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**Binge drinking behaviour, attitudes and beliefs in a UK community sample: an analysis by gender, age and deprivation.**

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**Abstract**

Binge drinking has sparked considerable interest and concern. However despite this interest little is known about the lay understanding of binge drinking and whether there are differences in understanding by gender, age and level of deprivation. **Aims:** This study investigated the beliefs and attitudes of a sample in the Inverclyde area to binge drinking. **Methods:** Using both cluster and quota sampling, 586 subjects completed a structured interview, using open questions about their beliefs on binge drinking and was it a problem generally and locally. **Findings:** Definitions of binge drinking tended to concentrate on intoxication and some described a dependent drinking pattern. Causes and solutions offered were varied but pointed up levels of deprivation in respect of jobs and entertainment. More subjects regarded binge drinking as a problem in society than locally, which is consistent with research suggesting that misperceptions of others' drinking increases with social distance. Differences in beliefs were found by age and level of deprivation but not gender. It was marked that no subject offered the 'official' definition of bingeing or even an approximation of it. **Conclusions:** Further research is required if future mass media campaigns and interventions are to be relevant to the population.

## Introduction

Binge drinking is an issue of increasing academic and popular interest in the UK and abroad (Kuntsche, et al. 2004), having been linked to a wide range of health and social problems (Rehm, et al. 1996; Okoro et al. 2004). It has become a focus of media attention and is frequently cited as a target for intervention in government policy documents in the UK such as the Alcohol Harm Reduction Strategy for England (Cabinet Office, 2004) and the Plan for Action on Alcohol Problems (Scottish Executive, 2002). Part of the reason for this concern comes from the rise in alcohol consumption and alcohol related deaths. Per capita alcohol consumption in the UK has risen steadily since the 1940s (Plant & Plant, 2006) and liver cirrhosis mortality rate has doubled in Scotland between 1987 and 2001, with rates in England increasing by two thirds (Leon & McCambridge, 2006). In such alcohol policy documents binge drinking has typically been defined as a male consuming 8 or more alcohol units or a female consuming 6 or more units in one session, with one unit equating to 8g of ethanol. If this criteria is applied to data from such studies as the Health Survey for England 2003 (Sproston & Primatesta, 2004) then approximately one third of adult males and one fifth of adult females binge drink in the UK at least once a week. It should be noted though, as has been discussed elsewhere, that this 8/ 6 unit definition has been applied inconsistently in government publications, undermining the validity of such figures (McAlaney & McMahan, 2006). Furthermore the 8/6 unit definition has been questioned in terms of how predictable it is of actual blood alcohol level and intoxication, given that it does not for example take into the account the duration of the drinking session (Hammersley & Ditton, 2005; Wright, 2006). This is a criticism which has been applied to other dichotomous volume based definitions of binge drinking, such as the 5+ drinks measure which is used in North America and parts of Europe (Gmel et al. 2003).

As with the majority of binge drinking research much of the work which has been conducted in the UK has focused on young adults in the 16–25 year old age range, with little research on the wider adult population. Young adults are also often the section of the population targeted in binge drinking and alcohol consumption health education, such as in the recent ‘Know Your Limits’ campaign from the UK government ([www.knowyourlimits.gov.uk](http://www.knowyourlimits.gov.uk)). However it is important to acknowledge that binge drinking is not an activity confined solely to young adults. The results of the most recently available General Household Survey (Office of National Statistics, 2005) for example reports that whilst approximately 44% of males aged 16-24 exceeded 8 units in one session at least once in the previous week 38% of older males aged 25–44 did likewise. In addition 18% of males aged 45–64 reported having drunk at least once a week over the 8/ 6 units limit (which although these limits have come to be defined as the binge drinking criteria, it should be stressed that the GHS does not itself use the phrase ‘binge drinking’). Thus although younger age groups do have the highest rates of binge drinking in the population, the level in of binge drinking in adults over 25 is not negligible. This has been observed elsewhere by Jeffries et al. (2005), who conducted a longitudinal study into binge drinking in a national birth cohort. They noted that binge drinking was common in older age groups, albeit to a lesser extent than the younger age group. As Weitzman and Nelson (2004) comment in their discussion of the ‘prevention paradox’, since there are more people in the population in the above 25 group than below it they may be responsible for the bulk

of alcohol related harm, even if their overall level of binge drinking behaviour is less than that of the younger group.

