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Abstract

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Keywords

impact, cumulative, assessing, findings, alcohol, data, sectional, cross, drinking, people, young, marketing

Disciplines

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ASSESSING THE CUMULATIVE IMPACT OF ALCOHOL MARKETING ON YOUNG PEOPLE'S DRINKING: CROSS SECTIONAL DATA FINDINGS

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ABSTRACT

This article provides first wave data from a study designed to examine the impact of the full range of marketing communication techniques used by the UK alcohol industry, and their cumulative effect on alcohol initiation and youth drinking patterns. The study is of a longitudinal cohort design and was conducted amongst secondary school pupils in Scotland. A cohort of 920 2nd year school pupils participated and cross sectional data was collected and analysed. Regression models with multiple control variables examined the relationship between awareness of and involvement with a range of alcohol marketing activities, and drinking and associated risky behaviours. Marketing variables were constructed for 13 different types of alcohol marketing – television, billboards/posters, newspapers & magazines, sponsorship, in store displays, merchandising, special price offers, promotional/viral emails, product placement, package/product design, web sites, SMS/mobile and free samples. Drinking behaviour measures were collected including drinking status, what and amount consumed when last had a drink and frequency of drinking. Confounding variables tested included media exposure, demographics and parental and peer influence. Bivariate analyses found significant association between awareness of, exposure to, and involvement in, alcohol marketing, and drinking behaviours and attitudes towards alcohol. The initial findings reinforce the view that alcohol is marketed using several channels of communication, and that young people demonstrate a high level of awareness of and involvement with alcohol marketing. Alcohol interventions and alcohol control policies should aim to help children counter alcohol marketing from multiple sources and limit exposure to these sources.

KEY WORDS

Alcohol marketing, adolescents, drinking behaviour

1. INTRODUCTION

The last decade has seen a 20% increase in alcohol consumption in the UK (Prime Minister's Strategy Unit 2004). Furthermore the UK now has one of the highest recorded rates of binge drinking and associated harm in the whole of Europe (Hibell et al 2004, WARC 2004). These trends have been particularly prevalent amongst young people. The level of youth drinking in the UK between 2000 and 2006 has risen considerably – by 43.4% for 11-13 year olds males and more markedly by 82.6% for 11-13 year old females. Concurrent with this increase in alcohol consumption there has been a 20% increase in hospital admissions among youth, the equivalent of 20 per day, due to alcohol use (Diment et al 2007).

Furthermore binge drinking amongst young people is a strong predictor of alcohol dependency in later life (Jefferis et al 2005) and is associated with coronary heart disease, liver cirrhosis and stroke (Gutjahr et al 2001, Leon & McCambridge 2006, Britton and McPherson 2001). Research also indicates that excessive binge drinking amongst teens can have an adverse neurodevelopmental effect.

The social problems associated with youth drinking elicit high levels of public concern (HM Government 2007). Nearly half of all 10-17 year olds who drink regularly have admitted to some sort of criminal activity or disorderly behaviour, and it is estimated that alcohol is present in half of all crime (Crime & Society Foundation 2004).

The deleterious effects associated with problem drinking, and the extent and nature of alcohol problems and alcohol related harm in the UK has generated a focus on evidence based policy and a proliferation of research on factors which may potentially causally influence drinking behaviours and associated behaviours. One factor which has been identified is the influence of alcohol marketing.

The alcohol market in the UK is big business, estimated to be worth in excess of £41.6bn million in 2007 (Keynote 2008). Recent trend towards marketplace consolidation has led to the emergence of global brands with huge marketing budgets. Currently it is estimated that in the UK in around £300 million is spent on alcohol advertising (WARC 2006), and in excess of £800 million per annum is spent on all forms of alcohol marketing (Prime Minister's Strategy Unit 2003). These figures are mirrored around the world with a growing trend for marketing spend to move away from traditional channels such as TV, print and outdoor advertising, to below the line channels such as sponsorship, new media and viral marketing (Jernigan et al 2001).

Therefore unsurprisingly attention has begun to focus on the potential impact of alcohol marketing in the UK on drinking behaviour. Research on the effect of alcohol marketing on drinking behaviour and in particular youth drinking has taken two principal forms. Econometric studies involve statistical analysis of the relationship between overall levels of alcohol consumption, typically using sales data, and overall levels of advertising or marketing expenditure. Consumer studies examine how individual people's knowledge, attitudes and behaviour are influenced by their exposure to alcohol marketing.

The majority of econometric studies in this area suggest that alcohol marketing has little or no effect on overall alcohol consumption (Duffy 1991, Nelson 2003). However econometric studies suffer from a number of methodological weaknesses (Hastings et al 2005) and importantly do not tell us anything about specific sub-sections of the alcohol market such as young people.

Consumer studies use individuals as the unit of analysis and attempt to explore and predict the responses of young people to alcohol marketing. Findings from consumer studies have been gradually emerging to form a convincing evidence base that alcohol marketing does have an effect on drinking behaviour. Recent systematic reviews of the evidence base (Smith and Foxcroft 2007, Anderson et al 2009, Booth et al 2008) seem to have moved the debate on from one of plausibility to veracity. Research carried out in the US has also suggested that

youth are over exposed to alcohol marketing suggesting that the volume of exposure, as well as the nature and content requires attention (Jernigan et al 2007, CAMY 2008).

