
Alcohol imagery and branding, and age classification of films popular in the UK

Ailsa Lyons,^{1*} Ann McNeill,¹ Ian Gilmore² and John Britton¹

¹UK Centre for Tobacco Control Studies, Division of Epidemiology and Public Health, The University of Nottingham, Nottingham, NG5 1PB, UK and ²Royal Liverpool University Hospital, Liverpool, UK

*Corresponding author. Division of Epidemiology and Public Health, Clinical Sciences Building, City Hospital, Hucknall Road, Nottingham, NG5 1PB, UK. E-mail: mcxal4@nottingham.ac.uk

Accepted 14 July 2011

Background Exposure to alcohol products in feature films is a risk factor for use of alcohol by young people. This study was designed to document the extent to which alcohol imagery and brand appearances occur in popular UK films, and in relation to British Board of Film Classification (BBFC) age ratings intended to protect children and young people from harmful imagery.

Methods Alcohol appearances (classified as ‘alcohol use, inferred alcohol use, other alcohol reference and alcohol brand appearances’) were measured using 5-min interval coding of 300 films, comprising the 15 highest grossing films at the UK Box Office each year over a period of 20 years from 1989 to 2008.

Results At least one alcohol appearance occurred in 86% of films, at least one episode of alcohol branding in 35% and nearly a quarter (23%) of all intervals analysed contained at least one appearance of alcohol. The occurrence of ‘alcohol use and branded alcohol appearances’ was particularly high in 1989, but the frequency of these and all other appearance categories changed little in subsequent years. Most films containing alcohol appearances, including 90% of those including ‘alcohol brand appearances’, were rated as suitable for viewing by children and young people. The most frequently shown brands were American beers: Budweiser, Miller and Coors. Alcohol appearances were similarly frequent in films originating from the UK, as from the USA.

Conclusion Alcohol imagery is extremely common in all films popular in the UK, irrespective of BBFC age classification. Given the relationship between exposure to alcohol imagery in films and use of alcohol by young people, we suggest that alcohol imagery should be afforded greater consideration in determining the suitability of films for viewing by children and young people.

Keywords Alcohol imagery, films, British Board of Film Classification, young people, policy

Introduction

Alcohol consumption is a major and increasing public health problem in the UK and throughout the developed world. In England, alcohol use currently causes around 860 000 hospital admissions and 6500 deaths each year,^{1,2} costing the NHS an estimated £2.7 billion¹ and wider society about £20 billion/year.³ Alcohol consumption by young people is an increasing contributor to this disease burden, with 63% of 15-year-olds in England in 2008 having been drunk at least once in the previous month, 33% intentionally so.⁴ Consumption among those who had drunk alcohol in the past week is rising quickly, from 10.4 U in 2000⁵ to 14.6 U in 2008.⁴ Drinking alcohol in adolescence predicts alcohol dependence in adulthood.⁶

A growing evidence base indicates that alcohol advertising and promotion encourage alcohol use among young people. Two systematic reviews of prospective cohort studies found an association between exposure to alcohol advertising or promotional activity in a variety of media, and initiation and the amount of alcohol consumption in young people.^{7,8} Since these reviews were published, two further cohort studies have reported similar findings,^{9,10} and Sargent *et al.*¹¹ in a prospective cohort of 2400 never-drinking adolescents found that exposure to alcohol use in films was an independent risk factor for the onset of alcohol use. Given the huge burden of underage drinking in the UK, the occurrence of alcohol imagery in films watched by children and young people is therefore a potential public health hazard.

Studies of films popular in other countries have demonstrated that alcohol use and branding are common,^{12–14} even in children's animated films.^{15,16} However, the extent to which alcohol imagery occurs in films popular in the UK, and the extent to which the British Board of Film Classification (BBFC) classifies these films as suitable for viewing by UK children and young people, has not been documented.

This study has, therefore, measured the occurrence of alcohol imagery, and identifiable alcohol brand appearances, in relation to BBFC classification, in the 15 most popular films shown in UK cinemas in each year (Supplementary Table 1, available as supplementary data at IJE online) from 1989 to 2008.

Methods

We used UK Cinema Box Office (UKCBO) earnings data for each year over the 20 years from 1989 to 2008 to identify the 15 most popular films in the UK for each of those years for inclusion in the present study. The UKCBO information was collected separately from other markets for the first time in 1989; prior to this box office information specifically relating to the UK was not collected. Background information [title, UKCBO earnings, year of release, run

Box 1 BBFC age-rated restriction categories for films viewed in UK cinema

Category	Description
Universal (U)	Suitable for all audiences
Parent Guidance (PG)	General viewing, but some scenes may be unsuitable for young children
12/12A ^a	(12) Suitable for ≥12 years (12A) >12 years must be accompanied by an adult
15	Suitable for ≥15 years
18	Suitable for ≥18 years

^a12- and 12A-rated films have been amalgamated since the 12A film rating replaced the 12 rating for cinema film viewing in 2002.

time, age rating of film (as rated by the BBFC¹⁷), (Box 1) and country of origin] was collected for each film. We used methods previously described in a study of tobacco use in films¹⁸ to code and quantify alcohol appearances, including branded appearances, in each film using 5-min interval coding. By this method, each 5-min period of film was coded as positive for the following categories of alcohol appearances if at least one such incident occurred during the 5-min period:

- (i) Alcohol use: actual consumption of an alcoholic drink onscreen by any character, and coded according to type of drink as beer, wine/champagne, spirit/liqueur, cocktails, mixture of drink types (such as in a group or crowd scene) or type unknown.
- (ii) Inferred alcohol use: the visible appearance but not consumption of an alcoholic drink, a verbal reference to alcohol use such as ordering a drink, behaviour such as drunkenness, or any other appearance implying alcohol consumption.
- (iii) Other alcohol references: the presence of alcohol products (such as beer pumps or bottles or cans) without actual or implied consumption, or a verbal discussion or comment unrelated to actual current use.
- (iv) Brand appearances: the presence of clear and unambiguous alcohol branding, whether on a product consumed or otherwise visible in the scene, or in advertisements, logos or other recognizable branded material.

Interval recording is a semi-quantitative method in which multiple occurrences of the same alcohol appearance category in the same 5-min interval are not counted; however, an occurrence that crosses a transition from one 5-min interval to the next is recorded as two separate events. Where multiple brand appearances occurred in the same 5-min interval, we

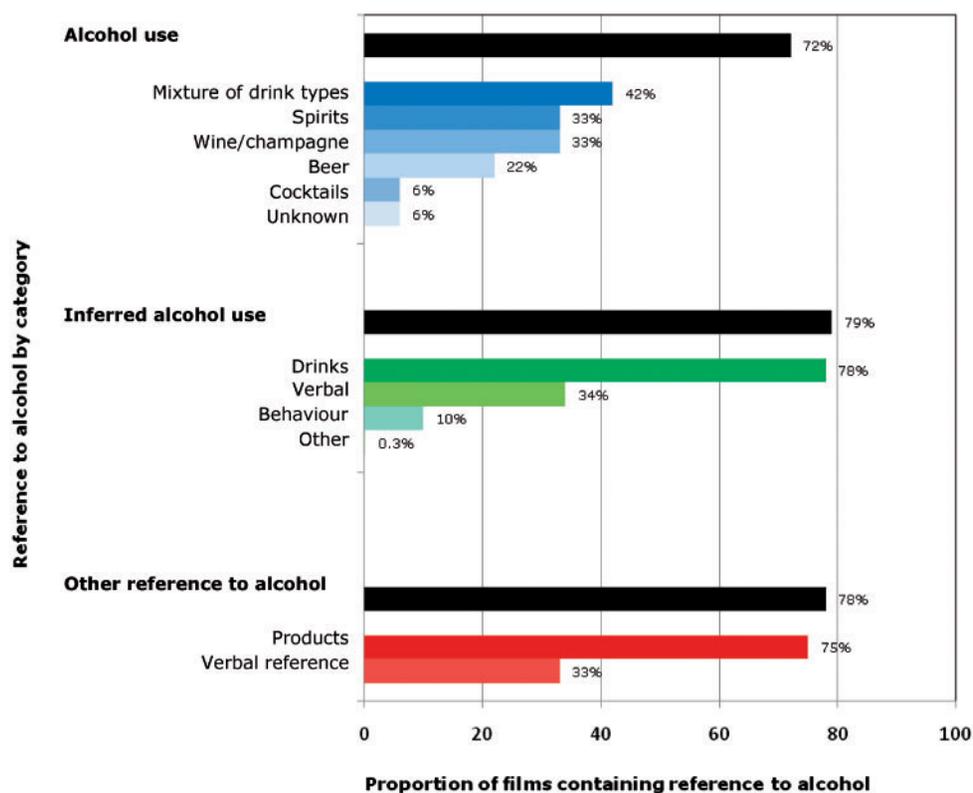


Figure 1 Percentage of films containing reference to alcohol by category: ($n = 300$)

recorded the total number and identities of the brands involved.

Data were entered into a Microsoft Office Excel database and analysed using Excel and STATA 10 (Statacorp LP, TX, USA). Alcohol and brand appearances were expressed as occurrences per hour for each film, calculated by dividing the sum of the intervals containing alcohol appearances, or the total number of brand appearances, by the length of the film in hours. Mean alcohol appearance rates by year were calculated as the sum of occurrences per hour per film divided by the total number of films each year. Comparisons were then made between films, according to BBFC category, year of release, country of origin and other characteristics using descriptive statistics, the chi-squared statistic and simple linear regression analysis in STATA.

Using the chi-squared statistic, brand appearances were compared between films originating in the UK and in the USA by comparing the ratios of films (from the UK and USA) containing branding, including collaborative US and UK works in both categories. The proportion of films including brand appearances was also compared with other BBFC categories. The films containing branding and the actual brands that appeared were then examined to determine which brands appeared most frequently (in terms of frequency of 5-min intervals), which films contained

the most brand appearances and which brands appeared in the most films.

Results

The 300 films totalled 583 h of film time, with a mean duration of 117 min [standard deviation (SD) 25 min] and a range from 78 to 224 min. The majority of films were in the PG (27%), 12/12A (26%) and 15 (26%) BBFC film rating categories; 15% were classified as U and 6% as 18. Most films (281, 94%) were produced by or in partnership with US companies, and 59 (20%) by or in partnership with UK companies. Only one film had no UK or US production involvement.