The approach by health educators and policy makers has to date therefore centred on young adults and been based on a conceptualisation of binge drinking defined in terms of number of alcohol units consumed, with interventions designed accordingly. However the efficacy of these policies and their associated alcohol education strategies have come under increasing criticism. The Alcohol Harm Reduction Strategy for England for example has been criticised by numerous researchers (e.g. Drummond 2004; Room 2004; Luty 2005) for its lack of any clear, evidence based solutions. Part of the concerns about these policies derive from their intended use of alcohol education as a means for reducing binge drinking behaviour, a strategy which has not been established to be effective. Lader and Goddard (2004) for instance have noted that despite various public alcohol education programmes in recent years there has not been a rise in the number of adults who can correctly identify what the recommended maximum daily intake of alcohol units actually are. In addition Foxcroft et al.(2003) conducted a systematic review of primary prevention of alcohol misuse in young adults and came to the conclusion that there was no persuasive evidence that alcohol education programmes had any significant effect on long term alcohol consumption behaviour. This is a sentiment echoed by several other researchers in the field (e.g. Babor et al., 2003; Crombie et al., 2005).

The continued lack of success of alcohol consumption/ binge drinking reduction campaigns may be in part due to the fact that there remains surprisingly little research on how binge drinking operates in society and how it is perceived by the general public. Several authors have recently stressed the need for a much broader understanding of the cultural and socioeconomic background of binge drinking if effective interventions are to be delivered (e.g. Hayward, 2004; Measham, 2006). Cameron et al. (2000) for example noted that different cultures – including Scotland as compared to England – conceive of and describe drunkenness in very different ways. This may be indicative of more complex social processes underlying behaviours such as binge drinking than is perhaps generally acknowledged. A better understanding of such processes could allow for the design of more evidence based alcohol education/ harm reduction approaches. Two factors in particular merit further research. Firstly there is the relationship between sociodemographic deprivation and binge drinking in the UK. Previous research in other countries has demonstrated that this is potentially an important relationship, if not necessarily an easily predicted one. For example, whilst research in Israel has found the most deprived groups to have the highest rates of binge drinking (Neumark, et al. 2003) similar work in Brazil found binge drinking in fact to be more common in the most affluent groups (Filho - Almeida, et al. 2005). Secondly there is the possibility that societal beliefs about binge drinking are themselves a casual factor of binge drinking behaviour. Research from the American college system into normative perceptions has noted that beliefs about the prevalence and acceptability of binge drinking are important determinants of an individual's own binge drinking behaviour. Overall, respondents in such studies have been found to increasingly overestimate the prevalence of binge drinking behaviour in other groups as social distance increases, with distal groups (e.g. people of the same age in the neighbourhood) being the most misperceived. Such misperceived norms are dangerous since, as predicted by social cognitive theory (Bandura, 1986); individuals are in general driven to match the behaviour of their

peers. These effects have been found to operate on numerous American college campuses and interventions based upon the processes have had notable success in reducing binge drinking behaviour (Bosari & Carey, 2001; 2003). It is therefore important to further understanding about how binge drinking is perceived in other groups, such as for example in general adult populations.

Data for the current study was taken from part of a larger survey commissioned by Inverclyde City Council into alcohol use in the Inverclyde area of Scotland, UK. This was a survey which was designed to include respondents from a wide range of sociodemographic and socioeconomic backgrounds. Several items specifically querying binge drinking as opposed to simply alcohol consumption were incorporated. In contrast to previous UK research these items covered not just the individual's personal rate of binge drinking but also their conceptualisation of 'binge drinking', their perceptions of the causes of it and their views of possible solutions. As such the study provided a wider and more in depth overview of binge drinking behaviour, attitudes and beliefs than have previously been recorded in a UK sample.

