# Young People's Images of Cigarettes, Alcohol and Drugs

LEEMING, D., HANLEY, M. & LYTTLE, S.

Leeming, D., Hanley, M. & Lyttle, S. (2002). Young people's images of cigarettes, alcohol and drugs. *Drugs: Education, Prevention & Policy*, 9, 2, 169-185.

## Abstract

To meet their aim of reducing the acceptability of psychoactive substances to young people, the designers of drug prevention programmes need to have a thorough understanding of the personal views already held by their audience with respect to the object of attitude and behavioural change. However, few studies involving younger adolescents have collated participant-generated impressions of a range of legal and illegal substances. The present study used a word association methodology to explore adolescents' impressions of cigarette smoking, drinking alcohol and taking a range of illegal drugs. In total, 3571 images were generated which were placed into 24 categories on the basis of content analysis. The predominance of negative imagery was of note, particularly for cigarette smoking and drug taking and there was little evidence of a simplistic generic attitude to substance use. Images of alcohol, especially alcopops, were markedly more positive and were much less likely to contain reference to specific health problems than the images of cigarette smoking. However, there was less differentiation between `hard' and `soft' illegal drugs than has been found with older adolescents in other studies and many of the images relating to illegal drugs were poorly defined, revealing vague notions of danger and risk. The present methodology is proposed as a useful tool for assessing attitudes both prior to and following prevention programmes and it is suggested, based on the wide variation in images elicited, that successful prevention dialogues with young people may need to vary their message according to the particular substance targeted.

## Introduction

Whether drug and alcohol prevention programmes for adolescents are concerned with preventing initial use, delaying onset of use, decreasing use or otherwise reducing harm, the intention is usually to change attitudes, as well as behaviour, and in some way reduce the acceptability of psychoactive substances, or behaviours associated with them, to young people. In order to address this task adequately, intervention groups need to have a clear awareness of the personal views already held by the target audience with respect to a range of substances. However, as Parker et al. (1995, p. 6) note, young people have often been regarded as `the object of change, not subjects with knowledge, views and ideas about the use of illicit drugs'.

In fact, it would seem that young people express fairly clear views of at least some substances up to several years before prevention strategies tend to be initiated by educational establishments. Through the use of developmentally appropriate data-collection methods, young children have been found to possess knowledge of, and a variety of attitudes towards, the consumption of alcohol (Jahoda & Crammond, 1972). More recently, Fossey (1993) found that children aged 5-10 years reported more factual information and increasingly negative responses to photographs of adults consuming alcoholic drinks and smoking tobacco as a function of increasing child age. Moreover, the children's attitudes varied depending on the sex of the adult target, with female consumers being judged more harshly than their male counterparts.

Where the substance-related attitudes of older children and adolescents have been investigated, it has been common for researchers to employ Likert-type scales that measure the extent to which participants agree with a number of stereotyped statements regarding substance use (e.g. Botvin et al., 1990; Epstein et al., 1995; Hammersley et al., 1997). Although a number of these scales have been developed on the basis of information generated from initial discussions with young people (e.g. Brown et al., 1987, conducted interviews with adolescents in order to develop their Alcohol Expectancy Questionnaire), subsequent research investigating substance-related

attitudes using such measures has often been carried out at the expense of exploring the personal meaning that particular psychoactive substances have for the young people involved. However, a growing number of investigators have, by means of open-ended prompts, attempted to explore young people's more general views of a range of psychoactive substances.

For example, based on participant observation and interviews with 100 adolescents in the north-eastern USA, Glassner & Loughlin (1987) described the uses, meanings, motivations and consequences of drug use from the perspective of adolescents. More recently, Benthin et al. (1995), again in the USA, used a word association methodology to collect information from 411 young people about their images of drinking beer, drinking spirits, smoking cigarettes and smoking marijuana. This enabled an exploration of attitudes that considered affective associations as well as cognitions about likely outcomes. They noted similarities in positive imagery across the various substances but a diversity of negative imagery that corresponded with patterns of use. However, given that substance use has been shown to vary across time (Roberts et al., 1995; Wright & Pearl, 1995) and place (Miller & Plant, 1996), it is reasonable to assume that attitudes towards such substances are culturally mediated. Thus, although data on adolescents in the USA might have some value in informing prevention work in the UK, there is a need for similar data from more representative local groups.

Although there have been a number of UK studies which have explored views about substances in some depth, these have tended to focus on older adolescents and young adults who are already established consumers of the substances being researched (e.g. Plant, 1975; Power et al., 1996). However, if a thorough understanding of the context of substance use is to be obtained, research needs to focus not only on those individuals who already consume psychoactive substances, but also on those who are entering a stage of development when they are likely to become exposed to substance use. Clearly, then, in order to design drug prevention programmes

which appropriately address the needs of UK youth, it is necessary to explore the drug-related attitudes of young people living in the UK at a time when these views are being formed.

A review of the literature suggests a dearth of such data. One recent focus group study by Wibberley (1997) is notable in that it involved the collection of detailed qualitative data from a cross-section of adolescents. The data highlighted the active participation of young people in negotiating drug use with peer groups and the relative acceptance of the use of `soft' drugs. Although the participants distinguished between `hard' and `soft' drugs, they were not asked in detail about their impressions of different drugs nor were they asked about cigarettes or alcohol. One of the few other qualitative studies in this area (Foxcroft et al., 1994) had similar limitations in that it focused only on alcohol. On the basis of an analysis of a small number of written statements, it was concluded that the young people in the study were broadly tolerant of moderate teenage alcohol use. In both studies, all participants were above 14 years of age. Given that experimentation with both alcohol and other drugs can take place within the pre-teen and early teen years (Barnard et al., 1996; Cooke et al., 1997) and that positive and negative attitudes towards substances such as tobacco and alcohol are developing in the early and middle childhood years (Fossey, 1993; Jahoda & Crammond, 1972), it seems that there is a particular need for research which explores the exact nature of the views held by a representative range of younger individuals.