However despite the emergence of an evidence base linking alcohol marketing to an effect upon drinking behaviour the UK government asserted in the 2004 National Harm Reduction Strategy that there was a lack of evidence of a causal effect and that further research was required:

“There is no clear case on the effect of advertising on behaviour. One recent study suggests that such an effect may exist, but is contradicted by others which find no such case. So the evidence is not sufficiently strong to suggest that measures such as a ban on advertising or tightening existing restrictions about scheduling should be imposed by regulation.” (Prime Minister’s Strategy Unit, 2004, p32)

Given that the majority of consumer studies have been carried out in the US, and there are currently no consumer studies that have been carried out in the UK there does appear to be gaps in the evidence base. Few studies have looked at the impact of new media and viral marketing, or have attempted to examine the cumulative impact of marketing communications and branding, and no one has checked for any differential effect in terms of gender and inequality.

The study described here is designed to address some of these gaps in the evidence base using a longitudinal research design adapted from the field of tobacco control research (McFadyen et al 2001). The study uses a cohort design to investigate the *whole* marketing communications mix used by the UK alcohol industry, including new media, and the *cumulative* impact that these communications have on youth drinking and high-risk drinking patterns during the period when most young people start experimenting with alcohol, from ages 13-15. This involves a longitudinal survey of a cohort of young people with baseline sample collected amongst 2nd year secondary school pupils, with follow up at 4th year.

The study will address the gaps in the evidence base as longitudinal research on the topic has not been carried out previously in the UK and previous studies have not assessed the cumulative impact of the whole marketing mix on youth drinking. This article presents cross sectional data from first wave data from the study on the influence of awareness of, exposure to and involvement with alcohol marketing on drinking behaviour and associated behaviours. This is the first UK data set of its kind on the topic to be made available.

2. METHOD

The questionnaire survey was informed by previous stages of research including an audit of alcohol marketing communications, in-depth interviews with stakeholders and qualitative focus groups with young people aged 13-15 years old. Questionnaire design and development reflected findings from the earlier research and included an extensive, iterative piloting process to ensure the acceptability, appropriateness and comprehension of the questionnaire content, and to ensure respondents can accurately reflect their views and experiences without constraining responses (Kinnear and Taylor 1991, Fink & Kosecoff 1998). Two piloting procedures were used, mini-focus groups of 4-5 respondents per group ($n \leq 20$) and observed interviews ($n=12$). These were conducted in two stages to guide questionnaire content and comprehension.

The final questionnaire survey was split into two parts, and interview administered questionnaire measuring awareness, appreciation and involvement with alcohol marketing and a self completion questionnaire measuring drinking and associated behaviours and confounding variables.

The questionnaire was divided into five main sections as follows:

1. Marketing in general: concerning awareness, appreciation and involvement with marketing in general. This was used as an introduction, and provided important background information on the accessibility of various forms of marketing to young people.

2. Alcohol marketing: This section collected data concerning awareness, appreciation and involvement with alcohol marketing.
3. Branding: Concerned responses to five key alcohol brands and collected data on brand imagery, perceptions of packaging, and awareness and appreciation of marketing for these five key brands. The brands included a premium vodka, a well known lager brand, a notorious tonic wine drink, a cheap white cider and a well known alcopop brand.
4. Demographics: This involved measures for demographic characteristics and was used in the analysis to help interpret results and meet the research aims and objectives.
5. Self-completion: This was used to collect data on young people's drinking behaviour and intentions. This included measures of drinking prevalence, consumption, future drinking intentions, and the drinking behaviour of significant others. Data on confounding variables such as parental and peer influence was also collected.

3. SAMPLE

A stratified random sampling approach (Sapsford and Jupp 1996) was used to generate the sample frame for the study. The final analysis sample included 920 2nd students attending schools in the West of Scotland. The sample gender split was 52.9% female (n=487) and 47.1% male (n=433). In terms of ethnicity the sample characteristics were 93.3% (n=858) white, 1.3% (n=12) mixed race, 3.3% Asian (n=30), 1.2% black (n=11), 0.1% Chinese (n=1) and 0.4% other (n=4). The social class demographics for the sample were 46.3% ABC1 (n=426) and 53.3% C2DE (n=491). The sample breakdown in relation to religious identification was 62.4% Christian (n=574), 32% none (n=294), 3.7% Muslim (n=34), 0.5% Sikh (n=5), 0.2% Hindu (n=2), 0.1% Buddhist (n=1) and 0.4 other (n=4).

An information pack was sent out to the homes of all S2 pupils attending local authority schools in the three areas, containing an information sheet and parental and respondent consent forms, with an incentive of a gift token offered for participation. This generated a potential sample frame size of approximately 9500 respondents. From this a sample of 920 was achieved following screening for required sample characteristics and attrition during fieldwork.