## **Method**

### *Participants*

Participants consisted of adults aged 18 or above who reported living within the Inverclyde City Council boundaries of Scotland in the United Kingdom. Two sampling methods were used, cluster sampling and quota sampling to obtain a total sample of 586 respondents (44% male, 56% female) with a mean age of 43.3 (s.d. 17.7).

### *Measures*

Respondents were interviewed using a standardised pro forma consisting of a mixture of open and closed questions covering attitudes to binge drinking and personal consumption.

In the first section respondents were asked to define binge drinking in their own words and state whether they thought it was a problem in their local area and in British society in general. This was followed by items on what they thought the causes of binge drinking were, what could be done to tackle the behaviour and in which demographic groups, if any, the thought binge drinking occurred in. The second section included items on how many units the respondent's believed there to be in a range of beverages and what the recommended drinking limits are for men and women (this second section is not reported in this paper). The final section, on respondent's personal consumption, was recorded using a 7 day retrospective diary measure, which provided information on both daily consumption levels and total weekly consumption.

### *Procedure*

50% of the subjects were recruited through doorstep interviews using cluster sampling of data zones in Inverclyde. This method was used to ensure that sufficient participants of different levels of socio-economic deprivation were recruited. Information on and selection of the data zones was provided by Inverclyde City Council based on the Scottish Index of Multiple Deprivation (SIMD) 2004. Although the SIMD (2004) can categorise subjects into 5 deprivation levels, it is suggested that comparisons across all 5 levels can result in spurious results and hence it is recommended that comparisons should be confined to those in the 20% most deprived category and the rest of the population.

The remainder of the participants were also recruited using quota sampling (to ensure sufficient subjects in each gender and age range). Potential subjects were approached in the streets surrounding a shopping centre and invited to take part in the survey. This group of participants was asked for the first part of their home post-code to classify their level of deprivation, again using the SIMD categories.

## Results

### *Sample characteristics*

A total of 586 respondents were interviewed, 44% male and 56% female with a mean age of 43.3 (s.d. 17.7). Deprivation in the sample was notably polarised, with 27.3% of respondents in the lowest category of deprivation and 42.6% in the highest. This reflects the socio-economic range of the Inverclyde area, which contains both some of the most affluent and deprived areas of Scotland.

### *Alcohol consumption*

Male respondents had a mean total weekly alcohol consumption of 16.6 units, which was significantly higher than the mean consumption of females of 9.1 units ( $t = 5.41$ ,  $df = 581$ ,  $p < 0.001$ ). On the basis of the current UK government recommendations for maximum weekly intake (21 units for males, 14 units for females) 26.8% of males and 20.9% of females drank over the limits. However of this subgroup who stayed beneath the weekly limits 21% of males and 24% of females binge drank at least once in the previous week, as determined by the 8/ 6 unit definition. In total 41.5% of males and 39.3% of females qualified as having binge drank at least once in the previous week. This is broken down into gender and age range in table 1 and by deprivation level in table 2.

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Insert table 1 and table 2 about here

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Those in the most deprived group were significantly more likely to have binge drank at least once in the previous week than those in the other SIMD categories ( $\chi^2 = 27.032$ ,  $p < 0.001$ ). Those aged 49 or below were significantly more likely to have binge drank in the previous week than older adults ( $\chi^2 = 35.666$ ,  $p < 0.001$ ). In addition those aged 16–24 were significantly more likely to have binge drank than those aged 25–49 ( $\chi^2 = 5.027$ ,  $p < 0.05$ ). There were no significant gender effects found on rate of binge drinking in the previous week.