In summary, there has been a relative lack of studies investigating views of legal and illegal substances among UK youth. This seems an important omission if one assumes that prevention programmes will be more credible and therefore successful if they have a better understanding of the starting point of their target audience. In view of these issues, the current study had two broad objectives: (1) to describe the types of images held by a group of young UK adolescents regarding cigarettes, alcohol and a range of illegal drugs, and (2) to examine how images differed within and across substances.

## Method

### Participants

The participants for the study were drawn from year 8 in three Northamptonshire schools. Schools were selected to provide students from a range of social backgrounds. Two were small secondary schools that drew pupils from both urban and rural areas, and one was an urban middle school. One school was under Local Education Authority (LEA) control, one was grant maintained and one was voluntary aided with a religious affiliation. In total, 210 individuals agreed to participate in the study. The sociodemographic characteristics of the sample are detailed in Table 1. Table 2 (following page) indicates the level of previous direct experience with cigarettes, alcohol and other drugs. This was substantial for cigarettes and alcohol and much less common for other drugs. However, the reported levels of use were somewhat higher than other studies that have documented rates of substance use in younger UK adolescents (Adelekan et al., 1994; Barnard et al., 1996; Cooke et al., 1997). None of the three schools had introduced any formal drugs prevention education prior to the study.

**Table 1.** Sociodemographic characteristics of the sample (total $N = 210$)

| | *n* | % |
|---|---|---|
| Gender[a] | | |
| Male | 101 | 48.1 |
| Female | 108 | 51.4 |
| Age: mean = 13.4 years; SD = 0.6; range = 11 years 4 months to 14 years 8 months | | |
| Ethnicity[a] | | |
| White | 181 | 86.2 |
| Black Caribbean/Black African | 6 | 2.9 |
| Asian | 15 | 7.1 |
| Mixed race | 7 | 3.4 |
| Number of bedrooms at home[b] | | |
| One | 2 | 1 |
| Two | 10 | 4.8 |
| Three | 119 | 56.6 |
| Four | 62 | 29.5 |
| Five+ | 17 | 8.1 |

[a]One participant did not provide information regarding gender or ethnicity.
[b]Used as a proxy for social class, as the information given by participants on parents' occupation was sometimes incomplete or unclear.

**Table 2.** Self-reported use of cigarettes, alcohol and drugs for 210 participants

| | *n* | % |
|---|---|---|
| Lifetime use of cigarettes | 89 | 43.0 |
| Use of cigarettes in past month | 39 | 18.9 |
| Lifetime use of alcohol | 175 | 83.7 |
| Use of alcohol in past month | 130 | 61.9 |
| Lifetime use of cannabis | 16 | 7.6 |
| Use of cannabis in past month | 16 | 7.6 |
| Lifetime use of other illegal drugs[a]/glue | 32 | 15.5 |
| Use of other illegal drugs/glue in past month | 17 | 8.3 |

[a]The term 'other illegal drugs' refers to ecstasy and heroin.

## Elicitation of Images

As part of a larger study, participants were asked to complete a questionnaire on their knowledge and experience of alcohol, cigarettes and a range of illegal substances, their family background and a number of demographic and psychological variables (e.g. self-esteem). However, of relevance here are the data pertaining to the participants' views of cigarettes, alcohol and drugs. These data were collected using a word association technique adapted from the methodology described by Benthin et al. (1995) in order to allow the participants to generate their own images regarding the various substances. The following instructions were presented:

> *Often when we hear about certain things we have some kind of picture in our head. For example, if you were asked to think about `walking in the rain' you might think about three things: fresh air, exercise and good damp smells, or you might think about being wet, miserable and cold. Perhaps you would think of all of these, but everyone would probably have different ideas. For each of the following, we want you to write down the first three thoughts that come into your head when you think about each activity. Try to think of three thoughts, but do not worry if you can only think of one or two. It doesn't matter if your thoughts are good or bad - we only want to know what your first thoughts are.*

The participants were then asked to report their associations for each of the following behaviours: (1) drinking beer, lager or cider; (2) drinking alcopops; (3) smoking cigarettes; (4) smoking cannabis; (5) sniffing glue; and (6) taking ecstasy. In addition, 172 of the participants reported their associations with respect to (7) taking heroin and (8) drinking spirits. Commonly used `street' names and examples were provided for the substances where appropriate.

## Procedure

Questionnaires were distributed by the research team during a timetabled Personal and Social Education class which lasted between 50 and 60 minutes. Participants were assured of anonymity and where necessary, seating arrange- ments were altered in order to maximize confidentiality. Questionnaires were then handed out to all present in the classroom, though as participation was voluntary, not all pupils completed all sections of the questionnaire. The schoolteacher remained present throughout, but had no involvement in data collection. The research team dealt with any queries about the questionnaire.

### Content Analysis of Imagery Data

Content categories were not imposed on the data in line with any *a priori* theories, but were established by means of an inductive process informed by qualitative research methods such as those of grounded theory (Glaser & Strauss, 1967). However, in line with traditional approaches to content analysis (Krippendorff, 1980), the categories were defined as mutually exclusive and attention was paid to inter-rater reliability. This approach facilitated numerical comparison of the occurrence of independent, well-defined categories across sub-sets of the data, whilst enabling the data to be approached with a minimum of pre-conceptions regarding the themes present. Accordingly, the authors reviewed the images generated across all eight substances, establishing provisional lists of content categories that could be used to categorize every image. Further discussion of the provisional lists generated by the review process resulted in the production of a

final list of 24 categories (see Table 3) with one further category for miscellaneous images which did not fit into one of the 24 generated categories.

