frequency of drinking and purchasing. In particular, purchasing alcohol has been shown to be a stronger predictor of involvement in delinquent behaviour than drinking alcohol.

6.3 The most significant conclusion presented by these findings, however, is that those who are able to purchase alcohol, and do so with confidence and from a variety of sources, are those who are more likely to drink more, more likely to suffer from the adverse effects of alcohol consumption and more likely to be heavily involved in delinquent behaviour. Although further analysis is required to explore this relationship in greater depth, there is a suggestion at this stage that if an effective method of preventing or reducing the illegal sale of alcohol to minors could be found, (thus resulting in less young people being able to purchase alcohol), this could have a marked impact on their frequency of drinking, the detrimental effects that drinking alcohol has on their lives, and their involvement in delinquent behaviour.

ISSN 0950 2254
ISBN 0 7559 3512 8
Price £2.00

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