4. DATA COLLECTION

A fully briefed team of professional market researchers administered the questionnaire in the home of respondents with parental or guardian consent, and presence pre-requisite. All researchers adhered to the Data Protection Act 1998 to ensure anonymity of respondents with a guaranteed that all information gathered would remain confidential and any data used in reports would remain anonymous.

To limit the potential for bias in answering the questionnaire due to parental or guardian presence, especially given the sensitive nature of the research topic, numbered show-cards were used for much of the interviewer administered questionnaire with alcohol consumption being measured through a self completion questionnaire which was then placed in a sealed envelope. The research design was given ethical approval by the relevant authorities and interviews were conducted in keeping with the Market Research Society code of conduct.

5. MEASURES

5.1 Drinking Behaviour

Drinking behaviour measures were collected including drinking status, what and amount consumed when last had a drink and frequency of drinking. Baseline drinking status was measured after students started in 2nd year at secondary school (Academic Year 2006-2007). Adolescents who indicated that had tried a whole alcohol drink and not just a few sips were classified as drinkers with the remainder classed as non-drinkers. Respondents were asked what age they were when they first had an alcoholic drink, how often they usually had an alcoholic drink (every day or almost every day, about twice a week, about once a week, about

once a fortnight, about once a month, only a few times a year, or I never drink alcohol now). Respondents were then invited to complete a question measuring what they had to drink in units the last time they had a drink. The question included a visual showing various drinking vessels and asked respondents to detail each drink they had if they consumed more than one type of drink including name or brand of drink, type of drink, drinking vessels they drank it from, how much of the drink they consumed (one full bottle/can/glass, $\frac{3}{4}$ of the bottle/can/glass, $\frac{1}{2}$ of the bottle/can/glass, $\frac{1}{4}$ of the bottle/can/glass or less than $\frac{1}{4}$ of the bottle/can/glass). From this the number of units of alcohol consumed by each respondent the last time they had an alcoholic drink was calculated. Questions on source of alcohol consumed, drinking location and who respondents were with were also asked of respondents.

5.2 Associated Behaviours

Associated risky behaviours were measured using a question adapted from national school surveys asking whether any of the following happened to the respondent the last time they had a drink: I was sick, I got into a fight, I got into an argument, I smashed things, I had difficulty walking, I got really drunk, I forgot what I had done, I missed school or work the next day, I did something I later regretted, I felt ill the next morning, I had to be taken to hospital, I lost money or some other items, my clothes or other items got damaged, I got into trouble with the police and I got injured or hurt myself.

5.3 Awareness of Alcohol Marketing Communications

Dichotomous questions were used when asking young people about their contact with alcohol marketing. Measures for awareness of alcohol marketing were taken across 13 different types of alcohol marketing – television, billboards/posters, newspapers & magazines, sponsorship, in store displays, merchandising, special price offers, promotional/viral emails, product placement, package/product design, web sites, SMS/mobile and free samples. The measures were developed using information from the focus groups and the audit of marketing communications. An important consideration was the measurement of awareness of below the line channels such as sport and music sponsorship and new media including SMS messaging, web sites and social networking sites. Respondents were asked if they had seen any marketing in each of the channels listed and if so what brands they could recall seeing marketed in this way. Respondents were also given the opportunity to record any other ways in which alcohol products are marketed not covered in the list above.

5.4 Appreciation and Involvement in Alcohol Marketing Communications

Measures for young people's appreciation and involvement in alcohol marketing communications were developed with a question on whether respondents had: received free samples of alcohol products, received free gifts showing alcohol brand logos, received special price offers for alcohol, received promotional mail or emails mentioning alcohol brands, owned clothing or other alcohol branded items, looked at web sites for alcohol brands, downloaded mobile phone or computer screensavers featuring alcohol brands and used social networking sites containing alcohol brands or logos. Responses were categorised as yes, no or don't know.

5.5 Awareness, appreciation and perception of selected key alcohol brands

Likert scales and semantic differential scales were found to be the most appropriate methods for questions used to explore attitudes, beliefs and perceptions. Respondents were shown a series of visuals of masked alcohol brands to test their knowledge of the brands. The respondents were then shown the brands unmasked and asked to categorise each brand according to a series of statements designed to test brand awareness, appreciation and perception.

5.6 Control Variables

A range of control variables have been used in previous studies on the influence of alcohol marketing on drinking behaviour such as media exposure (Grube & Wallack 1994, Connolly

et al 1994, Robinson et al 1998), gender (Lex 1991), social context including parental, family member and peer influence (Petraitis et al 1995, Szalay et al 1996) religion (Engs et al 1990), level of deviance (Ellickson et al 2001), pro-drinking attitudes beliefs and behaviours (Ellickson et al 2005), socio-economic class (Jones-Webb et al 1995) and race and ethnicity.