**Table 3.** Frequency of image categories

| Content category[a] | Number of images in category | Sample images |
|---|---|---|
| Non-specific negative associations | 479 | 'Stupid', 'silly', 'bad', 'weird', 'boring', 'crap', 'pathetic', 'nasty', 'daft', 'sad' |
| Non-specific danger/ risk | 394 | 'Harmful', 'unhealthy', 'bad for you', 'dangerous', 'wrecked lives', 'risky' |
| Death | 285 | 'Death', 'can kill you', 'suicide', 'Leah Betts' |
| Intoxication | 276 | 'Drunk', 'pissed', 'high', 'getting stoned', 'tripping' |
| Disgust | 263 | 'Stinks', 'nasty taste', 'disgusting', 'yuck', 'horrid', 'dirty', 'gross' |
| Immediate negative physiological change | 174 | 'Feeling sick', 'hangover', 'coughing', 'dizzy', 'dehydrates you' |
| Addiction | 125 | 'Alcoholics', 'addicted', 'hooked', 'wanting more' |
| Specific health problem | 119 | 'Heart disease', 'lung cancer', 'bad for lungs', 'brain damage' |
| Having a good time | 110 | 'Parties', 'fun', 'laughing', 'having a good time', 'happy' |
| Non-specific positive associations | 92 | 'Nice', 'exciting', 'not that bad', 'excellent', 'good', 'OK' |
| Intention to avoid | 82 | 'Never do it', 'no way', 'never', 'not my type' |
| People unlike self | 81 | 'Men', 'posh man', 'hippies', 'louts', 'dealers', 'ages 16–30' |
| Expense | 81 | 'Expensive', 'waste of money' |
| Impaired personal presentation | 74 | 'Bad breath', 'embarrassed', 'yellow teeth', 'spots', 'acting silly' |
| Illegality | 73 | 'Illegal', 'jail', 'police', 'against the law', 'get into trouble' |
| Youth related | 73 | 'Underage', 'too young', 'teenagers', 'younger people' |
| Positive sensory | 73 | 'Tastes nice', 'fizzy', 'sweet', 'fruity', 'nice smell' |
| Personal contact | 54 | 'Uncle', 'dad', 'mum', 'friends', 'me' |
| Concerns re peer standing | 41 | 'Looking good', 'cool', 'think they are hard', 'peer pressure' |
| Variable harm | 27 | 'A little is OK', 'dangerous if can't handle', 'OK…with adults' |
| Aggression | 17 | 'Shouting', 'fighting', 'violence', 'people are rough' |
| Problem solution | 10 | 'Carm [*sic*] you down', 'ease pain', 'relaxing', 'rid of your worries' |
| Fear | 10 | 'Nervous', 'scary', 'scared' |
| Religious prohibition | 8 | 'Against my religion', 'against my Islamic faith' |

[a] In addition, 550 images were coded miscellaneous (e.g. alcohol, drug, pint).

The data were then coded according to these categories, once by one of the authors and again by a research assistant who was blind to the first coder's classifications. Agreement between the first and

second coder was found to range between 81% and 85.4%, depending on the particular substance. Where there was disagreement regarding the most appropriate code, the image was allocated a final code following discussion by two or more of the research team. In order to facilitate analyses, three additional super-ordinate categories were developed, namely `positive', `negative' and `neutral'. Each of the 24 primary categories was then assigned to one of the super-ordinate categories by each of the principle investigators independently. There was 100% agreement regarding the appropriate allocation of image categories to the super-ordinate categories.

## Findings

**General types of Images across all substance categories**

A total of 3571 images was generated by the participants, as not all of them provided three images for each substance. Of these, 3021 (84.6%) were classified into one of the 24 image categories identified through the content analysis. The dominance of negative imagery was of particular note. Fifteen of the 24 categories generated, accounting for 2265 (63.4%) of the reported images, were negative in their content, including the three most common categories (see Table 3 above). A significant number of these negative images conveyed a general notion of disapproval or risk and seemed otherwise vague and non-specific in content (e.g. `bad for you', `unhealthy', `pathetic', `stupid') and were therefore classified as Non-specific Negative Associations or Non-specific Danger/Risk. Where specific difficulties were identified as a negative outcome of substance use, these ranged from very immediate unpleasant physiological effects such as `dizziness' or a `hangover' to longer-term consequences including chronic health problems (e.g. `cancer'), addiction, expense, embarrassment, legal difficulties and even death. The most frequent of these specific outcomes was `death'. Positive imagery was much less frequent and showed less diversity, being found in only 285 (8%) of the images elicited and necessitating only four content categories (Having a Good Time, Non-specific Positive Associations, Positive Sensory and Problem Solution; see Table 3).

The most frequently used positive category 'Having a Good Time' was ranked only ninth in terms of frequency. This category comprised images that were concerned with either positive emotional states or social facilitation (e.g. `parties', `fun', `happy').

**Patterns of imagery associated with each substance**

For the six substance groups presented to all participants (i.e. (1) beer, lager and cider; (2) alcopops; (3) cigarettes; (4) cannabis; (5) glue; and (6) ecstasy), the greatest number of images was generated for `beer, lager and cider' and `cigarettes'. This is not surprising given the higher rate of use of these substances among the participants. The images generated for all substances will be discussed under three broad headings, namely (1) cigarettes; (2) alcohol; and (3) drugs (i.e. cannabis, ecstasy and heroin) and glue.

**Cigarettes**

Inspection of Table 4 (next page) reveals that three-quarters (74.9%) of the images for this substance were negative. More specific negative images were primarily of two types (see Table 5 below). First, various health problems (see Specific Health Problems) were often mentioned (16.6% of cigarette images), for example `lung cancer', `heart disease', `gum problems' and `heart attack', as was death (7%). This contrasted markedly with the general absence in the data set as a whole of specific references to health risks associated with substance use. Second, there was a relatively high percentage of `disgust' images (14%) and this theme was also reflected in the concerns about `bad breath' and `yellow teeth' which were classed as Impaired Personal Presentation (6.8%). Only 12 of the 530 images spontaneously generated about smoking cigarettes (see Table 4 next page) could be classified as being positive (e.g. `parties'; `relaxing'; `having fun'; `carms [sic] you down if you are angry').