### *Views on binge drinking as a problem in society*

Asked about their view about whether binge drinking was a problem 87.2% of respondents responded that they did think that binge drinking was a problem in society in general, with woman (90% vs. 83%) significantly more likely to do so than men ( $\chi^2 = 8.187$ ,  $p < 0.05$ ). A significantly lower percentage (70%) of the heaviest drinkers in the sample (those with the highest weekly intake) viewed binge drinking as a problem in society ( $\chi^2 = 13.3$ ,  $p < 0.01$ ). When asked whether binge drinking was a problem in their own local area the overall percentage of people who viewed binge drinking as a problem was considerably lower at 66.9%. There was no significant effect of deprivation on these perceptions of binge drinking as a problem locally or in society in general.



When asked who they felt the binge drinkers were, the majority of respondents, 65.5%, stated that they felt binge drinking was a problem of young adults and teenagers, whereas 31.6% felt that it is a problem in all age groups. There were no significant effects of age, gender, level of deprivation or personal consumption on this item.

### *Definitions of binge drinking*

Questions on definitions, causes and solutions to binge drinking were all open and produced a large range of answers. These answers were scrutinised and classified into categories that best represented the respondents' meaning. Some answers could not be classified in this way however there were so few, and hence unrepresentative, that they have been omitted from this results section.

Answers to the question regarding the respondent's definition of binge drinking were coded into six categories. It should be noted that the answers given amass to more than 100% as most respondents gave more than one answer. The most common (50%) category was drinking beyond personal limits, that is consuming alcohol at a rate which was beyond the individual's alcohol tolerance eg "People drinking too much" (Female 74) and "Drinking rapidly in a short space of time" (Male 39). The next category was heavy weekend drinking (21%) eg "Someone who drinks excessively at weekends, but not during the week" (Female, 23) and "Excessive drinking, especially at weekends and in the city centre" (Male 33). This was closely matched with drinking with the intention to become drunk (20%) eg "Getting plastered" (Female 28) and "Going out with the intention to get drunk" (Female 74). This was followed by drinking until physically unable to continue (11%) eg "People drinking till they get sick" (Female, 47) and "Drinking as much as you can as quickly as you can" (Male, 78). The last two categories were heavy infrequent episodic drinking (10%) and continuous drinking (8%) eg "Drinking for a few days solid" (Male 39) and "Drinking excessively every night" (Male 22). These definitions would appear to refer back to the other older definition of binge drinking, that is as a continuous episode of heavy drinking by a dependent drinker. The data for these definitions are presented in tables 3 and 4.

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Insert table 3 and table 4 about here

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Chi-square analysis was used to check for any significant differences between groups in terms of gender, age range and SIMD category. There were no significant age or gender effects evident on the definitions of binge drinking that people gave. There were however several significant differences between respondents from the most deprived areas and the rest of the sample. Those in the highest category of deprivation were significantly less likely to define binge drinking as an individual drinking beyond their personal limits ( $\chi^2=8.56$ ,  $p<0.01$ ); but more likely to define it as drinking with the intention to become drunk ( $\chi^2=7.53$ ,  $p<0.01$ ) and as drinking to intoxication continually ( $\chi^2=13.33$ ,  $p<0.001$ ).

Another aspect that was evident, but is rarely mentioned in the literature, was fun or enjoyment. A small but significant number mentioned these characteristics of 'binge

drinking' almost by way of differentiating it from 'problem drinking'. For example one subject defined drinking as "Going to have fun and drinking too much" (Male 18) and another as "Drinking to enjoy it, drinking to have fun" (Male 22).