For this study various measures for confounding variables were included. Respondents were asked about parental attitudes towards drinking and levels of drinking and the same was done for siblings. Measures on other variables regarding the social context were also devised. Peer influence was measured using questions asking who respondents who they normally socialised with, who they normally drank with, whether peers had supplied them with alcohol, whether if peers offered them alcohol would they drink it, whether peers would regard it as okay if they drank alcohol or got drunk, and a likert scale on perceived levels of drinking amongst young people in three age groups: 13, 14 and 15 years old. Bonds with school were explored by asking respondents how much they liked or disliked school, and how they regarded their own academic performance. Pro-drinking attitudes and behaviour, alcohol beliefs and deviance was also recorded using appropriate measures. Demographic data was recorded for age, gender, socio-economic class, race and religious classification.

6. ANALYSIS

The main research hypothesis was that all things being equal, young people who are more aware and appreciative of alcohol marketing are more likely to have bought and consumed alcohol and adopted high risk drinking behaviours. The hypothesis was first tested using logistic regression, with whether or not the participants have tried alcohol as the dependent variable and the measures of awareness of, and appreciation/involvement with alcohol marketing communications as independent variables. This hypothesis was then further tested using the measures of associated risky drinking behaviours as the dependent variable. In the above confounding variables (exposure to media, gender, socio-economic group, ethnicity and religion, parental, family and peer influence) were included as covariates in the analyses. Similar analyses was conducted to test whether 2nd year students who were more aware and appreciate of alcohol marketing communications are more likely to think they will probably be drinking and purchasing alcohol by age 16.

7. RESULTS

7.1 Demographics & Social Context

Out of the sample of 912 adolescents, just over a third (318) reported that they had had a proper alcoholic drink. Significantly more 14 year olds (50%) had had a proper alcoholic drink than those aged 12 (31%) and 13 (34%). There was no significant difference by gender between those who had and had not had a proper alcoholic drink. The sample was mostly white. Owing to the very low cell counts for the categories 'Chinese' and 'Other' these were excluded from the k-sample chi-square test (as were those who didn't know or whose ethnic origin was not stated). Significantly fewer young people who categorised themselves as 'Asian or Asian British' had had a proper alcoholic drink. Over half the sample was Christian, over a third had no religion and 4% was Muslim. Too few were Buddhist, Hindu, Sikh or other religion to analyse and none of the respondents was Jewish. In a comparison of the three largest groups (Christians, Muslims and those with no religious affiliation), significantly fewer Muslim respondents had had a proper alcoholic drink. Similar percentages of adolescents across most of the social class categories had had a proper drink, with the exception of category B, in which significantly fewer adolescents had had a proper alcoholic drink. There was no significant difference in parents' marital status between respondents who had had a proper alcoholic drink and those who had not.

Adolescents who had not had a proper alcoholic drink likely school significantly more and thought their school work compared better to other pupils than adolescents who had had a proper alcoholic drink. Respondents who had had a proper alcoholic drink were more likely to hang around with friends older than them and friends of all different ages, whereas

adolescents who not had a proper alcoholic drink were more likely to hang around with friends the same age as them.

7.2 Drinking Behaviour

The mean age at which young people reported having their first alcoholic drink was 11.11 years. Most adolescents who had had a proper alcoholic drink only drank a few times a year. However 70 adolescents reported drinking about once a month or more frequently. Most respondents who had had a proper alcoholic drink usually drank with other people, usually their parents or guardians. Most adolescents drank at home or at someone else's home. However, 65 adolescents reported drinking on the street, in a park or somewhere else outside. Of these 65 who reported drinking on the street, in a park or somewhere else outside all but one reported drinking with other people, mostly a group of friends of both sexes (none reported drinking with their parents/guardians). About a third of them drank only a few times a year, just under a quarter drank fortnightly and a fifth reported that they never drink alcohol now.

Of the 318 adolescents who reported that they had had a proper alcoholic drink, comparatively small numbers reported adverse effects. The most commonly reported effect was having had difficulty walking (58 of the 318). Having got into an argument was the only adverse effect that was significantly associated with adolescents' predictions about the likelihood of their drinking alcohol in the next year. Respondents who had got into an argument the last time they drank alcohol were more likely to think that they would drink alcohol in the next year than those who had not got into an argument (Mann-Whitney U = 2377, $p=0.002$). Experiencing adverse effects after drinking alcohol did not appear to put them off alcohol.

Of those adolescents who had had a proper alcoholic drink the mean number of alcoholic units consumed the last time they drank was 4.6. Eight adolescents reported drinking over 20 units the last time they drank alcohol.

7.3 Alcohol Purchasing Behaviour

Twenty-seven adolescents reported having bought or tried to buy alcohol in the preceding four weeks. Just over half of these succeeded in buying alcohol from a shop, supermarket or off-licence. Only one adolescent tried and succeeded in buying alcohol from a pub, bar or club. A larger number of adolescents got someone else to buy alcohol for them. Of those who had had a proper alcoholic drink 63 reported having been given alcohol by friends and 56 by their parents.

7.4 Appreciation of sponsorship by alcohol brands

The questionnaire included three measures of appreciation of sponsorship by alcohol brands. Three semantic scales were used to measure attitudes towards the acceptability of sports sponsorship and perceptions of the brands associated with alcohol sponsorship.