**Table 4.** Overall percentages (*n*) of images for each substance (super-ordinate categories)

| Image | Beer, lager and cider | Alcopops | Spirits | Cigarettes | Cannabis | Glue | Ecstasy | Heroin |
|---|---|---|---|---|---|---|---|---|
| Negative[a] | 40.4 (217) | 36.5 (170) | 49.9 (180) | 74.9 (397) | 76.4 (344) | 79.3 (344) | 76.3 (333) | 78.4 (280) |
| Positive[b] | 13.6 (73) | 25.4 (119) | 10.1 (36) | 2.3 (12) | 4.7 (21) | 1.4 (6) | 3.9 (17) | 0.3 (1) |
| Neutral[c] | 22.9 (123) | 21.7 (101) | 20.0 (72) | 7.5 (40) | 7.7 (35) | 10.0 (43) | 8.3 (36) | 6.0 (21) |
| Miscellaneous[d] | 23.1 (123) | 16.4 (77) | 20.0 (72) | 15.3 (81) | 11.2 (51) | 9.3 (41) | 11.5 (50) | 15.3 (55) |
| Total number of images | 536 | 467 | 360 | 530 | 451 | 434 | 436 | 357 |

[a]'Negative images' consisted of the following image categories: non-specific negative associations; non-specific danger/risk; death; disgust; immediate negative physiological change; addiction; specific health problems; intention to avoid; people unlike self; expense; impaired personal presentation; illegality; aggression; fear; religious prohibition.
[b]'Positive images' consisted of the following image categories: having a good time; non-specific positive associations; positive sensory; problem solution.
[c]'Neutral images' consisted of the following image categories: personal contact; intoxication; concerns regarding peer standing; variable harm; youth related.
[d]The 'Miscellaneous' category consisted of all images that could not be classified into either positive, negative or neutral image categories.

**Table 5.** Percentage (*n*) of images for each substance which fall into each content category

| Image | Beer, lager and cider | Alcopops | Spirits | Cigarettes | Cannabis | Glue | Ecstasy | Heroin |
|---|---|---|---|---|---|---|---|---|
| *(1) Negative* | | | | | | | | |
| Non-specific negative associations | 5.8(31) | 11.3 (52) | 5.9 (22) | 8.7 (46) | 17.5 (79) | 23.3 (101) | 18.3 (80) | 19.0 (68) |
| Non-specific danger/ risk | 5.6 (30) | 7.3 (34) | 3.9 (14) | 10.8 (57) | 16.9 (75) | 18.2 (79) | 14.0 (61) | 12.3 (44) |
| Death | 1.7 (9) | 0.6 (3) | 1.4 (5) | 7.0 (37) | 9.8 (44) | 9.4 (41) | 21.8 (95) | 14.3 (51) |
| Disgust | 8.4 (46) | 3.4 (16) | 8.9 (32) | 14.0 (74) | 6.9 (31) | 8.3 (36) | 2.5 (11) | 4.8 (17) |
| Immediate negative physiological change | 7.1 (38) | 4.1 (19) | 11.7 (42) | 2.1 (11) | 2.4 (11) | 5.5 (24) | 3.4 (15) | 3.9 (14) |
| Addiction | 2.4 (13) | 1.5 (7) | 6.4 (23) | 1.9 (10) | 5.3 (24) | 4.1 (18) | 1.6 (7) | 6.4 (23) |
| Specific health problem | 0.4 (2) | 0.2 (1) | 0.8 (3) | 16.6 (88) | 0.9 (4) | 1.2 (5) | 2.5 (11) | 1.4 (5) |
| Intention to avoid | 0.6 (3) | 1.7 (8) | 0.3 (1) | 1.5 (8) | 3.3 (15) | 3.7 (16) | 4.4 (19) | 3.4 (12) |
| People unlike self | 2.0 (11) | 0.6 (3) | 5.3 (19) | 0.9 (5) | 4.0 (18) | 1.8 (8) | 0.9 (4) | 3.6 (13) |
| Expense | 1.7 (9) | 2.6 (12) | 2.2 (8) | 4.2 (23) | 2.0 (9) | 0.5 (2) | 1.8 (8) | 2.8 (10) |
| Impaired personal presentation | 2.6 (14) | 0.6 (3) | 2.0 (7) | 6.8 (36) | 0.2 (1) | 1.6 (7) | 0.2 (1) | 1.4 (5) |
| Illegality | 0.2 (1) | 0.9 (4) | – | 0.2 (1) | 6.2 (28) | 1.2 (5) | 3.9 (17) | 4.8 (17) |
| Aggression | 1.1 (6) | 1.3 (6) | 0.8 (3) | 0.2 (1) | 0.2 (1) | – | – | – |
| Fear | 0.4 (2) | – | 0.3 (1) | – | 0.4 (2) | 0.5 (2) | 0.5 (2) | 0.3 (1) |
| Religious prohibition | 0.4 (2) | 0.4 (2) | – | – | 0.4 (2) | – | 0.5 (2) | – |
| *(2) Positive* | | | | | | | | |
| Having a good time | 6.9 (37) | 6.6 (31) | 1.7 (6) | 0.8 (4) | 2.7 (12) | 0.7 (3) | 3.7 (16) | 0.3 (1) |
| Non-specific positive associations | 4.3 (23) | 7.7 (36) | 5.3 (19) | 0.9 (5) | 1.8 (8) | 0.2 (1) | – | – |
| Positive sensory | 2.4 (13) | 11.1 (52) | 1.7 (6) | – | – | 0.5 (2) | – | – |
| Problem solution | – | – | – | 1.4 (5) | 0.6 (3) | 0.2 (1) | – | 0.2 (1) |
| *(3) Neutral* | | | | | | | | |
| Personal contact | 1.5 (8) | 2.1 (10) | 2.5 (9) | 3.4 (18) | 0.7 (3) | 0.5 (2) | 0.7 (3) | 0.3 (1) |
| Intoxication | 18.4 (99) | 8.6 (40) | 11.7 (42) | 0.2 (1) | 5.5 (25) | 6.2 (27) | 6.0 (26) | 4.5 (16) |
| Concerns regarding peer standing | 1.1 (6) | 1.7 (8) | – | 2.6 (14) | 1.1 (5) | 0.5 (2) | 0.9 (4) | 0.6 (2) |
| Variable harm | 1.3 (7) | 0.9 (4) | 3.9 (14) | – | 0.2 (1) | – | 0.2 (1) | – |
| Youth related | 0.6 (3) | 8.4 (39) | 2.0 (7) | 1.3 (7) | 0.2 (1) | 2.8 (12) | 0.5 (2) | 0.6 (2) |
| Total number of images (all categories) | 536 | 467 | 360 | 530 | 451 | 434 | 436 | 357 |