### *Causes of binge drinking*

Using the same procedure described above answers to the question regarding the causes of binge drinking were coded into seven categories. The first and most common (35%) was boredom or lack of other things to do eg "Young people have nothing to do and don't understand the consequences" (Male 52) and "Its just boredom" (Female 53). The second (18%) was peer pressure or 'everyone is doing it' eg "Peer pressure and to show off" (Female 36) and "It's part of British culture" (Female 49). The third (18%) was the ubiquitous availability of alcohol eg 'Too many happy hours...alcohol is too accessible' (Male 62) and 'Drink is too cheap because of things like drink promotions' (Female 25). Fourth, socioeconomic deprivation (9%) described the lack of jobs and employment or life opportunities eg "People are unemployed and have nothing to do" (Female 46) and "High unemployment, poor housing and poor education" (Male 24). The fifth (7%) was couched in terms that drinking was enjoyable and fun "People just want to have fun" (Female, 19) and "People work all week, they want to have fun" (Male 23). The sixth (8%) blamed poor parental control or role modelling e.g. "Lack of family discipline" (Female 50) and "Young people copying what they see adults doing" (Female 47) and finally that people had too much disposable income (6%) eg 'People lack responsibility and have too much money' (Female 56) and "Not enough discipline and too much money" (Female 77). The data for these perceptions of the causes of binge drinking are presented in tables 5 and 6.

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Insert table 5 and table 6 about here

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This time significant differences were found. Older adults in the 50+ age group were significantly less likely than the younger subjects to cite boredom ( $\chi^2=19.45$ ,  $p<0.01$ ) or socialisation/fun ( $\chi^2=10.07$ ,  $p<0.05$ ) as reasons for binge drinking. Differences were also found for SIMD category. Respondents from the most deprived areas were also significantly more likely than the rest of the sample to cite boredom as a cause ( $\chi^2=10.49$ ,  $p<0.05$ ) but were less likely to cite the availability of alcohol ( $\chi^2=8.57$ ,  $p<0.001$ ). Perhaps unsurprisingly people in the most deprived areas were also significantly more likely to cite deprivation as a cause of binge drinking ( $\chi^2=10.96$ ,  $p<0.001$ ). No gender effects were found on any reason given for why people binge drink.

Other reasons given were

'People work hard all week and feel they deserve a drink' (Male, 23)

'To cope with life' (Male, 38)

### *Solutions to binge drinking*

The answers respondents gave for possible ways to reduce binge drinking behaviour in society were coded into six categories. The first and most common (35%) was for more entertainment facilities, with the majority discussing alternatives to drinking rather than more licensed premises eg “Have more places to go out” (Male, 18) and “Have more facilities in the area, things that are cheap so that people can use them” (Female 62). Health education (25%) was the second most popular solution eg “More alcohol education” (Male 18) and “Improve parenting skills” (Male 33). The third solution (14%) called for a cessation of promotional offers on alcohol, supermarket offers and ‘happy hours’ in bars “Ban drink promotions and happy hours” (Female 36) and “All pubs and clubs should charge the same price for alcohol” (Female 51). 10% suggested an increase in police on the streets eg “Better policing” (Female 71). The fifth suggestion (9%) was for investment in the area in terms of jobs and the general infrastructure and amenities eg “More jobs” (Male 34) and “Give young people something to do” (Female 33). The final suggestion (7%) was for a change in the licensing hours with 1% suggesting longer hours and the rest suggesting shorter hours. The data for these suggested measures to reduce binge drinking is presented in tables 7 and 8. Some examples of answers given to this item are as follows –

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Insert table 7 and table 8 about here

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Those in the age group of 25–49 were significantly more likely to cite better health education as a possible solution to binge drinking than those in the older or younger age groups ( $\chi^2=13.712$ ,  $p<0.001$ ). Those in the most deprived group were significantly more likely to cite the provision of better entertainment facilities (e.g. cinema, youth club) than the rest of the sample ( $\chi^2=9.218$ ,  $p<0.05$ ), as were those in the youngest age group ( $\chi^2=37.594$ ,  $p<0.001$ ). In addition respondents from the deprived group were significantly less likely to cite ending promotional offers as a solution ( $\chi^2=6.937$ ,  $p<0.05$ ) and more likely to cite economic investment into the area ( $\chi^2=10.968$ ,  $p<0.01$ ). This latter solution was also significantly more likely to be suggested by respondents in the oldest age group than those in the younger two ( $\chi^2=7.001$ ,  $p<0.01$ ).