The scores on the three scales were not normally distributed, so non-parametric Mann Whitney U tests were conducted to examine whether respondents ratings varied by drinking status and gender. Adolescents who had not had a proper alcoholic drink were significantly more negative in their responses to whether sponsorship by alcohol and were more likely to rate it as bad for sport and should be discouraged.

		Had a proper drink?		
Scale 1 to 5		<u>No</u>	<u>Yes</u>	(Mann Whitney p value)
1	5	mean	mean	
Alcohol sponsorship is really	Alcohol sponsorship is really	4.00	3.75	0.004

good for sport	bad for sport			
It is the least popular brands which sponsor sport	It is the most popular brands which sponsor sport	3.69	3.82	0.168
Alcohol companies should be encouraged to sponsor sport	Alcohol companies should be discouraged from sponsoring sport	4.15	3.94	0.020

There was no significant difference by drinking status in respondents' opinions about the popularity of alcohol brands that sponsored sport. Girls were more negative than boys in their opinions about whether alcohol sponsorship, being more likely to believe it was bad for sport and should be discouraged. Boys were more inclined than girls to believe that it was the most popular brands that sponsor sport; clothing with alcohol brand logos or names on it.

		Gender		
Scale 1 to 5		<u>Male</u> mean	<u>Female</u> mean	(Mann Whitney value) p
1	5			
Alcohol sponsorship is really good for sport	Alcohol sponsorship is really bad for sport	3.76	4.05	0.000
It is the least popular brands which sponsor sport	It is the most popular brands which sponsor sport	3.87	3.62	0.001
Alcohol companies should be encouraged to sponsor sport	Alcohol companies should be discouraged from sponsoring sport	4.00	4.15	0.011

7.5 Awareness of alcohol marketing channels

Adolescents who had had a proper alcoholic drink were aware of significantly more alcohol marketing channels than adolescents who had not had a proper alcoholic drink. Analysis of individual channels revealed that adolescents who had had a proper alcoholic drink were significantly more aware of the following alcohol marketing channels: adverts on television or in the cinema; in newspapers or magazines (including inserts and flyers); sponsorship of sports or sport teams by alcohol brands; signs or posters about alcohol in shops or on shop fronts; special price offers for alcohol; unusual bottle/can designs for alcohol products; mobile phone or computer screensavers containing pictures of alcohol products or logos; and web home pages.

	Not had a proper drink	Had a proper drink	
	% (valid) (No.)	% (valid) (No.)	P value (X ² test for trend)
Adverts for alcohol on television or in the cinema	75 (439)	85 (262)	0.001
Adverts for alcohol on the street, large posters, billboards, bus shelters or sides of buses/taxis	54 (307)	59 (178)	0.175
Adverts for alcohol in newspapers or magazines (including inserts and flyers)	30 (173)	40 (123)	0.003

Sponsorship of sports or sport teams by alcohol brands	60	(343)	72	(217)	0.001
Sponsorship of music events, festivals, concerts or venues by alcohol brands	36	(205)	36	(107)	0.896
Sponsorship of programmes or films on TV and in the cinema by alcohol brands	30	(170)	35	(105)	0.201
Signs or posters about alcohol in shops or on shop fronts	54	(311)	64	(196)	0.004
Clothing with alcohol brand logos or names on it	66	(381)	72	(223)	0.045
Special price offers for alcohol	59	(336)	70	(214)	0.001
Promotional e-mails, chain e-mails or joke e-mails that mention alcohol brands	4	(26)	7	(21)	0.138
Famous people in films, on TV or in music videos that show a particular brand of alcohol	14	(82)	18	(54)	0.203
Unusual bottle/can designs for alcohol products	18	(103)	25	(76)	0.022
Web sites for alcohol brands or that have alcohol brand logos or names on them	6	(37)	7	(22)	0.676
Mobile phone or computer screensavers containing pictures of alcohol products or logos	21	(124)	32	(99)	0.001
Web home pages (myspace, msn, profile or bebo) containing alcohol brand logos	7	(43)	22	(70)	0.000
Total number of marketing channels aware of*	5.2		6.2		0.000

*One way analysis of variance, $F=27.511$, $df=1$, $p=0.000$

7.6 Awareness of alcohol brands

There was high awareness of four of the five alcohol brands presented on showcards across the whole sample, with the exception of a cider brand which was less well known. However, significantly more adolescents who had had a proper alcoholic drink were aware of all the brands presented to them.

	Not had a proper drink		Had a proper drink		Chi-squared
	% (valid)	(Number/ Total)	% (valid)	(Number/ Total)	P value
Buckfast	85	500/588	96	304/317	0.000
WKD	88	520/590	97	307/316	0.000
Carling	94	555/592	99	312/316	0.001

Smirnoff Vodka	92	541/591	97	307/317	0.002
Frosty Jack's cider	30	174/579	40	125/314	0.003