At least one alcohol appearance occurred in 258 (86%) of the 300 films, with 'alcohol use' occurring in 215 (72%), 'inferred alcohol use' in 237 (79%) and 'other reference to alcohol' in 233 (78%). Of the 6994 5-min intervals analysed, 1601 (23%) contained one or more alcohol appearances: 'alcohol use' in 835 (12%), 'inferred use' in 1218 (17%) and 'other alcohol reference' in 1020 (15%). Details of these appearances are shown in Figure 1. The average hourly count of all categories of alcohol appearance in films declined slightly over the 20-year study period (Figure 2), by an average of 0.259 [95% confidence interval (CI)

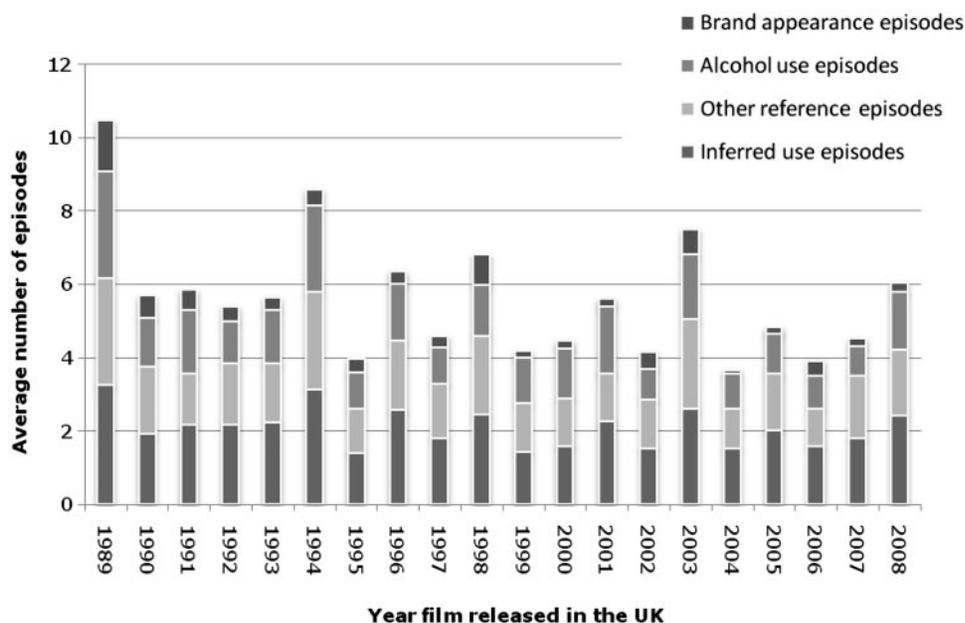


Figure 2 The average number of alcohol appearances and brand appearances per hour of film viewed in the UK each year between 1989 and 2008 ($n = 300$)

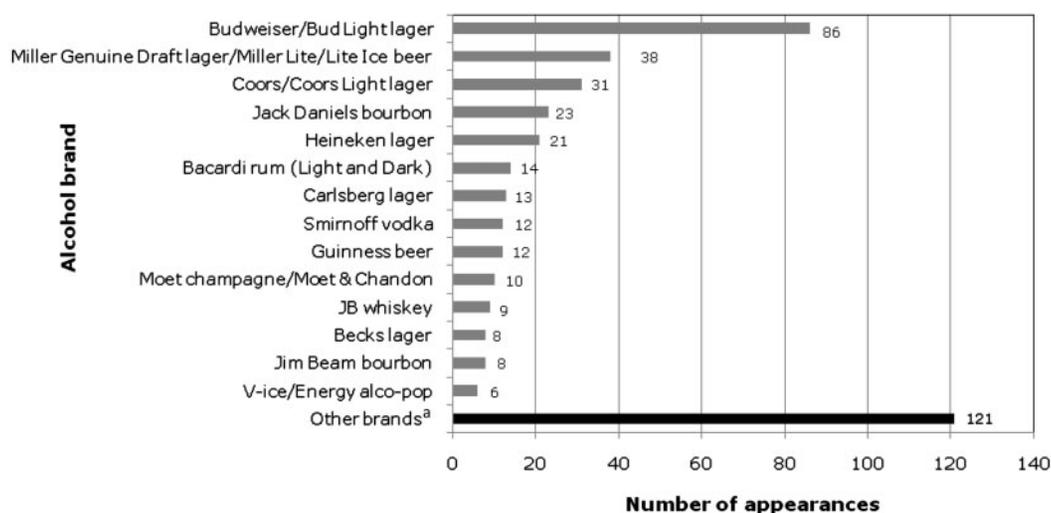


Figure 3 Branded episodes: ($n = 412$). ^aA further 55 brands appeared between one and five times each

0.005–0.465] per year for ‘branded alcohol appearances’ and 0.432 (95% CI 0.004–0.082) for ‘alcohol use’, though after exclusion of the particularly high levels of these appearances in the first year of the study (1989), there was no discernable trend.

