

YOUNG PEOPLE'S EXPOSURE TO ALCOHOL: THE ROLE OF RADIO AND TELEVISION

Georgina Pitt*, Diana Forrest**, Karen Hughes* & Mark A. Bellis*



Key points from this survey

Television

- Verbal reference to, or the appearance of, alcohol on television was relatively common between the hours of 6pm and 9pm and between a quarter and a third of all five minute sections contained at least one appearance on screen of alcohol related products.
- Reference to, or the appearance of, drugs or tobacco products was far less common than the appearance of alcohol on television.
- Major soaps were the most likely category of programme to show alcohol products or utilise alcohol related settings with more than half of all five minute programme segments taken from major soaps containing at least one appearance of alcohol.
- Advertising breaks around major soaps and prize game shows were more likely to show alcohol related products than advertising breaks around other programme categories.

Radio

- As with television verbal reference to alcohol use or alcohol products was far more common than reference to tobacco or drug use.
- References to alcohol on radio were far more common on local radio stations appealing to young people than on national programmes during the times most commonly listened to by young people.
- Higher levels of references to alcohol on local radio stations were often related to advertisements for local bars and clubs and special cheap drink offers associated with their promotion.

Conclusions

- Programmers and health officials should consider the impact of the regular appearance of alcohol and alcohol related settings in the most popular programmes for young people between the ages of 10-15 and 16-19 years.
- Rules and regulations governing advertising in and around programmes with mixed aged audiences may wish to consider the impact on young people of allowing adverts showing alcohol in and around programmes that already contain considerable levels of alcohol use.
- More information is urgently needed on the impact of sustained exposure to alcohol settings and products on television on the drinking habits of young people.
- Young people often already associate strongly with specific radio channels by the age of 10. While references to alcohol use were relatively uncommon within radio programmes they are not within adverts. Advertising standards and health professionals should consider the effect of regular references on local radio stations to bars and alcoholic drinks offers.

Introduction

The consumption of alcohol, tobacco and illicit drugs places an enormous burden both on the National Health Service and the country's economy as a whole. Estimates for alcohol alone place costs to the NHS each year at around £3 billion with a further £3 billion in lost moneys resulting from the effects of alcohol on business productivity¹. As well as direct effects of alcohol on health, alcohol use is strongly related to violence², accidents³, and unsafe sex⁴. In the case of tobacco, around 90% of peripheral vascular disease⁵, 84% of all lung cancers⁶, and a large percentage of other cancers (e.g. bladder, kidney and stomach) are caused by smoking, resulting in an estimated 13 people dying each hour in the UK from tobacco use. Illegal drug use also incurs significant health and social costs. Injecting drug use is related to infections such as HIV⁷ and the annual economic and social costs of drug use (mainly problematic drug use) in the UK have been estimated at between £10.9 billion and £18.8 billion⁸.

In the UK, the first use of alcohol, cigarettes or illicit drugs can often be at an early age. In a recent survey for the Department of Health, 26% of 11-15 year olds drank alcohol in the week before survey (28% of boys and 25% of girls) and the average weekly consumption of alcohol among those who drink was 9.8 units (boys 10.6 and girls 8.9)⁹. In the North West, research in Manchester found that by the age of 14, 90.2% of young people had tried an alcoholic drink and 29.9% were drinking on a weekly basis. By the age of 18, 96.8% had tried a drink and 80.2% were drinking weekly¹⁰. Around 10% of 11-15 year olds smoke on a regular basis (8% of boys and 11% of girls). Prevalence of smoking rises steeply with age, from 1% of 11 year olds being regular smokers to 22% of 15 year olds (19% of boys and 25% of girls)⁹. By the age of 11, 7% of boys and 4% of girls report having taken illegal drugs in the last year, rising to 41% and 36% respectively by the age of 15. Of all 11 to 15 year olds, 12% report having taken illegal drugs in the last month. Amongst 11-12 year olds, solvents (including glue, gas and aerosols) are the most commonly used drugs, although by age 13 cannabis use has become more prevalent, having been used by 10% of 13 year olds, 19% of 14 year olds and 31% of 15 year olds in the last year.