7.7 Perceptions of alcohol brands

Adolescents who had not had a proper alcoholic drink rated all but one of the brands shown to them as significantly more boring than adolescents who had had a proper alcoholic drink. Respondents who had had a proper alcoholic drink rated WKD and Carling as significantly weaker and Smirnoff Vodka as significantly stronger than adolescents who had not had a proper alcoholic drink. Adolescents who had had a proper alcoholic drink were significantly more likely to think that drinkers their age would probably like to be seen with Buckfast or Smirnoff Vodka. Young people who had had a proper alcoholic drink were significantly more likely to think that WKD looked like a drink for an inexperienced drinker. By contrast, those who had not had a proper alcoholic drink were significantly more likely to think that Carling looked like a drink for an experienced drinker. Respondents who had not had a proper alcoholic drink were significantly more likely to think that all five brands presented to them looked like drinks that they would not like the taste of. Adolescents who had had a proper alcoholic drink were significantly more likely to think Buckfast, WKD and Smirnoff Vodka were drinks “you always see around here”. By contrast, adolescents who had not had a proper alcoholic drink were significantly more likely to think Frosty Jack's Cider was a drink “you never see around here”. Respondents who had had a proper alcoholic drink were significantly more likely to think that Buckfast, WKD and Smirnoff Vodka were brands that are very popular with people their age. Respondents who had had a proper alcoholic drink were significantly more likely to consider Buckfast, WKD and Smirnoff Vodka as well known brands. By contrast, adolescents who had not had a proper alcoholic drink were significantly more likely to rate Carling as a well known brand than adolescents who had had a proper alcoholic drink. Adolescents who had had a proper alcoholic drink were significantly more likely to think that WKD, Carling and Smirnoff Vodka were brands “you often see marketed”. By contrast, young people who had not had a proper alcoholic drink were significantly more likely to think that Buckfast was a brand “you never see marketed”.

7.8 Participation in alcohol promotions

Significantly more adolescents who had had a proper alcoholic drink reported participating in all but one form of alcohol promotion, whereas significantly more adolescents who had not had a proper alcoholic drink had not participated in any form of alcohol promotion.

	Had a proper drink?				Chi-squared
	<u>No</u>		<u>Yes</u>		P value
	% (valid)	(Number/ Total)	% (valid)	(Number/ Total)	
Received free sample of alcohol products	2	(10/584)	6	(19/318)	0.000
Received free gifts showing alcohol brand logos, given out at events such as concerts, festivals or sports events	10	(56/538)	16	(45/273)	0.30
Received special price offers for alcohol	9	(47/547)	15	(42/276)	0.010
Received promotional mail, e-mails or joke, chain or wind up e-mails mentioning alcohol brands	8	(36/558)	12	(34/284)	0.012

Owned clothing or other personal items with an alcohol brand name or logo on it	43 (254/594)	51 (162/156)	0.018
Looked at a web site for alcohol brands or about drinking	3 (18/576)	8 (23/295)	0.004
Downloaded a mobile phone or computer screensaver containing an alcohol brand name or logo	6 (31/563)	12 (33/285)	0.004
Used a web home page such as myspace, msn, profile heaven or bebo containing an alcohol brand name or logo	5 (27/567)	16 (45/273)	0.000
None of these	44 (261/594)	31 (100/318)	0.000

7.9 Alcohol beliefs

Adolescents who had had a proper alcoholic drink thought significantly more 13 and 14 year olds (about half) drank alcohol at least once a week than adolescents who had not had a proper alcoholic drink did. However, adolescents who had not had a proper alcoholic drink thought that significantly more 15 year olds (most) drank at least once a week than adolescents who had had a proper alcoholic drink. Adolescents who had had a proper alcoholic drink thought that significantly more of their friends (between a few and half of them) drank alcohol at least once a week than did adolescents who had not had a proper alcohol drink, who thought that only a very few of their friends drank alcohol at least once a week. Significantly more respondents who had had a proper alcoholic drink had a mother, father or sibling who drank alcohol compared with adolescents who had not had a proper alcoholic drink. Adolescents who had had a proper alcoholic drink were significantly more likely to think that their brother(s) or sister(s) would consider it OK for them to try drinking alcohol to see what its like and to get drunk to see what it's like. Significantly more respondents who had had a proper alcoholic drink thought that their parents or whoever looked after them would consider it OK for them to try drinking alcohol to see what it was like. However, hardly any adolescents, regardless of whether they had had a proper alcoholic drink, thought that their parents or whoever looked after them would consider it OK to get drunk to see what it was like. Significantly more adolescents who had had a proper alcoholic drink thought that their closest friends would consider it OK for them to try drinking alcohol to see what it was like and to get drunk to see what it was like.

7.10 Future drinking intentions

Adolescents who had not had a proper alcoholic drink were more likely than those who had to think that they would not drink or buy alcohol at any time during the next year. Even those adolescents who had had a proper alcoholic drink thought they probably would not buy alcohol at any time during the next year, although they might drink alcohol in the next year.

8. DISCUSSION

There are some limitations to the study that must be considered. First off all the findings are cross sectional therefore cannot tell us about any effect from marketing on changes in drinking behaviour over time and initiation into drinking. Although the results here suggest an association between awareness of and exposure to marketing and drinking behaviour further multivariate analysis is required to properly assess the impact beyond association. Also the relatively small cohort size and locality of the study means generalizability could be questioned. However these findings do form a part of an ever increasing and compelling evidence base that suggests marketing does have an effect on drinking behaviour.