‘Brand appearances’ occurred 412 times, in 248 5-min intervals (4% of total) in 104 (35%) films. Of the 69 brands that appeared (Figure 3), Budweiser (including Budweiser Light) was the most frequently observed (86 appearances), followed by Miller Genuine Draft (including Miller Lite/Lite Ice) (38 appearances) and Coors (including Coors Light)

(31 appearances). Budweiser and Miller accounted for 30% of all appearances of alcohol branding. Two brands (Duff beer, *The Simpsons Movie*, 2007 and Penn Pavels beer, *The Truman Show*, 1998) were fictitious and one brand, (Kina Lillet, *Casino Royale*, 2006), a wine, has not been produced since 1985 but featured in the original text of the book by Ian Fleming.¹⁹ The film with the greatest intensity of specific brand appearances was *See No Evil, Hear No Evil* (1989, comedy, BBFC 15, USA) in which Budweiser appeared 13 times in bar scenes, branded neon signs and bottles of beer. The greatest number of separate brands

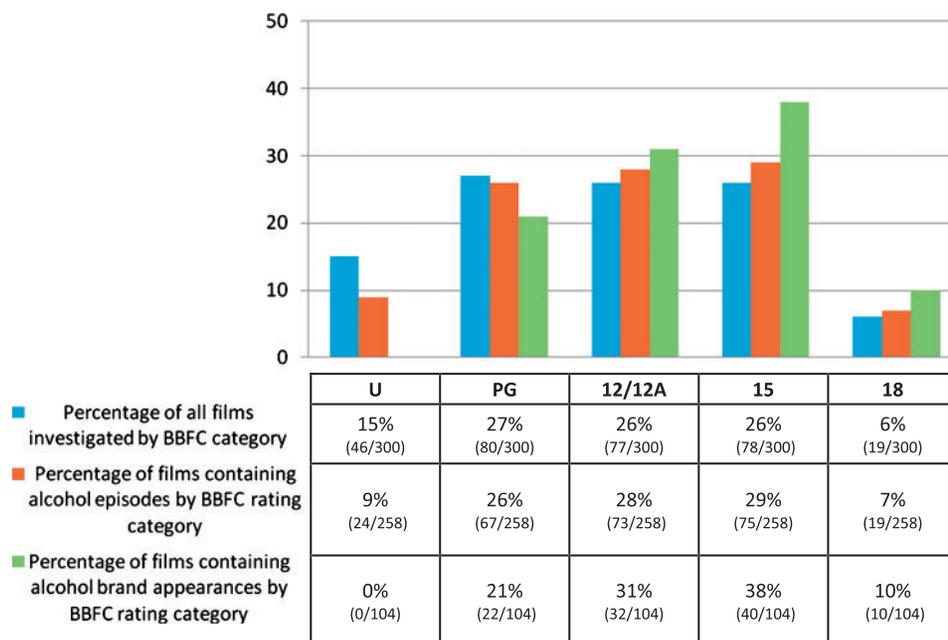


Figure 4 All films ($n=300$), percentage of films containing any episodes of alcohol by BBFC category ($n=258$) and percentage of films containing episodes of brand appearances by BBFC category ($n=104$). (a) PG (Parent Guidance): ($n=80$); (b) 12/12A: ($n=77$); (c) 15: ($n=78$); (d) 18: ($n=19$)

occurred in *Cocktail* (1989, comedy, BBFC 15, USA), with 13 brands appearing a total of 39 times. Although wine or champagne appeared in 33% of films, these appearances accounted for <6% of all branded appearances.

The majority of alcohol appearances occurred in films deemed by the BBFC as suitable for children and young people to watch. At least one alcohol appearance occurred in 52% (24/46) of U-rated films, 84% (67/80) of PG, 95% (73/77) of 12/12A, 96% (75/78) of 15 and in all 18-rated films, 100% (19/19). Although there were no 'brand appearances' in any U-rated films, 90% of all 'brand appearances' occurred in films categorized as suitable for viewing by people <18 years of age (Figure 4) and were particularly common in BBFC 12/12A and 15 categories when compared with other age rating categories ($\chi^2=49.07$, $P<0.05$).

The mean number of 'brand appearances' per hour of film per year in BBFC age classifications PG to 18 (254 films) is shown in Figure 5, which demonstrates that, with the exception of 18-rated films, in which there was a high frequency of brand appearances in the early years of the study period, there was little change in frequency over the period of study in all other film classifications. The proportions of films with branding in the USA and UK were similar (0.35 and 0.37, respectively).

Discussion

This study demonstrates that the occurrence of general alcohol product imagery and specific brand

appearances, particularly of American beers, is extremely common in the most popular films in the UK. Our findings also show that, after a particularly high level of occurrence in 1989, there has been no appreciable decline in the frequency of alcohol appearances over recent years. They also demonstrate that alcohol appearances were particularly common in films certified as suitable for viewing by young people. Previous work has shown that product placement in the media is an effective means of marketing to children and young people,²⁰ and that exposure to high risk imagery and behaviour in the media, including television and films, rock music, music videos and advertising, shape children's value systems and behaviours.²¹ Several putative mechanisms for the relationship between alcohol imagery in films and drinking behaviour have been proposed, including social cognitive theory²² and meditational pathways involving attitudes, expectancies and prototypes have been identified.^{23,24} Our finding of the high levels of exposure of children and young people to alcohol imagery in UK films, thus identifies an important and potentially avoidable influence on current and future alcohol consumption.