## Alcohol

With respect to alcohol, there was a clear ambivalence shown across the pool of responses, particularly with regard to alcopops (see Table 4 above). More specifically, although 36.5% of the alcopops-related images were classed as negative, more than 25% indicated a positive view, with 11.1% referring to a concrete and pleasurable experience of taste or smell (Positive Sensory) rather than more abstract information about the substance (see Table 5 above). What appeared to be appealing about alcopops was that they were `fizzy', `fruity' and had a `nice taste'. A comparison between the images generated for beer, lager and cider and those for alcopops is particularly interesting. These drinks are usually of a similar alcoholic strength. However, alcopops were less likely to be associated with immediate unpleasant physiological changes (e.g. `feeling sick'), impaired self- presentation (e.g. `behaving embarrassingly') and intoxication (see Table 5). Alcopops were also less than half as likely as beer, lager and cider to evoke a disgust response. In addition, comments by several participants, recorded as 'Youth Related', noted that alcopops were clearly associated with `teenagers' or `aimed at kids'. In marked contrast, the few youth-related comments regarding the other forms of alcohol all indicated the reverse, that is, that these particular drinks were not perceived as being appropriate for young people. Beer, and particularly spirits, were more often associated with 'People Unlike Self' than alcopops, for example `older men'. Additionally, the various types of alcohol were not generally associated with particular health issues, with only six of the 1363 alcohol-related images being coded as a 'Specific Health Problem' (see Table 5).

## Drugs and Glue

There was a distinct bias towards negative imagery for cannabis, glue, ecstasy and heroin, which were all characterized by words and phrases such as `stupid', `pathetic', `bad', `no point', `dangerous'. The percentage of negative images ranged from 76.3% for ecstasy to 79.3% for glue, while the percentage of positive images ranged from 0.3% for heroin to 4.7% for cannabis (see Table

4). However, although the majority of participants clearly viewed these substances as unacceptable, the data suggested a poorly defined idea of distaste or potential harm (see Table 5). For example, on average, 15.4% of the images for drugs and glue indicated that these substances were `risky', `bad for you' or `unhealthy' ('Nonspecific Danger/Risk'), while only 1.5% of the images focused on specific health problems, including `liver failure', `heart attacks' and `dehydration'. Only one out of the total 357 heroin images generated referred directly to risk of HIV infection, and another one by implication (`sharing needles'). A considerable number of participants made an immediate association between these substances and death, particularly with regard to ecstasy and heroin (see Table 5). Indeed, for ecstasy, a full 21.8% of the images generated were clearly associated with death (e.g. `death', `kills you', `can kill', `Leah Betts'). The juxtaposition of this with the mere 5.9% of ecstasy images which referred either to specific health problems (e.g. `heart attacks') or immediate negative physiological change (e.g. `dehydration') suggests that these images of death were not generally associated with any clear reasoning regarding the health consequences of ecstasy use. In fact, many of the ecstasy images were classed as Non-specific Danger/Risk as they implied a vague and uncertain health-related danger (e.g. `bad for you'). The few other notable differences across glue and the three drugs were a reflection of the responses of only a small number of participants, but were as follows (see Table 5): (i) heroin and glue, unlike cannabis and ecstasy, attracted a handful of references to 'Impaired Personal Presentation'. For example, `spots' were mentioned in relation to glue, and `sniffing', `blood-shot eyes' and `looking ill' in relation to heroin; (ii) cannabis and ecstasy were more often associated with Having a Good Time than were glue and heroin; (iii) images for glue were more likely to be classified as 'Youth Related' than were those for ecstasy, heroin or cannabis; (iv) cannabis was the only one of the four substances to attract several 'Non-specific Positive Associations' (e.g. `excellent', `good for you'); and finally (v) ecstasy was less likely to be seen as being addictive than the other drug categories examined (1.6% of images for this substance compared to 5.3%, 4.1% and 6.4% for cannabis, glue and heroin, respectively).

## Comparison of images across substance categories

The various types of alcohol were generally viewed less negatively and more positively than the other substances (see Table 4). This was particularly true for alcopops which, along with the beer category, elicited far more references to `parties', `happy', `fun', `enjoying yourself' and similar sentiments (Having a Good Time) than any other substance (see Table 5). Data on the level of substance use in our sample indicate that beer or alcopops had been tried by the majority of the participants, unlike glue and the drugs, which may explain why there was a richer description of possible positive effects for these substances. However, the same finding was not true for cigarettes, which were much less likely to elicit a positive image despite having been tried by almost half of the participants. There was some similarity between the perception of cigarette smoking and perceptions of using glue and drugs. For all these substances, the majority of images were negative, with fewer than 10% being neutral and fewer than 5% positive (see Table 4). However, drugs and glue were more likely than cigarettes to be characterized by vague and non-specific negative associations (e.g. `stupid', `pathetic', `bad for you', `dangerous'), whereas the undesirable outcomes for cigarettes were more often clearly stated (see Table 5). In particular, as discussed above, there were far more references to specific health problems and disgust for cigarettes.