A wide range of Public Health measures aim to reduce the consumption of alcohol, tobacco and illicit drugs by young people. Working in the opposite direction (for alcohol and tobacco at least) are a range of advertising measures across all forms of media that promote substance use and encourage new individuals to consume alcoholic drinks and tobacco products, in particular cigarettes. However, the power of some media formats to encourage individuals to alter their behaviour is not limited solely to advertisements. Product placement (whereby a particular item appears within a TV or radio programme) may also encourage viewers and listeners to purchase that item. In fact even the story line of programmes can alter individuals' behaviour. Thus when a major TV soap recently focused on cervical cancer, the number of women presenting for cervical screening doubled in some areas¹¹. The effects of regularly viewing or hearing reference to some items (such as alcoholic drinks) or types of behaviour (such as drinking, smoking or even drug taking) are more difficult to quantify. However, given the power that media content has over individuals' behaviour it is important to identify what groups of individuals are being exposed to images of or references to alcohol, drugs and tobacco through media such as TV and radio and how often. Consequently, the aim of this project was to identify young people's levels of exposure to alcohol, drugs and tobacco through either:

- watching television programmes popular with young people or
- listening to radio stations aimed at young audiences, during the most common listening hours for this target group.

Methods

Television

Television programmes were selected from national viewing figures (BARB - Broadcasters Audience Research Board Limited)¹² so that all programmes that appeared in the top fifteen programmes for either the 10-15 or 16-19 age group were included in the study. Programme selection was based on viewing figures for the weeks 1st to 14th October 2001. Within this time period the programmes selected are identified in Table 1 and the maximum viewing figures for each programme given (based on those weeks figures). For the purposes of analysis, each programme was categorised into one of nine categories according to the programme content (Table 1). Actual programmes analysed were broadcast between the dates of 30th October and 5th November 2001. Programmes that were repeated within the week (for example Eastenders) were included in the study on all occasions that they were shown. In total 42 hours and 10 minutes of television were included from Channels BBC1, BBC2, ITV and Channel 4.

Table 1 Television programmes selected for study with maximum viewing figures for period 1st October to 14th October 2001

Programme Name	10-15	16-19	Category
	Maximum 1000s	Maximum 1000s	
Eastenders	1074	467	Major soap
My Family	715	206	Comedy
Coronation Street	914	304	Major Soap
Holby City	575	211	Medical
Casualty	546	148	Medical
Simpsons	568	217	Comedy
Ground Force	488	180	Gardening
Neighbours	489	318	Younger Soap
Millionaire	367	173	Prize Game
National Lottery Winning Lines	431	Na	Prize Game
Pop Idol	426	186	Music
Childrens BBC	440	210	Childrens
Top of the Pops	427	154	Music
Emmerdale	418	240	Younger Soap
Match of the Day	345	183	Football
Big Match Championship	358	166	Football
Friends	Na	179	Comedy
Hollyoaks	Na	155	Younger Soap

* Maximums refer to the largest number of viewers any programme had in each age category during the period 1st October to 14th October 2001

Each programme was analysed in sections of five minutes and for each section the following was recorded.

Subjective Measures

- Separately, for alcohol, tobacco and drug use:
 - the number of positive references to each substance i.e. where each substance was portrayed in a positive manner or associated with positive experiences (e.g. contributing to fun or improving life)
 - the number of negative references to each substance i.e. where each substance was portrayed in a negative manner or associated with negative experiences (e.g. reducing enjoyment or adversely affecting life)
 - the number of neutral references to each substance i.e. where comments gave matter of fact statements without positive or negative connotations.

Objective Measures

- Separately, for alcohol, tobacco and drug use in each five minute section:
 - the number of scenes where each substance appeared on screen
 - the number of times a setting associated with the use of each substance (e.g. a pub for alcohol) appeared on screen

Advertising breaks before, during and after each programme were also included in the study and categorised according to the above criteria. For the purposes of analysis each advertising break was regarded as a separate section and analysed in the same fashion as a five minutes programme section (regardless of its length). For non-commercial channels gaps between programmes were treated as advertising breaks.

Radio

For radio, the most popular listening hours for young people were identified from RAJAR (Radio Joint Advertising Research Limited)¹³ and radio stations were selected based on their appeal to younger people. Two national and two local radio stations were chosen. For each of these radio stations key listening hours for younger people were included in the study (7am to 9am and 3.30pm to 9pm week days; 9am to 12pm and 3pm to 9pm weekends). For national stations the study period covered 29th October to 5th November 2001. For local radio stations periods covered were 31st October to 6th November for Station 1 and 29th to 30th October 2001 for Station 2. For the purposes of analysis, radio programmes were split into half hour segments and, as with television, the number of positive, negative and neutral references to each substance recorded in each segment. Generic references to substances (e.g. lager) were analysed in the same fashion as brand names. Advertisements were treated as part of each half hour segment. However, any reference to alcohol, tobacco or drugs within each segment was recorded as either having been made during an advert or during other broadcast material. Importantly, the content of song lyrics were not analysed as part of this study.