Coding alcohol appearances in film is time consuming, and to make the workload of the study more manageable, while also obtaining data for the full 20 years for which UK-specific box office data are available, we opted to analyse the 15 most popular films in the UK each year (Supplementary Table 1, available as supplementary data at IJE online) and used interval, rather than continuous recording. We chose the 15 most popular films because these

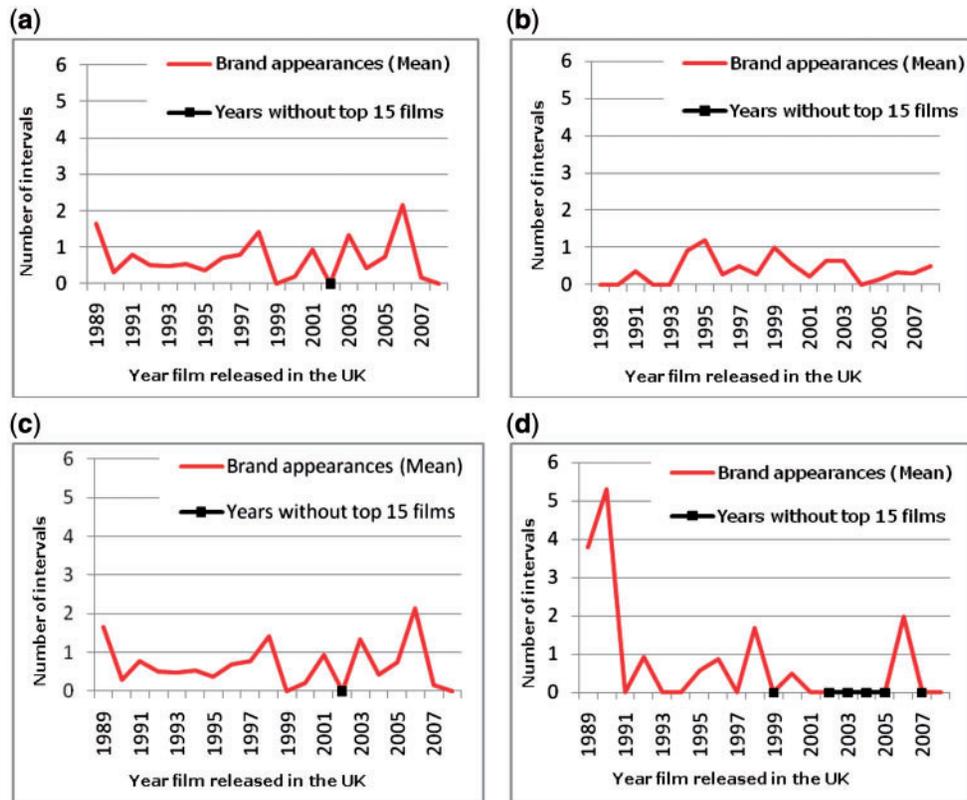


Figure 5 The mean number of episodes per hour of film per year containing alcohol brand appearances by BBFC age restriction classification PG-18: ($n = 254$)

typically account for about half of total UK Cinema Box Office earnings each year, the remainder accounting for increasingly small proportions of earnings and hence audiences. Interval recording is a semi-quantitative approach that is widely used in coding appearances of tobacco and alcohol in films,^{25–29} and has the advantage of being a sensitive measure for detecting relative changes in levels of behaviour.³⁰ A disadvantage of the method is that coding intervals do not correspond to scenes or other themes in a film³¹ and will underestimate appearances where these are multiple within the coding interval. However, comparison of the amount of imagery in films requires use of a standard coding unit that remains constant from one film to the next, and that is applicable, irrespective of film and scene duration.²⁸ Interval recording is also appropriate for our study aim of describing the trends over time and relative frequencies of alcohol appearances in different film categories, rather than the specific contextual details of each appearance within the narratives of the films. We have previously used this method of interval recording successfully to document appearances and brand appearances of tobacco imagery in films.¹⁸ Given the quantity of data, contextual information about how alcohol was portrayed in the films was not captured and this would be a valuable area for

future research. Finally, we were unable to comment on trends before 1989 because UK Box Office data have only been collected since 1989.

Studies from other countries have found similarly high frequencies of alcohol appearances in films.^{11,13,14,22,28} In a study from the USA, Roberts *et al.*²⁸ found that alcohol appeared in 93% of the 200 most popular films for video rental in 1996 and 1997, and in 2007, Hanewinkel *et al.*¹³ found alcohol appearances in 88% of the 398 internationally distributed films that were successful in the German Box Office between 1994 and 2002. Dal Cin *et al.*¹⁴ showed that the brands most commonly depicted in all age rating categories were Miller and Budweiser. Other studies from the USA have found that one or more lead characters consumed alcohol onscreen in 79% of the 110 top-grossing films from 1985 to 1995,²⁷ and that even animated films suitable for general viewing included alcohol imagery in 50% of cases.¹⁵ However, the occurrence of alcohol imagery in contemporary popular UK films, or the ages of children and young people for which they are classified as suitable for viewing, has not previously been documented.