However, it is interesting to note that death was much less likely to be associated with cigarettes (7% of cigarette images) than ecstasy (21.8%) or heroin (14.3%) and was also rarely mentioned in connection with any type of alcohol. These impressions do not accord with the statistics available on deaths associated with use of different substances which suggest that cigarette- and alcohol-related deaths grossly outnumber those associated with any other psychoactive drug (e.g. Office for National Statistics, 1998). It appears likely that for the participants, the salience of extreme negative outcomes such as death was influenced by the perceived deviance of the substance rather than by knowledge per se. This may well also explain the finding that

cannabis was more frequently associated with addiction (5.3% of cannabis images) than were either cigarettes (1.9%) or alcopops (1.5%).

## Comment

It is clear from the present study that education initiatives regarding the use of cigarettes, drugs and alcohol should not approach even the youngest adolescents as `empty vessels' to be filled with the knowledge, attitudes and opinions of the providers of health education. This is evidenced by the substantial number of images generated by the participants in this study before any formal intervention was carried out. Rather, as suggested by Burgess (1997), young people are active participants in the educational encounter and may be expected to interpret the messages given within the context of their existing frameworks regarding psychoactive substances.

Although rates of substance use in the mid and later teens appear to have been rising in the UK over the past decade (e.g. Measham et al., 1998; Roberts et al., 1995; Wright & Pearl, 1995), the participants in the present study were still more likely to produce negative associations when given the names of a range of psychoactive substances, despite having reported comparatively high levels of contact with several of the substances. Overall, 63.4% of the images generated by our participants were classified as negative while only 8% were classified as positive. Our data would appear to call into question Parker & Measham's (1994, p. 5) claim that *`. . . a process of normalisation is underway in respect of adolescent recreational drug use'*, certainly for younger adolescents.

A caveat concerns the fact that our data were collected in a classroom context, where one might expect negative images of the substances under investigation to be promoted. However, steps were taken to reduce demand characteristics by ensuring that teachers were not directly involved in the collection of data. Moreover, our data were collected prior to the introduction of formal drugs education and anonymity was assured for all participants. These points, together with the fact that the views expressed by the young people in our study were similar to those reported by other

researchers working with similar age groups (see Rogers & McCarthy, 1999) suggest that it would be unwise to view our data simply as a product of the research context.

Although the associations made were predominantly negative, there was little evidence of a generic substance attitude. It has been demonstrated elsewhere that drug-related attitudes among young people are differentiated according to type of substance (Power et al., 1996; Wibberley, 1997) and for the present participants there were several marked differences in the way they conceptualized the various substances. First, it would appear that messages regarding specific health consequences in relation to cigarette use had been assimilated in a way that was not the case for the other substances examined, including alcohol. This is similar to the picture gained by Benthin et al. (1995) in the north-western USA. Of the 1363 images generated for the alcohol group of substances in the present study, only six (0.4%) were linked to a specific health problem, compared to 88 (16.6%) for cigarettes. However, it is important not to overstate the awareness of cigarette related problems. Despite the fact that a relatively high proportion of the images spontaneously generated by our participants for cigarettes referred to specific health problems, it is not necessarily the case that the remaining participants would have demonstrated such an awareness of these problems had they been asked more directly about the implications of smoking cigarettes. Morgan et al. (1999) found that, when specifically asked, only 55% of their 16-year-old British sample thought that smoking more than 20 cigarettes a day was harmful.

The picture for glue and drugs was similar to that for alcohol. Although the participants showed some awareness of negative health associations with the use of alcohol, drugs and glue, these tended to be highly general in nature (e.g. `bad for you' and `unhealthy'). While such low levels of spontaneous reporting do not necessarily mean that the adolescents were not aware of specific health problems, these problems clearly did not form a particularly salient image and therefore would not be part of the young person's immediate response to alcohol, drugs or glue.

Second, alcopops had quite different associations from drinks of similar strength in the beer category and also from spirits. Besides being seen more positively, there seemed to be an assumption that alcopops would be less potent than beer, with fewer negative physiological effects. Indeed, alcopops were associated with youth in a way that did not occur for the other types of alcohol. A recent study (Roberts et al., 1999) indicated that this may be particularly true for girls, who were found to drink alcopops more frequently than any other alcoholic drink.

Differences in imagery between glue, cannabis, ecstasy and heroin were less marked. Cannabis and ecstasy elicited slightly more positive imagery and there was some variation across the four substances with regard to the salience of addiction, the relevance of the substance to young people, unwanted side effects and fatalities. However, there was less differentiation between `hard' and `soft' drugs than has been found with older adolescents (Power et al., 1996; Wibberley, 1997) and there was a general trend across these four substances for similar, rather bland negative imagery that lacked concrete references. The monochrome nature of the `mad', `bad for you', `dangerous' associations, contrasted with the technicolour of the cigarette imagery - `lung cancer', `yellow teeth', `coughing', `black lung', `bad breath', and also some of the imagery for alcohol - `hangovers', `stinks', `dizzy', `fizzy'. This difference in the vividness of the imagery may be related to differences in the level of contact with the various substances.

The data from the present study illustrate the variety of negative attitudes possible, some of which amounted to flimsy, rather vague impressions. It is unlikely that such apparently unsubstantiated evaluations, which seem to stem from a rather thin knowledge base, would predict future abstinence among the participants. Many of the images generated were quite different to the outcome expectancies which cognitively focused attitude research has demonstrated, to an extent, to predict substance use (e.g. Ajzen & Fishbein, 1982; Brown et al., 1987; Christiansen et al., 1989). Benthin et al.'s (1995) data suggest that general evaluative associations, as well as more specific outcome expectancies, are related to use of cigarettes, alcohol and marijuana. While it might be

useful to target both these cognitive and affective components of attitudes in any drug prevention programme, approaches such as the Health Belief Model (Becker, 1974) and the Theory of Reasoned Action (Azjen & Fishbein, 1980) suggest that it may be particularly useful to focus on outcome expectancies. These theories propose that health-related behaviours such as refusal of, or engagement in, substance use are to a significant extent determined by a more exact assessment of potential risks and benefits.