R e s u l t s

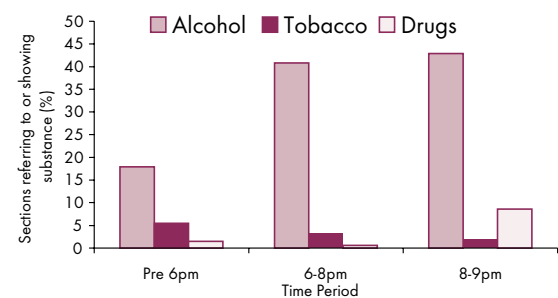


Figure 1: Time Trends in proportion of five minute sections referring to or showing alcohol, tobacco or drugs on Television. Analysis is based on 463 five minute sections of popular TV programmes and includes advertising breaks before during and after each programme. Time period analyses do not contain football programmes because of the length of the programmes.

Television

Figure 1 shows that across all types of reference to substances (including positive, negative or neutral references) and including settings or appearance on TV, alcohol is significantly more likely to be referred to or appear. Furthermore, its appearance or reference to it increases considerably after 6pm. These analyses do not distinguish between programme content and the content of advertising breaks. Reference to or appearance of tobacco or drugs was rare. Across most time periods they were neither present on screen nor mentioned in more than 95% of five minute segments (regardless of time of day). As a result the following more detailed analyses focus on the appearance of and reference to alcohol only.

Analysis of references to alcohol by time of day shows a steady increase in positive references to alcohol from one reference or more in 7.5% of five minute segments prior to 6pm, to at least one positive reference to alcohol in 20% of cases between 8pm and 9pm (Figure 2). This trend is significant (P<0.05). Equally, there is a significant rise in both how often alcohol is seen on television and the appearance of alcohol settings on television from before 6pm to between 6pm and 9pm (P<0.05; see Figure 3). Again in these analyses both the content of programmes and advertising breaks are included.

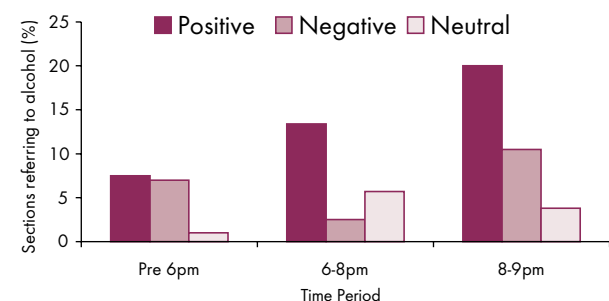


Figure 2: Time trends in type of references to alcohol on Television. Bars represent the proportion of five minute sections that contain references of each type (see text for definitions).

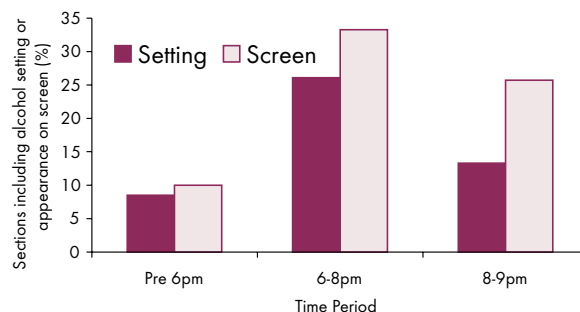


Figure 3: Time trends in appearance of alcohol settings and alcohol products on Television. Alcohol settings were typically bars and pubs.

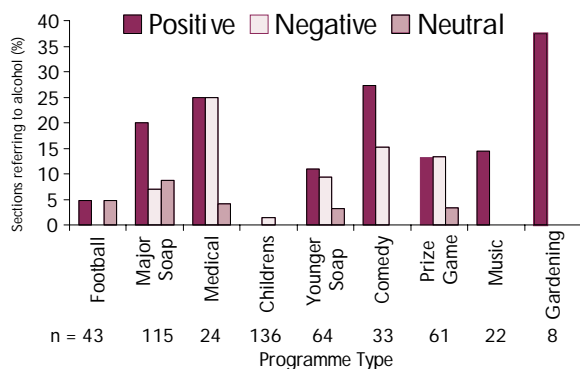


Figure 4: Differences in type of references made to alcohol on Television by Programme Type.
Graph shows the proportion of five minute sections in each programme category that contained references to alcohol by type of reference made. Here, analysis of each programme type includes advertising breaks before during and after each programme.