We found alcohol imagery to be extremely common in all categories of age classification of popular UK films. Since alcohol consumption is a common activity

in everyday life, and bars, pubs and other alcohol retailers are an integral part of the urban environment in most Western countries, alcohol imagery in films is arguably an inevitable consequence of realistic depictions of life in these environments. The same can be argued for brand appearances, since bars, retailers and other alcohol outlets typically promote brand names in signage and décor. If so, then the most prominent brands in films should be those most popular in real life, and would account for the prominence of American beer brands in the films in our study, since Budweiser alone holds ~25% of the global market share.³² However, since branded or other alcohol imagery promotes alcohol use, there is a case for their inclusion in films to be a strong factor in age classification. UK films are age-classified by the BBFC, which serves to protect children and young people from hazardous or disturbing imagery and provide guidance to parents on the suitability of films for unsupervised viewing. The BBFC classification guidelines do not, however, appear to consider the potential behavioural influences of alcohol imagery in films in the classification process, stating only that 'where smoking, alcohol abuse or substance misuse feature to a significant extent in works which appeal to children, this will normally be indicated in the Consumer Advice and/or Extended classification information' (p. 12).¹⁷

Placement of branded, as opposed to generic appearances in film could be considered to be promotional advertising and therefore, covered by the voluntary British Code of Advertising, Sales, Promotion and Direct Marketing³³ which states that 'marketing communications should not be directed at people under 18 through the selection of media, style of presentation, content or context in which they appear. No medium should be used to advertise alcoholic drinks if more than 25% of its audience is under 18 years of age' (p. 34).³³ Information on whether the brand appearances we have identified were paid, rather than incidental, is not publicly available, though according to Shin and Kim,³⁴ Sony Pictures Entertainment signed a six-figure promotional partnership with the Heineken Brewing Company to place their products in *Casino Royale* (BBFC, 12).³⁵ Reference has been made elsewhere to the US Federal Trade Commission's acknowledgement that some alcohol companies have refused requests to place their brands in films where it would be shown to be consumed by those under the legal age, although their alcohol products have appeared in films aimed at, and rated for viewing by those under the legal age.¹⁴

The occurrence of branded alcohol products in films contravenes the voluntary codes of practice adopted by several alcoholic drink manufacturers. Anheuser-Busch, which produces the Budweiser brands, state in their advertising policy that they are committed to responsible advertising and 'advertise and market our products to adults 21 years of age and older'.³⁶

MillerCoors (Coors and Miller brands) claim that they do not want underage consumers,³⁷ and that their marketing standards are 'above and beyond simple legal compliance',³⁸ and their 'advertising is intended to reach legal aged adults' [and] 'that at least 70 per cent of any programming audience is 21 and over' (p. 10).³⁹ Neither company makes reference, however, to product placement (the appearance of their products in films), whether or not paid for,^{40,41} or displacement, which is the use of fictional or obscured brands to prevent exposure to clearly visible branding.⁴²⁻⁴⁴ Both Anheuser-Busch and MillerCoors make reference to strict adherence to the Beer Institute Advertising and Marketing Code,⁴⁵ which also advocates that beer advertisements should be placed only in media where at least 70% of the audience is expected to be ≥ 21 years. The appearances of these companies' products in films thus appear to be in breach of their own promotional policies.

In 2004, the UK government acknowledged the public health importance of reducing demand for alcohol among children and young people⁴⁶ and published strategies to prevent further increases in alcohol-related harms,³ including a television advertising code, intended to prevent targeting young people and glamorization of irresponsible behaviours.⁴⁷ However, neither this report, nor the 2007 update⁴⁸ addressed the inclusion of general or brand-specific alcohol imagery in films. The current UK government has also prioritized an alcohol policy centred on pricing and licensing,⁴⁹ and has recently committed to new approaches to promoting more socially responsible drinking.^{50,51} Our findings indicate that measures to limit and protect children and young people from exposure to generic and brand-specific alcohol imagery in films should be an important part of this policy.

Supplementary data

Supplementary data are available at *IJE* online.

Funding

This work was funded by a PhD studentship from the UK Centre for Tobacco Control Studies, which is a UKCRC Centre for Public Health Research Excellence jointly funded by the British Heart Foundation, Cancer Research UK, the Economic and Social Research Council, the Medical Research Council, and the Department of Health, under the auspices of the UK Clinical Research Collaboration.

Acknowledgements

We thank Sean Perkins at the UK Film Council Research and Statistics Unit for providing a list of UK's top grossing films in the years 1989-2008.

Conflict of interest: None declared.

KEY MESSAGES

- Exposure to alcohol brand appearances and other alcohol imagery in films and other media is a recognized risk factor for alcohol use by children and young people.
- However, alcohol imagery, including specific brand appearances, is extremely common in popular UK films, across all categories of age classification.
- Existing classification policy does not, therefore, appear to be protecting children and young people in the UK from potentially harmful alcohol imagery in films.