Other solutions offered included

‘Change the drinking culture so that it is more like Europe, with longer opening hours’ (Male, 18)

‘Reduce benefits for binge drinkers’ (Female, 73)

‘Parents need to have better control over their kids’ (Female, 40)

‘There isn’t much you can do about it, if people want to get drunk you can’t stop them’ (Female, 36)

‘Pubs need to take more responsibility’ (Male 52)

‘Have less alcohol advertising’ (Male 31)

## Discussion

The rates of binge drinking behaviour reported in this study are comparable to those found in previous alcohol consumption surveys (e.g. NHS National Services Scotland 2005). As with previous surveys the current study also demonstrates that binge drinking and drinking to intoxication occur in all ages, albeit to a lesser extent in older age groups. This underlines the point that it is important to recognise that binge drinking is an issue for the entire population and not just the sub group of young adults. This view was reflected in the current survey, with two-thirds of respondents in the current survey, both young and old, stated that they saw binge drinking to be a problem of young adults. Such a misperception is potentially dangerous as it may make older adults who do binge drink less receptive to binge drinking education campaigns as they may not identify themselves as belonging to the target group. A belief that binge drinking is a problem primarily of young adults may also encourage the belief within the young adult population that binge drinking is the norm for that group. As illustrated in the aforementioned research from the US college system (Bosari & Carey, 2003), a belief that binge drinking is the norm for a group can become a self fulfilling prophecy in that individuals in the group will strive to meet that norm, even if it is in fact incorrect. This also applies to the current anti binge drinking campaigns taking place in the UK. By running media campaigns which include depictions of young adults engaging in binge drinking, there is a risk of inadvertently fuelling misperceptions of how common binge drinking in that group actually is.

In keeping with previous research the heaviest drinkers in the sample were themselves the least likely to view binge drinking as a problem in society. This is a demonstration of a false consensus effect, as documented in numerous American college studies (Bosari & Carey, 2003), in which the heaviest drinking minority view their behaviour to be common and socially accepted. There was also a suggestion that as in the American college studies that individual's misperception of binge drinking in others grew as did their social distance to them. This can be seen in the fact that overall more respondents perceived binge drinking to be a problem in society in general than perceived it to be a problem in the local area, a similar result has been found in the UK (McAlaney & McMahon in press). There is no indication from previous alcohol consumption surveys (e.g. General Household Survey, 2003) that this area of Scotland does have notably lower level of alcohol consumption than the UK average. As such this belief would appear to be incorrect. An alternative explanation of this apparent discrepancy between the respondent's views of the rates binge drinking in society and their own local experience is the media. Articles about binge drinking have been in media frequently in the UK in the last several years, partly due to changes in licensing laws which were implemented in order to reduce alcohol related harm. As discussed in relation to health education campaigns media articles which report binge drinking may indirectly fuel the behaviour by suggesting it to be more common than it actually is.

In terms of the wider public views on binge a diverse range of opinions and perceptions were stated. What was marked in relation to respondent's definitions of binge drinking was the fact that no one gave the 'official' definition of twice the daily limits or 8/6 criteria or indeed any definition based on a specified amount of alcohol. Instead a number of other features were described including intoxication, dependence,

tension relief and celebration. For this sample one of the main defining features was intoxication, which was evident in three of the definitions, drinking beyond personal limits, drinking to get drunk and drinking until physically unable to continue. A second feature is the apparent confusion with the other definition of bingeing, that binge drinking is heavy episodic drinking or continuous drinking. In proposing these definitions many respondents intimated a problematic style of drinking underpinned by dependence.