In order to understand what is contributing to this increase in both reference to and appearance of alcohol on screen, we analysed all five minute sections according to their type of programme and including associated advertising breaks (see Table 1; Methods). References made by individuals to alcohol (both positive and negative) were more common (see Figure 4) in medical, comedy and gardening shows ($P < 0.001$); although sample size was very small in the latter category). Most importantly however are the differences in the appearance of alcohol or alcohol settings (e.g. pubs) on television (Figure 5). Thus, for the prime time major soaps, more than half (52.3%) of all five minute segments (including associated advertising breaks) pictured alcohol on screen and nearly half (43.3%) included an alcohol related setting (usually bar or pub).

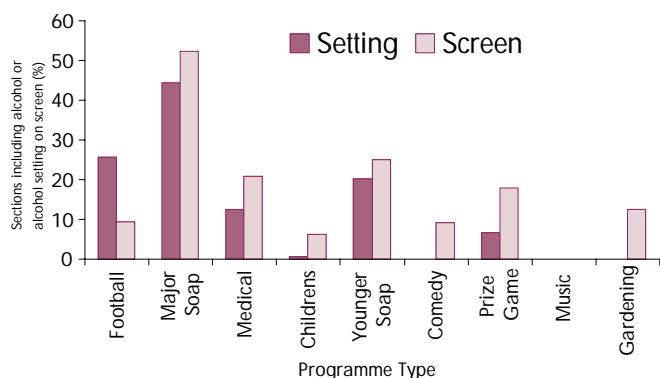


Figure 5: Differences between programme type in proportion of five minute sections showing alcohol or an alcohol related setting (Television).
Here, analysis of each programme type includes advertising breaks before during and after each programme. For the football category, appearance of billboards and banners advertising alcohol were included in the setting category.

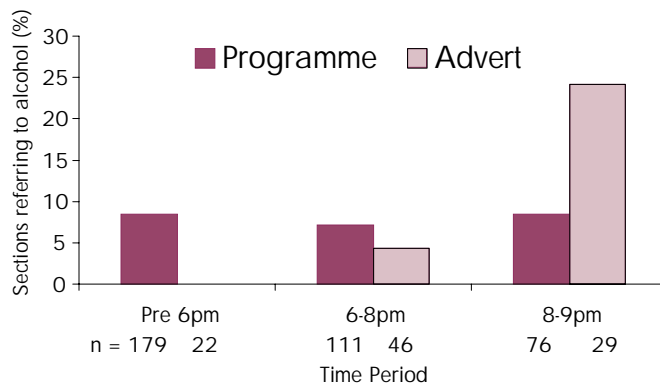


Figure 6: Time trends in positive references to alcohol on Television in programmes and adverts separately.
Proportion of five minute sections containing positive references to alcohol. Time period analyses do not contain football programmes because of the length of the programmes.

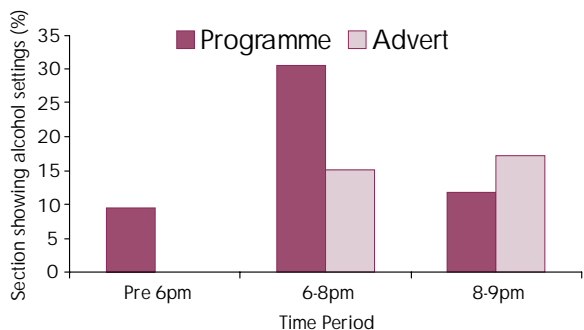


Figure 7: Time trends in appearance of alcohol related settings in selected television programmes and associated advertising breaks

For positive references to alcohol within programmes (excluding advertising breaks) there appears to be no peak time (Figure 6) and for the appearance of alcohol settings on screen the peak time is 6 - 8pm (Figure 7). When considering the appearance of alcohol itself, in advertising breaks it rises steadily from appearing in 9.1% of breaks before 6pm to 51.7% between 8 - 9pm. For programmes alone in this study alcohol appearance peaks at 32.4% in the 6 - 8pm time period (Figure 8).