References

- The NHS Information Centre Lifestyle Statistics. Statistics on Alcohol: England, 2009. Report No.: ISBN 978-1-84636-303-0. Leeds: The Health and Social Care Information Centre, 2009.
- Royal College of Physicians. *Alcohol - Public Health Priorities*. <http://old.rcplondon.ac.uk/professional-Issues/Public-Health/Pages/Alcohol.aspx> (29 July 2011, date last accessed).
- Cabinet Office/Prime Minister's Strategy Unit. *Alcohol Harm Reduction Strategy For England*. London: The Cabinet Office, 2004. <http://www.newcastle-staffs.gov.uk/documents/community%20and%20living/community%20safety/caboffice%20alcoholhar%20pdf.pdf> (29 July 2011, date last accessed).
- Fuller E (ed). *Smoking, Drinking and Drug Use Among Young People in England in 2008*. Leeds: National Centre for Social Research, 2009. http://www.ic.nhs.uk/webfiles/publications/sdd08fullreport/SDD_08_%2809%29_%28Revised_Oct_09%29.pdf (5 July 2011, date last accessed).
- Boreham J, Shaw A. *Smoking, Drinking and Drug Use Among Young People in England in 2000*. London: National Statistics, 2001. <http://www.archive.official-documents.co.uk/document/doh/sddyp/survey.htm> (5 July 2011, date last accessed).
- Bonomo YA, Bowes G, Coffey C, Carlin JB, Patton GC. Teenage drinking and the onset of alcohol dependence: a cohort study over seven years. *Addiction* 2004;**99**:1520–28.
- Smith L, Foxcroft DR. The effects of alcohol advertising, marketing and portrayal on drinking behaviour in young people: systematic review of prospective cohort studies. *BMC Public Health* 2009;**9**(51).
- Anderson P, de Bruijn A, Angus K, Gordon R, Hastings G. Impact of alcohol advertising and media exposure on adolescent alcohol use: a systematic review of longitudinal studies. *Alcohol Alcoholism* 2009;**44**:229–43.
- Collins R, Ellickson PL, McCaffrey D, Hambarsoomians K. Early adolescent exposure to alcohol advertising and its relationship to underage drinking. *J Adolesc Health* 2007;**40**:527–34.
- Henriksen L, Feighery EC, Schleicher NC, Fortmann SP. Receptivity to alcohol marketing predicts initiation of alcohol use. *J Adolesc Health* 2008;**42**:28–35.
- Sargent J, Wills TA, Stoolmiller M, Gibson J, Gibbons FX. Alcohol use in motion pictures and its relation with early-onset teen drinking. *J Stud Alcohol Drugs* 2006;**67**:54–65.
- Aina O, Olorunshola DA. Alcohol and substance use portrayals in Nigerian video tapes: an analysis of 479 films and implications for public drug education. *Int Quart Commun Health Educ* 2007;**28**:63–71.
- Hanewinkel R, Tanski SE, Sargent JD. Exposure to alcohol use in motion pictures and teen drinking in Germany. *Int J Epidemiol* 2007;**36**:1068–77.
- Dal Cin S, Worth KA, Dalton MA, Sargent JD. Youth exposure to alcohol use and brand appearances in popular contemporary movies. *Addiction* 2008;**103**:1925–32.
- Goldstein A, Sobel RA, Newman GR. Tobacco and alcohol use in G-rated children's animated films. *JAMA* 1999;**281**:1131–36.
- Thompson K, Yokota F. Depiction of alcohol, tobacco and other substances in G-rated animated feature films. *Pediatrics* 2001;**107**:1369–74.
- BBFC. *British Board of Film Classification: The Guidelines*. London: British Board of Film Classifications, 2009. <http://www.bbfc.co.uk/classification/guidelines> (5 July 2011, date last accessed).
- Lyons A, McNeill A, Chen Y, Britton J. Tobacco and tobacco branding in films popular in the UK 1989–2008. *Thorax* 2010;**65**:417–22.
- Fleming I. *Casino Royale*. London: The Penguin Group, 2004.
- Auty S, Lewis C. Exploring children's choice: the reminder effect of product placement. *Psychol Market* 2004;**21**(9):699–716.
- Villani S. Impact of media on children and adolescents: a 10-year review of the research. *J Am Acad Child Adolesc Psychiatry* 2001;**40**:392–401.
- Stern SR. Messages from teens on the big screen; smoking, drinking, and drug use in teen-centered films. *J Health Commun* 2005;**10**:331–46.
- Dal Cin S, Worth KA, Gerrard M *et al*. Watching and drinking: expectancies, prototypes, and friends' alcohol use mediate the effect of exposure to alcohol use in movies on adolescent drinking. *J Health Psychol* 2009;**28**:473–83.
- Morgenstern M, Isensee B, Sargent JD, Hanewinkel R. Attitudes as mediators of the longitudinal association between alcohol advertising and youth drinking. *Arch Pediatr Adolesc Med* 2011;**165**:610–16.
- Hazan A, Lipton HL, Glantz SA. Popular films do not reflect current tobacco use. *Am J Public Health* 1994;**84**:998–1000.
- Stockwell T, Glantz SA. Tobacco use is increasing in popular films. *Tobacco Control* 1997;**6**:282–84.
- Everett S, Schnuth RL, Tribble JL. Tobacco and alcohol use in top-grossing American films. *J Commun Health* 1998;**23**:317–24.
- Roberts D, Henriksen L, Christenson P. *Substance Use in Popular Movies and Music*. Rockville, MD: Office of National Drug Control Policy and Department of Health and Human Services Substance Abuse and Mental Health Services Administration, 1999. <http://ncadi.samhsa.gov/>