In relation to the causes of binge drinking, respondents again gave an array of reasons. Reasons ranged from boredom, the most common, through (in decreasing popularity) peer pressure, availability of alcohol, socioeconomic deprivation, socialisation, poor parenting, to the least popular excess disposable income. Again there were no gender differences found on the causes, however differences were found with both age and deprivation. The younger respondents and those in the most deprived category were more likely to view boredom as a reason for binge drinking. Younger respondents were also more likely to cite socialisation or fun as a reason (a factor that is often overlooked in discussions of substance use). The most deprived respondents were more likely to offer deprivation as a cause and less likely to cite the availability of alcohol or, unsurprisingly, excess disposable income. This diversity of perceptions of the causes of binge drinking was reflected in the diversity of suggested solutions. Consistent with their view of the main cause, boredom, the main suggested solution was improved entertainment facilities, in the majority non alcohol-related. Other solutions offered were, in descending order of popularity, health education, ending promotional offers, more visible policing, economic investment in the area (particularly jobs) and changes to the licensing hours (mostly more restrictive). The diversity of solutions offered in this study contrast with previous research into perceptions of solutions to binge drinking in young and underage drinkers (Bromley and Ormston, 2005) in which solutions suggested tended to be more immediate and practical, such as better health education or policing, solutions that were still in evidence here. This may reflect the approach taken by the research, which is that no one group (age, gender, deprivation category or other grouping) was targeted or made the subject of the questions.

Overall the most notable aspect of the respondent's perceptions of binge drinking was how varied they were. This supports the view that despite the media and government rhetoric on the topic there is a dearth of understanding as to what binge drinking means to the average adult in the UK. Deprivation in particular appeared to be an important factor in determining respondent's perceptions of binge drinking. This is something which may need to given greater consideration in the design of future binge drinking interventions, although it does of course also suggest that binge drinking behaviour may naturally reduce if wider scale issues of deprivation were addressed. The current study clearly shows the ambiguity and complexity of the concept of binge drinking, which is a reflection of the wider ambivalence towards alcohol in contemporary society. Whilst the government tends to define binge drinking in terms of the number of units of alcohol consumed, the more individual and subjective perception of the public appears to focus on drinking beyond one's own personal limits. The absence of a shared understanding of what actually constitutes this type of drinking behaviour renders the implementation of effective prevention measures impossible. Therefore, it is essential that further in-depth research be conducted to clarify the public perception of binge drinking, which would

then enable the development of a more coherent and accessible definition, with which the public could readily identify and against which they could judge their drinking behaviours.

### *Conclusions*

The results of this study suggest a gulf between the layperson's understanding of binge drinking, causes and solutions and that of the 'professionals'. No respondent gave a definition couched in units but instead gave definitions in terms of intoxication and weekend drinking. The perceived causes of binge drinking were diverse, as were the proposed solutions to it. One pervading factor that underlay opinions of bingeing was deprivation. This was expressed in both the causes and solutions as both economic deprivation and amenities and entertainment. However it also had the most marked influence on opinions, for although age and gender were factors on several items levels of deprivation were particularly influential on beliefs about binge drinking behaviour and how this may be changed.

In conclusion there is a need for further understanding of how binge drinking is perceived by the public. This would allow for better informed health education messages which members of the public can more easily relate too. Caution also needs to be taken that media reports and health education campaigns do not indirectly reinforce the stereotype that binge drinking is only a problem of young adults or only something which happens at weekends. If not then health education campaigns may fail to connect with large sections of the population who, although not the heaviest binge drinkers, still binge drink to an extent which is a cause for concern.

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Binge Drinking in Inverclyde

<b>Age range</b>	<b>16 - 24</b>	<b>25 - 34</b>	<b>35 - 44</b>	<b>45 - 54</b>	<b>55 - 64</b>	<b>65 or above</b>
<b>Male</b>	64%	50%	45%	33%	36%	10%
<b>Female</b>	60%	55%	42%	36%	39%	13%

Table 1 Percentage Binge drinkers by Age Group

<b>Age range</b>	<b>High deprivation</b>	<b>Remainder of sample</b>
<b>Male</b>	47%	31%
<b>Female</b>	41%	28%