When analysing the appearance of alcohol settings by programme category, for programmes (not including advertising breaks), a clear peak is seen in the major soap category ($P < 0.001$) where more than half of all five minute segments (54.5%) include an alcohol setting (Figure 9). Equally, analysing the appearance of alcohol itself on television (by programme type) identifies a peak in alcohol appearance associated with major soaps (52.3% of major soap five minute sections showed alcohol) and high levels of alcohol in advertising breaks associated with game shows, medical programmes and major soaps (Figure 10).

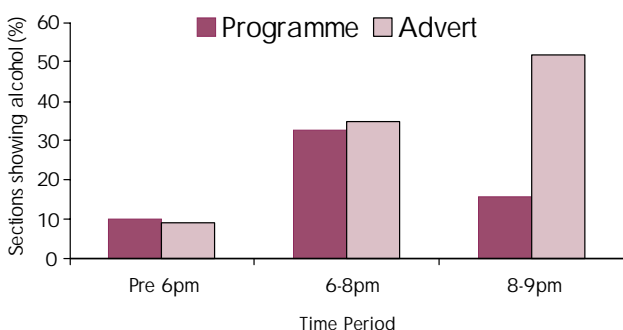


Figure 8: Time trends in the appearance of alcohol in Television programmes and in associated adverts

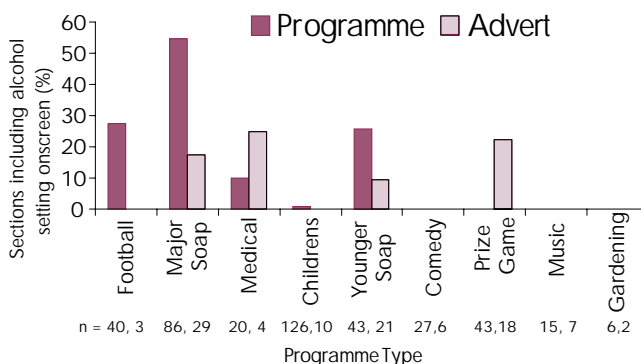


Figure 9: Differences in proportion of five minute sections showing alcohol settings on Television by programme type.
Here, programme content and advertising breaks before, during and after programmes are analysed separately. For the football category, appearance of billboards and banners advertising alcohol were included in the setting category.

Radio

As for television, the vast majority of references (of any kind) to substance use on radio were related to alcohol use. Figure 11 shows the distribution of references to each substance (including references during advertisements) by day of week. While on most days less than 10% of half hour periods contained reference to either tobacco or drugs, most days had references to alcohol in at least a quarter of all half hour segments. Again as a result, the following more detailed analyses concentrate on references to alcohol during radio programmes and adverts.

When analysed by time of day there is no clear pattern to positive, negative or neutral references to alcohol in programmes or in adverts. Importantly however, there is a significant difference in levels of alcohol references between local and national stations. When broken down into all advert-related alcohol references and positive, negative and neutral references throughout programmes, local radio stations have a significantly higher proportion of half hour segments containing adverts referring to alcohol ($P < 0.001$; Figure 12). Thus, while only 2.4% of half hour segments on national stations referred to alcoholic products or use, 43.4% of segments on local stations contained at least one advert referring to alcohol. When stations were analysed separately this pattern remained consistent with adverts on both local stations containing significantly higher levels of alcoholic references than either national station ($P < 0.001$).

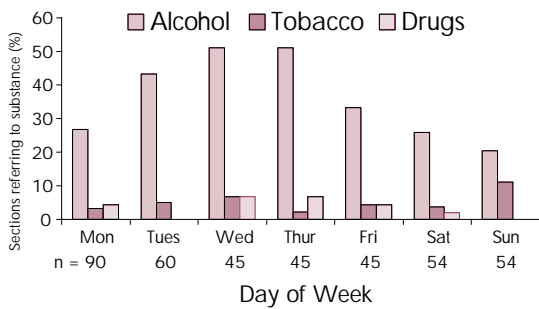


Figure 11: Daily trends in references to alcohol, tobacco & drugs on Radio by day of week. Analysis is based on 388 half hour segments of Radio programmes (including advertisements) around the most popular listening times for younger age groups.