It is questionable whether such vague imagery as that frequently associated with glue and illegal drugs in the present study would prove to be a sufficiently rigorous resource to inform choices about using or not using such substances in the future. For example, images of heroin as mad, bad and non-specifically dangerous would seem to be a poor basis for non-use if the young person enters a social group where heroin use begins to serve a positive social function. Prevention programmes are unlikely to achieve their aim of reducing the acceptability of substances to young people if they amount to little more than reinforcing impressions of substances as potentially but vaguely dangerous.

This would seem to contradict reviews which have questioned the value of information-based prevention programmes (e.g. Botvin & Botvin, 1992; Burgess, 1997; Dorn & Murji, 1992). However, although criticisms of knowledge-based strategies are clearly valid in relation to past programmes which were designed primarily to induce fear, it would seem reasonable to suggest that a reasoned consideration of credible risks alongside a range of additional strategies to alter behaviour (e.g. peer discussion groups) is likely to achieve some success in altering young people's attitudes and behaviour (see Tobler, 1992 for a review). It has been demonstrated that prevention programmes might profitably aim for changes in a number of areas relating to knowledge, attitudes, refusal skills, social competence and self-esteem (Tobler, 1986, 1992). However, data from the present study indicate that targeting knowledge and attitudes may be more important for some substances than others. More specifically, with respect to cigarettes, knowledge of the health risks

involved with smoking was reasonably apparent and participants did not appear to need much encouragement to find cigarettes aversive. Instead, it may be useful for prevention programmes to focus on refusal skills or other areas of social competence as indicated by Flay's (1985) review of psychosocial approaches. As far as alcohol is concerned, there seems to be little need to devote energy to reducing the acceptability of spirits for most of the participants. However, the apparent underestimate of potential negative consequences of excessive use of alcopops indicated the need for improved knowledge in this area. With respect to drugs and glue, our participants' knowledge appeared to need bolstering in that differentiation between these substances was limited with regard to risks, which seemed to be rather poorly understood. Of concern was the strong, but largely unexplained, association with death, particularly for ecstasy. Such an extreme view of a substance is likely to be undermined when the young person comes into contact with users, leaving the credibility of other health-risk messages in relation to ecstasy uncertain (Burgess, 1997).

Finally, it is worth reflecting on the types of imagery which were not recorded by the young people in our study, or which were only offered occasionally. There were no references to homelessness, poverty, crime, cognitive impairment, other mental health problems or disturbed relationships, all of which have been demonstrated empirically to be associated with higher levels of use of several of the substances investigated in the study (see Jarvis & Parker, 1989; Newcomb & Bentler, 1988; Parker et al., 1988). Clearly, these are not associations that readily came to mind for the present participants. They also tended not to equate substance use with 'Problem Solution'. Only 10 images in total fitted this category (e.g. `carm [sic] you down', `ease pain'), an observation which sits uneasily with lay discourses of adult substance use and also contrasts with the imagery provided by Benthin et al.'s (1995) US participants where relaxation featured relatively prominently in relation to smoking cigarettes and marijuana. Also counter-intuitive was the relatively infrequent occurrence of images that related to 'Concerns Regarding Peer Standing'. This association was made for only 1.1% of the total images, for example `pressure'; `pushed into it'; `to be with my mates'; `my friends think it's cool'. However, this was not as common as might be expected, given that peer

group identity has frequently been suggested to be a key factor in adolescents' use of psychoactive substances (e.g. Botvin & Botvin, 1992), although simplistic explanations of substance use based on `peer pressure' have been questioned elsewhere (Coggans & McKellar, 1994; May, 1993).

The present study has not only generated useful information about the views held by a relatively representative group of young UK adolescents, but has also demonstrated the feasibility of collecting information about the impressions held by relatively large numbers of participants. Assessment of attitudes to drug-taking in large-scale surveys and of changes in attitudes over the course of a drugs prevention intervention has usually been limited by the use of scales which assess agreement with pre-given general statements about substance use (e.g. Botvin et al., 1990; Epstein et al., 1995; Hammersley et al., 1997). The methodology employed in the present study offers an alternative means of assessment whereby information about both affective responses and outcome expectancies is collected which is not constrained by *a priori* expectations. In this way, it is possible to provide a snapshot of young people's evolving ideas, even where these are changing in a direction that has not been predicted.

## Acknowledgements

The authors would like to acknowledge the valuable contributions of Elaine Sheehan and Julian Hill to the management and collection of data and extend their thanks to the teachers and students who participated in the study.

## References


Adelekan, M.L., Gowers, S.G. & Singh, D. (1994). Substance use among secondary school pupils in Blackburn Borough. *Drugs: education, prevention and policy, 1*, 111-20.

Ajzen, I. & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behaviour.* Englewood Cliffs, NJ: Prentice-Hall.

Barnard, M., Forsyth, A. & McKeganey, N. (1996). Levels of drug use among a sample of Scottish schoolchildren. *Drugs: education, prevention and policy, 3*, 81-9.

Becker, M.H. (1974). The health belief model and personal health behaviour. *Health Education onographs, 2*, 324-508.

Benthin, A., Slovic, P., Moran, P. Severson, H., Mertz, C.K. & Gerrard, M. (1995). Adolescent health-threatening and health-enhancing behaviours: a study of word association and imagery. *Journal of Adolescent Health, 17*, 143-52.

Botvin, G.J., Baker, E., Dusenbury, L., Tortu, S. & Botvin, E.M. (1990). Preventing adolescent drug abuse through a multi-modal cognitive behavioural approach: results of a three-year study. *Journal of Consulting and Clinical Psychology*, 58, 437-46.