- govstudy/mediastudy/new.aspx#_Toc447073472 (5 July 2011, date last accessed).
- ²⁹ Escamilla G, Cradock AL, Kawachi I. Women and smoking in Hollywood movies: a content analysis. *Am J Public Health* 2000;**90**:412–14.
- ³⁰ Harrop A, Daniels M. Methods of time sampling: a reappraisal of momentary time sampling and partial interval recording. *J Appl Behav Anal* 1986;**19**:73–77.
- ³¹ Dalton M, Tickle JJ, Sargent JD, Beach ML, Ahrens MB, Heatherton TF. The incidence and context of tobacco use in popular movies from 1988 to 1997. *Prev Med* 2002;**34**: 516–23.
- ³² Anheuser-Busch InBev. *Anheuser-Busch InBev Annual Report 2009*. http://www.ab-inbev.com/pdf/Financial_Report_2009.pdf (5 July 2011, date last accessed).
- ³³ The Committee of Advertising Practice (CAP). *British Code of Advertising, Sales, Promotion and Direct Marketing*. 2003. http://www.royalhigh.edin.sch.uk/departments/departments/cdt/ahgc_resources/Bcasp_11revised.pdf (5 July 2011, date last accessed).
- ³⁴ Shin D, Kim JK. Alcohol product placements and the third-person effect. *Television New Media* 2011; doi:10.1177/1527476410385477 [Epub 19 January 2011].
- ³⁵ Campbell M. *Casino Royale*. US/Czech Republic/US/Germany/Bahamas: Columbia Pictures/Eon Productions/Casino Royale Productions/Stillking Films/Casino Royale/Babelsberg Film/Government of the Commonwealth of the Bahamas, 2006.
- ³⁶ Anheuser-Busch. *Anheuser-Busch Corporate Social Responsibility: Advertising Policy*. <http://beerresponsible.com/advertising-policy.html> (5 July 2011, date last accessed).
- ³⁷ MillerCoors. *MillerCoors: Underage Drinking Prevention Programs*. <http://www.greatbeergreatresponsibility.com/AlcoholResponsibility/YouthAccessPrevention.aspx> (5 July 2011, date last accessed).
- ³⁸ MillerCoors. *MillerCoors: Responsible Marketing*. <http://www.greatbeergreatresponsibility.com/AlcoholResponsibility/ResponsibleMarketing.aspx> (5 July 2011, date last accessed).
- ³⁹ MillerCoors. *MillerCoors Sustainable Development Report, 2010*. <http://www.greatbeergreatresponsibility.com/Gbgr/sdr2010/index.html> (5 July 2011, date last accessed).
- ⁴⁰ DeLorme D, Reid LN, Zimmer MR. Moviegoers' experiences and interpretations of brands in films revisited. *J Advertising* 1999;**28**:71–95.
- ⁴¹ Cappel J. *The Future of Advertising*. New York, NY: McGraw-Hill – Advertising Age, 2003.
- ⁴² Martin B, McCracken CA. Consumption imagery in New Zealand music videos. *Asia Pacific J Market Logistics* 2001;**3**: 3–33.
- ⁴³ Palmer B. When product placement goes horribly, horribly wrong. *Fortune* 1998;**48**:43. http://money.cnn.com/magazines/fortune/fortune_archive/1998/12/21/252698/index.htm (5 July 2011, date last accessed).
- ⁴⁴ Santiago G. *Product Displacement, 2011*. <http://www.gladysantiago.com/projects.html> (5 July 2011, date last accessed).
- ⁴⁵ Beer Institute. *Advertising and Marketing Code*. Washington, DC: Beer Institute, 2006, pp. 1–8. <http://www.beerinstitute.org/beerInstitute/files/ccLibraryFiles/Filename/000000000384/2006ADCODE.pdf> (5 July 2011, date last accessed).
- ⁴⁶ Department of Health. *Choosing Health: Making Healthy Choices Easier*. London: Department of Health, 2004.
- ⁴⁷ Ofcom/VASA. *Young People and Alcohol Advertising: An investigation of Alcohol Advertising Following Changes to the Advertising Code, 2007*. http://www.asa.org.uk/Resource-Centre/~media/Files/ASA/Reports/Youngpeoplealcoholadvertising_20071116.ashx (5 July 2011, date last accessed).
- ⁴⁸ Department of Health/Department for Education and Skills and Culture Media and Sport. *Safe. Sensible. Social: The Next Steps in the National Alcohol Strategy*. London: HM Government, 2007. http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_075218 (5 July 2011, date last accessed).
- ⁴⁹ HM Government. *The Coalition: Our Programme for Government*. London: HM Government, 2010. http://www.direct.gov.uk/prod_consum_dg/groups/dg_digitalassets/@dg/@en/documents/digitalasset/dg_187876.pdf (5 July 2011, date last accessed).
- ⁵⁰ Department of Health. *Healthy Lives, Healthy People: Our Strategy for Public Health in England*. London: The Stationery Office, 2010. http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_122252.pdf (5 July 2011, date last accessed).
- ⁵¹ Department of Health. *Our Health and Wellbeing Today*. London: The Stationery Office, 2010. http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_122238.pdf (5 July 2011, date last accessed).