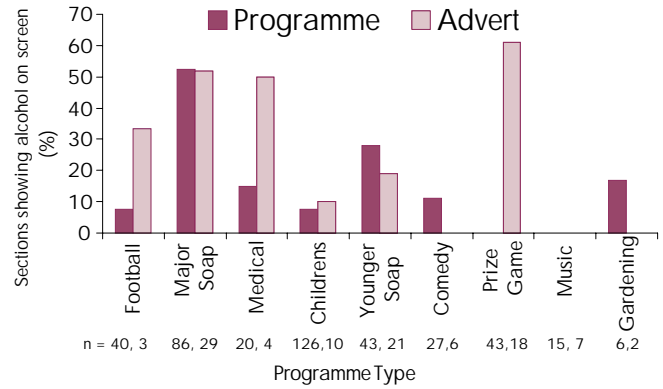


Figure 10: Differences in proportion of five minute sections showing alcohol on Television by programme type. Here, programme content and advertising breaks before, during and after programmes are analysed separately.

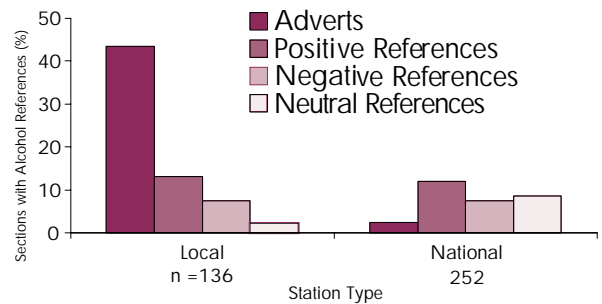


Figure 12: References to alcohol in radio adverts or in programmes by station's geographical coverage. References are split into positive negative and neutral with those occurring in adverts being dealt with separately.

Discussion

Research in parts of the North West (North Cheshire) among school pupils (age 14-19) found that 3% drink enough to feel drunk almost every day, 38% drink enough to feel drunk every week and around 30% drink enough to feel drunk every month. Those who were drunk more often were more likely to have missed school as a result of alcohol use or been stopped by the police¹⁴. Across the country as a whole arrests for drunkenness peak at 18 years of age¹⁵ and 10% of all 15-16 year olds have already been in trouble with the police as a result of alcohol consumption¹⁶. As well as criminal and educational problems, even at early ages alcohol can have significant health effects. In 1996, 200 children aged between 9 and 16 were admitted to one Liverpool hospital for alcohol-related problems, representing a ten-fold increase since 1985. Most had drunk strong cider or vodka and either needed resuscitation from overdose or treatment for injuries from accidents or assaults sustained when drunk¹⁷. Furthermore, alcohol can also have other indirect effects on health. Thus, nationally one in seven 16-24 year olds have had unprotected sex after drinking alcohol⁴ and about 40% of 13 and 14 year-olds were 'drunk or stoned' when they first had sexual intercourse¹⁸. At the least these figures and others clearly identify substantial levels of alcohol consumption by people under the age of 18. In fact, surveys identify that 28% of 11-year-olds, 30% of 12-year-olds, 44% of 13-year-olds, 56% of 14-year-olds and 72% of 15-year-olds have already bought alcohol¹⁹. Equally, other surveys identify that young people are keen consumers of television and radio²⁰.

Virtually all households in the UK have at least one radio and television²¹. This high ownership is reflected in the number of hours spent watching television or listening to the radio. Thus, on average 4-15 year old males spend 18.6 hours per week and females 17.9 hours per week watching television and 8.4 hours (males) and 9.2 hours (females) listening to the radio. For 16-24 year olds television watching hours are 17.7 (males) and 22.8 (females) with radio rising dramatically to 19.8 hours (males) and 18.4 hours (females)²¹. What is a matter of debate is how much influence the content and consumption of television and radio has on the substance use behaviour of young people. This survey did not aim to answer that question but to begin by quantifying the exposure of young people to alcohol, drug and tobacco references and appearances through both media. The survey identified that the levels of exposure to drug and tobacco images and references were substantially lower than exposure to alcohol images and references and therefore most analyses and the following discussion concentrate on that substance.

The World Health Organisation's European Charter on Alcohol states:

All children and adolescents have the right to grow up in an environment protected from the negative consequences of alcohol consumption and, to the extent possible, from the promotion of alcoholic beverages.