Botvin, G.J. & Botvin, E.M. (1992). Adolescent tobacco, alcohol and drug abuse: prevention strategies, empirical findings and assessment issues*. Developmental and Behavioural Pediatrics*, 13, 290-301.

Brown, S.A., Christiansen, B.A. & Goldman, M.S. (1987). The alcohol expectancy questionnaire: an instrument for the assessment of adolescent and adult alcohol expectancies. *Journal of Studies on Alcohol*, 48, 483-91.

Burgess, R. (1997). Deconstructing drug prevention: towards an alternative purpose, *Drugs: education, prevention and policy*, 4, pp. 271-83.

Christiansen, B.A., Roehling, P.V., Smith, G.T. & Goldman, M.S. (1989). Using alcohol expectancies to predict adolescent drinking behaviour after one year. *Journal of Consulting and Clinical Psychology*, 57, 93-9.

Coggans, N. & McKellar, S. (1994). Drug use among peers: peer pressure or peer preference? *Drugs: education, prevention and policy*, 1, 15-26.

Cooke, C., MacDonald, S. & Jones, I.G. (1997). Alcohol, tobacco and other drug use amongst secondary school children in Fife, Scotland. *Drugs: education, prevention and policy*, 4, 243-53.

Dorn, N. & Murji, K. (1992). Drug prevention: a review of the English language literature. *ISDD Research Monograph 5*. London: Institute for the Study of Drug Dependence.

Epstein, J.A., Botvin, G.J., Diaz, T. & Toth, V. (1995). Social and personal factors in marijuana use and intentions to use drugs among inner city minority youth. *Developmental and Behavioural Pediatrics*, 16, 14-20.

Flay, B.R. (1985). Psychosocial approaches to smoking prevention: a review of findings. *Health Psychology*, 4, 449-88.

Fossey, E. (1993). Young children and alcohol: a theory of attitude development. *Alcohol and Alcoholism*, 28, 485-98.

Foxcroft, B.R., Lowe, G. & May, C. (1994). Adolescent alcohol use and family influences: Attributive statements by teenage drinkers*. Drugs: education, prevention and policy*, 1, 63-9.

Glaser, B.G. & Strauss, A.L. (1967*). The Discovery of Grounded Theory: strategies for qualitative research*. Chicago, IL: Aldine.

Glassner, B. & Loughlin, J. (1987*). Drugs in Adolescent Worlds: burnouts to straights.* Basingstoke: Macmillan Press.

Hammersley, R., Ditton, J. & Main, D. (1997). Drug use and sources of drug information in a 12-16-year-old school sample. *Drugs: education, prevention and policy*, 4, 231-41.

Jahoda, G. & Crammond, J. (1972). *Children and Alcohol: a developmental study in Glasgow*, Vol. 1. London: HMSO.

Jarvis, G. & Parker, H. (1989). Young heroin users and crime - how do the new users finance their habits? *British Journal of Criminology*, 29, 175-85.

Krippendorf, K. (1980). *Content Analysis: an introduction to its methodology.* London: Sage.

May, C. (1993). Resistance to peer group pressure: an inadequate basis for alcohol education. *Health Education Research: theory and practice*, 8, 159-65.

Measham, F., Parker, H. & Aldridge, J. (1998). The teenage transition: from adolescent recreational drug use to the young adult dance culture in Britain in the mid-1990s. *Journal of Drug Issues*, 28, 9-32.

Miller, P.M. & Plant, M. (1996). Drinking, smoking and illicit drug use among 15 and 16 year olds in the United Kingdom. *British Medical Journal*, 313, 394-7.

Morgan, M., Hibell, B., Andersson, B., Bjarnason, T., Kokkevi, A. & Narusk, A. (1999). The ESPAD study: implications for prevention. *Drugs: education*, *prevention and policy*, 6, 243-56.

Newcomb, M.D. & Bentler, P.M. (1988). *Consequences of Adolescent Drug Use.* Beverly Hills, CA: Sage.

Parker, H. & Measham, F. (1994). Pick `n' mix: changing patterns of illicit drug use amongst 1990s adolescents. *Drugs: education, prevention and policy*, 1, 5-13.

Parker, H., Bakx, K. & Newcombe, R. (1988). *Living With Heroin: the impact of a drugs `epidemic' on an English community*. Milton Keynes: Open University Press.

Parker, H., Measham, F. & Aldridge, J. (1995). Drug futures: changing patterns of drug use amongst English youth. *ISDD Research Monograph 7*. London: Institute for the Study of Drug Dependence.

Plant, M.A. (1975). *Drug Takers in an English Town*. London: Tavistock.

Power, R., Power, T. & Gibson, N. (1996). Attitudes and experience of drug use amongst a group of London teenagers. *Drugs: education, prevention and policy*, 3, 71-80.

Roberts, C., Blakey, V. & Tudor-Smith, C. (1999). The impact of `alcopops' on regular drinking by young people in Wales. *Drugs: education, prevention and policy*, 6, 7-15.

Roberts, C., Moore, L., Blakey, V., Playle, R., Tudor-Smith, C. (1995). Drug use among 15-16 year olds in Wales, 1990-94. *Drugs: education, prevention and policy*, 2, 305-16.

Rogers, A. & McCarthy, M. (1999). Drugs and drugs education in the inner city: the views of 12-year olds and their parents. *Drugs: education, prevention and policy*, 6, 51-9.

Tobler, N.S. (1986). Meta-analysis of 143 adolescent drug prevention programs: quantitative outcome results of program participants compared to a control or comparison group. *Journal of Drug Issues*, 16, 537-67.

Tobler, N.S. (1992). Drug prevention can work: research findings. *Journal of Addictive Diseases*, 11, 1-28.

Wibberley, C. (1997). Young people's feelings about drugs. *Drugs: education, prevention and policy*, 4, 65-78.

Wright, J.D. & Pear, L. (1995). Knowledge and experience of young people regarding drug misuse, 1969-94. *British Medical Journal*, 310, 20-4.