Table 2 Percentage Binge drinkers by Deprivation Level

Definitions	18 - 29		30 - 49		50+		Total
	Male	Female	Male	Female	Male	Female	
<b>Drinking beyond personal limits</b>	57%	51%	52%	53%	40%	50%	50%
<b>Heavy weekend drinking</b>	22%	32%	20%	24%	12%	17%	21%
<b>Drinking to become drunk</b>	14%	19%	22%	19%	20%	23%	20%
<b>Drinking until physically unable to continue</b>	10%	12%	13%	8%	13%	10%	11%
<b>Heavy infrequent episodic drinking</b>	5%	8%	13%	18%	8%	8%	10%
<b>Continuous drinking</b>	3%	7%	9%	6%	14%	7%	8%

Table 3. Respondent's definitions of binge drinking by gender and age range

Definitions	Highest deprivation		Rest of Sample	
	Male	Female	Male	Female
<b>Drinking beyond personal limits</b>	43%	43%	53%	57%
<b>Heavy weekend drinking</b>	20%	27%	16%	22%
<b>Drinking to become drunk</b>	15%	14%	21%	25%
<b>Drinking until physically unable to continue</b>	10%	7%	14%	11%
<b>Heavy infrequent episodic drinking</b>	13%	6%	16%	9%
<b>Continuous drinking</b>	14%	12%	6%	3%

Table 4. Respondent's definitions of binge drinking by SIMD level and Gender

Perceived causes	18 - 29		30 – 49		50+		Total
	Male	Female	Male	Female	Male	Female	
<b>Boredom</b>	42%	45%	38%	38%	25%	24%	35%
<b>Peer pressure</b>	21%	23%	19%	18%	16%	15%	18%
<b>Availability of alcohol</b>	16%	23%	27%	15%	19%	13%	18%
<b>Socioeconomic deprivation</b>	6%	6%	11%	13%	19%	10%	11%
<b>Socialisation/ fun</b>	12%	9%	8%	9%	3%	4%	7%
<b>Poor parenting</b>	4%	1%	5%	8%	12%	13%	8%
<b>Excess disposable income</b>	3%	2%	6%	2%	10%	10%	6%

Table 5. Respondent's perceptions of the causes of binge drinking by gender and age range

Perceived causes	Highest deprivation		Remainder of sample	
	Male	Female	Male	Female
<b>Boredom</b>	37%	46%	32%	27%
<b>Peer pressure</b>	16%	15%	20%	21%
<b>Availability of alcohol</b>	15%	11%	24%	21%
<b>Socioeconomic deprivation</b>	18%	15%	10%	6%
<b>Socialisation/ fun</b>	11%	8%	5%	15%
<b>Poor Parenting</b>	5%	7%	9%	8%
<b>Excess disposable income</b>	2%	3%	10%	7%

Table 6. Respondent's definitions of binge drinking by SIMD level and Gender



Proposed solutions	18 - 29		30 – 49		50+		Total
	Male	Female	Male	Female	Male	Female	
<b>More entertainment facilities</b>	45%	42%	22%	30%	19%	13%	28%
<b>Health education</b>	27%	20%	30%	35%	22%	14%	25%
<b>Ending promotional offers</b>	6%	16%	14%	13%	16%	16%	14%
<b>More visible policing</b>	4%	8%	8%	2%	20%	19%	10%
<b>Economic investment in area</b>	5%	5%	8%	7%	18%	8%	9%
<b>Changes to licensing hours</b>	12%	2%	8%	8%	9%	5%	7%

Table 7. Respondent’s proposed solutions to reduce binge drinking behaviour

Proposed solutions	Highest deprivation		Remainder of sample	
	Male	Female	Male	Female
<b>More entertainment facilities</b>	28%	38%	28%	20%
<b>Health education</b>	26%	19%	26%	27%
<b>Ending promotional offers</b>	10%	9%	14%	19%
<b>More visible policing</b>	14%	7%	12%	12%
<b>Economic investment in area</b>	15%	12%	9%	3%
<b>Changes to licensing hours</b>	7%	7%	13%	8%

Table 8. Respondent's definitions of binge drinking by SIMD level and Gender