As part of a strategy for alcohol action, the charter suggests that each Member State: *Implement strict controls, recognising existing limitations or bans in some countries, on direct and indirect advertising of alcoholic beverages and ensure that no form of advertising is specifically addressed to young people, for instance, through the linking of alcohol to sports*²². However, in the UK, the television programmes that often attract the largest young audiences are not sports programmes but usually major soaps (Table 1) and, as shown in this study, they are also the programmes most likely to show alcohol and alcohol related settings (Figure 9). In fact, when analysed in five minute segments more than half of segments showed alcoholic products at least once on screen. Medical dramas and younger soaps also contain significant numbers of five minute segments showing alcohol although not at the same frequency. Importantly in this study the appearance of alcohol in adverts also peaked in and around the major soap programmes. Furthermore, across all programmes and advertising breaks (analysed for this study) verbal reference to, or the appearance of, alcohol on television was relatively common between the hours of 6pm and 9pm (Figure 1) and between a quarter and third of all five minute sections contained at least one appearance on screen of alcohol related products (Figure 3).

Alcohol Concern identify a range of key proposals for alcohol advertising in their publication *Proposals for a National Alcohol Strategy for England*²³. These proposals aim to protect young people from product promotion or media influences that may encourage them to drink alcohol prematurely or to excess in later life. One proposal is the introduction of measures to encourage a more balanced portrayal of alcohol and to reduce the volume of references to alcohol in broadcasting. In this context, health professionals and broadcasters may wish to consider the impact of the regular appearance of alcohol and alcohol related settings in the most popular programmes for young

people between the ages of 10-15 and 16-19 years. Equally, they may also wish to review the content of advertising breaks in and around programmes with mixed aged audiences where programmes already contain high frequencies of alcohol related scenes. In some cases the regular showing of alcohol within programmes and in breaks means that young some people can be exposed to frequent alcohol images through their favourite programmes almost every day of the week. Finally, for television it is worth considering the effect that the same images have on parents (who also favour for instance major soaps) and through them their children²⁴.

Amongst the resources available on the Radio Advertising Bureau website are guides to *Using the Radio to Reach Youth Markets*¹³ and *Harnessing the Power of Radio for Alcoholic drink Brands*²⁵. Across all age groups from 4 to 15 more than half of young people listen to commercial radio each week. Figures rise from around 60% of young people between the ages of 4 to 6 to over 70% of young people between the ages of 13-15¹³. Younger age groups (7 to 8 year olds) are most likely to be exposed in the car whilst by 11 the bedroom is the favoured location for listening. In *Harnessing the Power of Radio for Alcoholic Drink Brands* the document identifies that: *Commercial Radio is far stronger than the BBC amongst younger people, and 79% of 18-24 year olds listen every week.*

However, in some cases the same radio adverts will also be consumed by younger individuals. In fact, in this study it was primarily radio adverts that contained references to alcohol and many of these were local promotions of bars and clubs. As a result, local commercial stations had significantly higher levels of alcohol references than national stations during the hours analysed for this study. In fact, here local radio stations had references to alcohol in adverts in around 40% of half hour segments.

C o n c l u s i o n s

It is unlikely that any programmes (including major soaps) are intentionally aiming to promote alcohol consumption and are simply utilising bars and pubs as a convenient social setting for drama. However, the power of such programmes to alter individuals' behaviour has been identified in both cervical screening¹¹ and HIV testing trends²⁶. In some cases programmes have been praised for their actions in tackling important health and social issues²⁷. However, this study has highlighted the negative potential that programmes could have on behaviour when drama is regularly staged in settings where alcohol is consumed. In particular, although programmes like major soaps often deal with adult issues, they also attract hundreds of thousands of younger viewers. The effects of such exposure on their alcohol consumption are as yet poorly understood. However, the aim of this study was not to identify whether watching particular television programmes or listening to certain radio programmes increases alcohol consumption by young people but to first quantify their levels of exposure to alcohol references and images. Consequently, this small study should be seen as an impetus firstly for more work examining the relationship between programmes watched by young people and their effects on behaviour and secondly, for health professionals and programmers to examine how they can both work with radio and television mediums to protect and promote health amongst young people.