This study provides the first data on this issue available in the UK and builds upon existing cross-sectional data showing a link between alcohol marketing and youth drinking behaviour.

Furthermore longitudinal consumer research on the impact of various forms of alcohol marketing conducted in other countries have suggested that there is a causal link, and systematic reviews on the topic are drawn to this conclusion (Smith & Foxcroft 2007, Anderson et al 2009). The research findings here however offer valuable new data on the influence of a wide range of marketing activities including some channels on which there is little research such as social networking sites, and viral marketing through e-mails and SMS texting.

Importantly this study is also considering the cumulative impact of alcohol marketing communications on youth drinking behaviour, an approach not taken in many other studies. Currently there is a paucity of research on this cumulative impact with only a few published studies examining this (e.g. Collins et al 2007). The findings from the cross-sectional data show the cumulative effect of awareness and exposure to, and appreciation and involvement with alcohol marketing on drinking behaviour and associated risky behaviours.

Critical marketing studies such as this on the impact of commercial marketing can not only help inform upstream initiatives such as policy making and regulation (Hastings and Saren 2003) but can be used to help improve marketing principals and practice. Findings from studies such as this could, and should be used by those within the marketing discipline, be it academics or practitioners to reflect on marketing principles and practice and make changes towards more socially responsible marketing strategies especially in relation to areas such as alcohol or indeed food. This would necessitate a move away from a focus solely on encouraging consumption but putting social responsibility at the core of marketing strategy. Given our findings demonstrating the influence of alcohol sponsorship on young people, consideration could be given as to the suitability of such sponsorship agreements in certain environments. Also considering our findings on the level of ownership of alcohol branded clothing and other items, the industry and marketers could work together to try and limit this exposure for young people.

Furthermore findings from these studies can also inform and stimulate the use of marketing for pro-social goals, using marketing theory and practice in a positive way through social marketing initiatives that target youth drinking (Gordon et al 2007). Our findings demonstrate the important role new media communications play in young people's lives. Also brand perception and imagery are strong influences on today's youth. These learning points can and should be utilised in social marketing efforts tackling youth drinking.

The findings here strongly suggest that alcohol marketing does influence youth drinking in the UK and longitudinal data will help to establish a causal link. The public health community, stakeholders, the general public and now governments are increasingly clamouring for tighter controls on the way that alcohol is marketed. The marketing discipline must recognise these developments and explore ways in which commercial marketing principles, tools and processes can be made more socially responsible to meet these demands. Otherwise statutory regulation or indeed outright bans on alcohol marketing activity may well be necessary and indeed inevitable in the future. This is not a novel suggestion and would correspond with long established marketing tradition (Wilkie and Moore 2003).

However to date the alcohol industry and commercial marketing discipline does not appear to be heeding these warnings (Booth et al 2008). Given the findings from this research and from a range of other studies it appears that a crucial juncture has been reached at which decisions must be made on how to regulate alcohol marketing, whether this takes the form of statutory controls or outright bans on some forms of marketing.

REFERENCES

- Anderson P, De Bruijn A, Angus K, Gordon R, Hastings G. (2009) Impact of alcohol advertising & media exposure on adolescent alcohol use. *Alcohol & Alcoholism*: <http://alcalc.oxfordjournals.org/cgi/reprint/agn115v1>

- Booth A, Brennan A, Meier PS, O'Reilly DT, Purshouse R, Stockwell T, Sutton A, Taylor KB, Wilkinson A, Wong R. 2008. The Independent Review of the Effects of Alcohol Pricing and Promotion. Report prepared for the Department of Health. Stationery Office: London.
- Britton A, McPherson K (2001) Mortality in England & Wales attributable to current alcohol consumption. *J Epidemiol Community Health* **55**: 383–388
- Centre for Alcohol Marketing & Youth (2008) Youth Exposure to Alcohol Advertising on Television, 2001 to 2007. Washington D.C. <http://camy.org/research/tv0608/tv0608.pdf> [28 November 2008]
- Collins RC, Ellickson PL, McCaffrey D, Hambarsoomians K. 2007. Early adolescent exposure to alcohol advertising and its relationship to underage drinking. *Journal of Adolescent Health* **40**: 527–534
- Connolly GM, Casswell S, Jia-Zhang J, Silva PA. 1994. Alcohol in the mass media and drinking by adolescents: a longitudinal study. *Addiction* **89**: 1255–1263.
- The Crime and Society Foundation, (2004), [hosted by the Centre for Crime and Justice Studies] Alcohol and Crime.
- Diment E, Shenker D, Sen S. 2007. *A glass half empty? Alcohol concern's review of the impact of the alcohol harm reduction strategy*. Alcohol Concern: London
- Duffy M. 1991. Advertising & the consumption of tobacco & alcoholic drink: a system-wide analysis. *Scottish Journal of Political Economy* **38**: 369–85.
- Ellickson P, Collins RL, Hambarsoomians K, McCaffrey DF. 2005. Does alcohol advertising promote underage drinking? Results from a longitudinal assessment. *Addiction* **100**: 235–46.
- Engs, R.C., Hanson, D.J, Gliksman, L. & Smythe, C. Influence of religion & culture on drinking behaviors: A test of hypotheses between Canada and the U.S.A. *British Journal of Addictions*, 1990,85,1474-1482.
- Fink, A., & Kosecoff, J. (1998). *How to conduct surveys: A step-by-step guide* (4th ed.). Thousand Oaks, CA: SAGE Publications.
- Gordon R. 2007. Critical marketing from theory into practice: assessing the cumulative impact of alcohol marketing on youth drinking. European Academy of Marketing Conference, May 2007, Reykjavik.
- Grube JW, Wallack L. 1994. Television beer advertising & drinking knowledge, beliefs, & intentions among schoolchildren. *American Journal of Public Health* **84**: 254–259.
- Gutjahr, E., Gmel, G. & Rehm, J. (2001) Relation between average alcohol consumption & disease: An overview. *European Addiction Research* 7, pp. 117-127.
- Hastings G, Anderson S, Cooke E, Gordon R. 2005. Alcohol marketing & young people's drinking: a review of the research. *Journal of Public Health Policy*, **26**: 296–311.
- Hastings, G. and Saren, M. (2003), "The critical contribution of Social Marketing: Theory & application", *Marketing Theory*, Vol. **3**, pp. 305-322.
- Hibell, B., Andersson, B., Ahlström, S., Balakireva, O., Bjarnason, T., Kokkevi, A. and Morgan, M. (1999), *The 1999 European School Survey Project on Alcohol & Other Drugs (ESPAD) Report*, Stockholm: Swedish Council for Information on Alcohol & Other Drugs.
- HM Government 2007 Safe. Sensible. Social. The Next Steps in the National Alcohol Strategy. London: Stationery Office.