R e f e r e n c e s

- 1 Alcohol Concern (2001). Alcohol misuse costing country £6 billion. Press Release. 31st January 2001.
- 2 Kershaw C, Budd T, Kinshott G, Mattinson J, Mayhew P and Myhill A (2000). The 2000 British Crime Survey: England and Wales. Home Office: London
- 3 British Medical Association (1989). Alcohol and Accidents. British Medical Association: London
- 4 Health Education Authority (1998). Health Update – Alcohol. Health Education Authority: London. Cited by Alcohol Concern (2001). Young People and Alcohol. Fact Sheet 7. Alcohol Concern: London
- 5 Action on Smoking and Health (2002). Basic Facts No. 2: Smoking and Disease. ASH: London
- 6 Department of Health (1998). Smoking Kills: A White Paper on Tobacco. The Stationery Office: London
- 7 Cook PA, Rimmer P, Towle A, Syed Q and Bellis MA (2001). HIV and AIDS in the North West of England 2000. North West HIV/AIDS Monitoring Unit, Liverpool John Moores University: Liverpool
- 8 Home Office (2002). Drug minister highlights savings in criminal justice costs of drug treatment expenditure. Press Release, 041/2002, 12th February 2002
- 9 National Centre for Social Research/National Foundation for Educational Research (2002). Drug use, smoking and drinking among young people in England in 2001. Preliminary results. Statistical Press Notice. Department of Health: London
- 10 Parker H, Aldridge J and Measham F (1998). Illegal Leisure: the normalisation of adolescent recreational drug use. Routledge: London
- 11 NHS London (2001). Coronation Street boost for cancer screening. Moving on Modernisation: A newsletter for health and partner organisations. Issue No.8, September 2001
- 12 Broadcasters Audience Research Board Ltd (2001). Weekly Viewing Summary, 01/10/01 and 08/10/01. www.barb.co.uk
- 13 Radio Advertising Bureau (2001). Using Radio to Reach Youth Markets, RAB Guide, www.rab.co.uk, accessed 30th October 2001
- 14 Abba K and Bellis MA (2000). An Evaluation of Drug and Alcohol Services for Young People in North West Cheshire. Public Health Sector, Liverpool John Moores University: Liverpool
- 15 Alcohol Concern (2001). Young People and Alcohol. Fact Sheet 7. Alcohol Concern: London
- 16 Hibell B et al (2000). The 1999 ESPAD report : alcohol and other drug use among students in 30 European countries. Swedish Council for Information on Alcohol and Other Drugs. Cited by Alcohol Concern (2001). Young People's Drinking. Fact Sheet 1. Alcohol Concern: London
- 17 Robson, W, Alcohol and young people 1997. Alcoholism, the newsletter of the MCA, vol 16, no 6. Cited by Alcohol Concern (2001). Young People and Alcohol. Fact Sheet 7. Alcohol Concern: London
- 18 Wight D, Hernderson M, Raab G, Abraham C, Buston K, Scott S and Hart G (2000). Extent of regretted sexual intercourse among young teenagers in Scotland: a cross sectional survey. British Medical Journal, 320: 1243-1244
- 19 Department of Health (2001). Smoking, drinking and drug use among young teenagers in 2000: A survey carried out on behalf of the Department of Health by the National Centre for Social Research and the National Foundations for Educational Research, The Stationery Office: London
- 20 Matheson J and Babb P (2002). Social Trends No 32. National Statistics: London
- 21 Matheson J and Summerfield C (2001). Social Trends No 31. National Statistics: London
- 22 World Health Organisation (1995). WHO European Charter on Alcohol. World Health Organisation
- 23 Alcohol Concern (1999). Proposals for a National Alcohol Strategy for England. Alcohol Concern: London
- 24 Institute of Alcohol Studies. IAS Factsheet: Alcohol and Advertising. Institute of Alcohol Studies: London
- 25 Radio Advertising Bureau (2001). Harnessing the Power of Radio for Alcoholic Drinks Brands. RAB Guide, www.rab.co.uk, accessed 20th October 2001
- 26 Public Health Laboratory Service (1994). AIDS and HIV-1 infection in the United Kingdom: monthly report. Communicable Disease Report Weekly, 4 (24), 17th June 1994
- 27 BBC (2001). Foot-and-mouth hits the soaps. BBC News, Thursday 1st March 2001, www.bbc.co.uk, accessed 8th April 2002

YOUNG PEOPLE'S EXPOSURE TO ALCOHOL: THE ROLE OF RADIO AND TELEVISION

Georgina Pitt*, Diana Forrest**,
Karen Hughes* & Mark A. Bellis*

* Centre for Public Health
Liverpool John Moores University
70 Great Crosshall Street
Liverpool, L3 2AB
Tel. 0151 231 4301

** Knowsley Primary Care Trust
Knowsley, Liverpool.
L33 7XW
Tel. 0151 477 4722