- Jefferis, B. J. M. H., Power, C. and Manor, O. (2005) Adolescent drinking level & adult binge drinking in a national birth cohort. *Addiction* 100, 543–549.
- Jernigan DH. 2001. *Global status report: alcohol & young people*. World Health Organization: Geneva.
- Jernigan DH, Ostroff J, Ross CS, Naimi TS, Brewer RD. 2007. Youth Exposure to Alcohol Advertising in Magazines -United States, 2001-2005. *Morbidity & Mortality Weekly Report* 56(30): 763-767.
- Jones-Webb R, Hsiao CY, Hannan P. Relationships between socioeconomic status & drinking problems among black and white men. *Alcoholism: Clinical and Experimental Research*, 19(3):623-7, 1995.
- Keynote (2008) Drinks Market (UK), Market Report. Keynote Ltd: Hampton.
- Kinnear, T.C., Taylor, J.R. (1991), *Marketing Research: An Applied Approach*, McGraw-Hill, New York, NY.
- DA Leon and J McCambridge, (2006) Liver cirrhosis mortality rates in Britain from 1950 to 2002: an analysis of routine data, *Lancet* 367, pp. 52–56.
- Lex, B.W. (1991). Some gender differences in alcohol & polysubstance users. ... *Journal of Substance Abuse*, 3, 133–157.
- MacFadyen L, Hastings GB and MacKintosh AM (2001). Cross sectional study of young people's awareness of & involvement with tobacco marketing. *British Medical Journal*, **322**(3rd March): 513-517.
- Nelson JP. 2003. Advertising bans, monopoly, & alcohol demand: testing for substitution effects using state panel data. *Review of Industrial Organization* **22**: 1–25.
- Petraitis, J., Flay, B. R., & Miller, T. Q. (1995). Reviewing theories of adolescent substance abuse: Organizing pieces of the puzzle. *Psychological Bulletin*, *117*(1), 67-86
- Prime Minister's Strategy Unit. 2003. *Interim Analytical Report*. Stationery Office: London.
- Prime Minister's Strategy Unit. 2004. *The Alcohol Harm Reduction Strategy for England*. The Stationery Office: London.
- Robinson TN, Chen HL, Killen JD. (1998) Television & music video exposure & risk of adolescent alcohol use. *Pediatrics* **102**:e54–9.
- Smith LA, Foxcroft DR. 2007. *The effect of alcohol advertising & marketing on drinking behaviour in young people: A systematic review*. Alcohol Education and Research Council: London.
- Szalay, L. B., Inn, A. & Doherty, K. T. (1996), 'Social influences: effects of the social environment on the use of alcohol & other drugs', *Substance use & misuse* 31, pp. 343–73.
- WARC (2004), *World Drink Trends 2004* [online], Oxford, UK: World Advertising Research Centre and Commission for Distilled Spirits. Available at: <http://store.warc.com/ProductInfo/843.asp>
- WARC (2006), *Drink Pocket Book UK* [online], Oxford, UK: World Advertising Research Centre & Commission for Distilled Spirits. Available at: <http://store.warc.com/DisplaySection.aspx?ProductID=538>
- Wilkie, W. L. and Moore, E. S. (2003), “Scholarly research in marketing: Exploring the ‘4 eras’ of thought development”, *Journal of Public Policy & Marketing*, Vol. **22**, pp. 116-146.

