Reviewer’s report

Title: An association between seeing incidents of alcohol or drug use in films and young Scottish adults’ own alcohol or drug use: cross sectional study

Version: 1 Date: 27 September 2010

Reviewer: amanda atkinson

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The paper discusses findings of a study examining the association between young people’s exposure to substance use in films and reported use of alcohol, cannabis use and hard drug use. Much work has examined the influence of television and film images of alcohol and smoking on young people’s attitudes, beliefs and own use. This is an interesting piece of research and to the best of my knowledge it is the first study to include an examination of the relationship between exposure to film images of drugs and young people’s drug use. Research in this area tends to originate from the US and Europe, and the article therefore provides much needed research findings in the UK context. The authors draw comparisons between their findings with similar studies and discuss possible reasons for differences in findings across studies. Moreover, the authors recognise and discuss a number of the study’s limitations. There are however a number of areas for improvement in the article. In particular, it appears that the effect of viewing film images of alcohol and drugs is diminished when controlling for confounding factors. This should be the main argument of the paper.

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

1) In the introduction it is suggested that there has been a ‘dramatic rise’ in young people’s drinking. However, there is evidence to suggest a polarisation in drinking patterns with an increasing number of young people abstaining from alcohol use. The below report provides a thorough analysis of key trends drinking in the UK.


2) Given that the paper discusses the strong influence of advertising on young people’s alcohol use, literature around ‘product placement’ (i.e. alcohol brands) in films may be worth consideration.

3) Measuring media ‘effects’ is extremely difficult to establish and it must be considered that the media play a role in young people’s socialisation into alcohol use among multiple factors. Furthermore, causation cannot be established from a cross sectional study, as the authors state it may be that drinkers/ drug users seek out film representations of substance use. In addition, they may be more likely to remember seeing representations/films containing these images as they
mirror their own experiences/behaviours.

4) The paper states that media portrayals of alcohol and drug use are ‘unrealistic’. This is true in that many forms of media often provide a selective image of substance use. However, the authors should elaborate on the ways in which these portrayals can be defined as ‘unrealistic’.

5) Messages around substance use in films occur within the wider media context, in which an array of messages are transmitted over time (i.e. cumulative effect of media messages) and from a variety of sources (e.g. magazines, TV, radio, newsprint, new media). It is difficult to control for such confounding factors and thus difficult to determine the influence of one media source in isolation. Although the study itself controlled for multiple variables, the paper would benefit from emphasising these points.

6) In relation to the above issue, a consideration of the debate between ‘active’ and ‘passive’ audiences may be beneficial. The authors do touch on this when suggesting that ‘young adults may also have a more sophisticated and critical reading of media effects which makes them more resistant to their effects’. Literature to evidence this claim of the varying levels of media literacy between ages is required however.

7) The paper states that the sample of films included additional films that featured stars popular among young people. The paper would benefit from discussing why this is important. Although reference is made to a paper reporting the influence of movie star smoking on young people, theory on the role of significant others in young people’s socialisation into alcohol use may be of relevance here.

8) More detail should be added to explain the concept of ‘normalisation’ introduced in the discussion. There is extensive research literature in this area.

9) By not knowing the age at which drug and alcohol use was initiated, or the dates at which young people had viewed the films, there is no way of determining whether or not alcohol or drug use occurred prior to, or proceeded the viewing of substance use in films.

10) The research does not consider or measure the nature of substance use images in the films. In may be that such images are glamorised or normalised, with the potential to influence initiation. Yet at the same time depictions may be negative with the potential to prevent young people from initiation. Although quantifying images into categories of ‘positive’, ‘negative’ and ‘neutral’ images cannot fully grasp the wider context of the depiction in the same way as a qualitative content analysis does, the study would have benefitted from such categorisation.

11) It is confusing as to why images of empty alcoholic containers (e.g. beer bottles) were excluded when calculating the frequency of alcohol use in the
films. If bottles where clearly identifiable as containing alcohol (e.g. by brand logo) then this image is clearly alcohol-related. Moreover, empty bottles may be particularly important as they symbolise that alcohol has actually been drank. If it where the case that these images were excluded as it was unclear as to whether or not these containers would have initially contained alcohol (e.g. an empty ‘glass’ in a pub setting which may have actually contained a soft drink) then this should be stated in the manuscript.

12) If it is to be argued that it is the extent to which young people view alcohol-related images in films that influence’s their own use, then the more subtle images of alcohol such as bottles behind a bar or shop counter will also be influential. Background images such as branded bottles are essentially product placement or indirect advertising. Drawing on the evidence of the effects of alcohol advertising on young people’s alcohol use, such images may also be significant.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

13) The paper did not read well in parts and contained numerous typos that should be corrected.

14) In the opening paragraph the paper discusses concern around young people’s alcohol and drug use. However, the references to support this claim relate to alcohol use only. References to support concern around young people’s drug use are required.

15) Reference is also made to cannabis use becoming common among young people. The reference used to support this claim is based on Scottish research. Adding references to research from the UK and even European context would be beneficial if the paper is making general claims about young people’s cannabis use. Otherwise, the paper should clarify that this is referring to cannabis use in Scotland.

16) When referring to ‘media’, references should be included that relate to more than one type of media e.g films. (Introduction, paragraph 5, references 16-18).

17) The number of top 50 box office hits from the first half of 1999 included in the sample should be specified.

18) The paper reports that short interviews and physical measurements were conducted by nurses. It is unclear what questions this element of the study addressed and how they relate to the data explored in the paper.

19) Consistency is required in the terminology used throughout the manuscript. In the background section of the abstract, the article states that there has been greater interest in ‘images of certain behaviours in films’. The authors need to emphasise here that they are referring to substance use images. Similarly, in the
conclusions section of the abstract, the authors refer to ‘potentially damaging behaviours’ and ‘young people’s own behaviours’ in the discussion. Clarity is needed that these are referring to substance use. When discussing the significant associations, it should be clarified that this was the case for alcohol and cannabis use only.

20) Consistency is also required when discussing the studies measures. On a few occasions differing terms are used. e.g. ‘qualifications’ v ‘higher qualifications’. ‘Social class’ v ‘parental social class’. The term ‘family background’ is introduced in the results section, paragraph 6, it is unclear what measures this includes.

21) The authors discuss ‘other influences’ that could have had such a strong effect that the impact of exposure was ‘swamped’. Examples of such factors should be provided.

22) When discussing the findings, results should be consistently reported in the text. This is not done for all statements made. e.g. in the results section (paragraph 4) P values should be reported alongside statements as in the paragraph above.

23) When discussing the findings of the logistic regression, the text reads- ‘those in the highest quartiles of film alcohol exposure were more likely to be classed as both heavy and binge drinkers’. However, what has actually been measured is ‘film substance use exposure’ (i.e. also includes drug images). This point also relates to discussion around ‘film images of illicit drug use’ (i.e. also include alcohol images).

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

24) Using self reported alcohol use ‘in the last week’ as a proxy for young people’s alcohol use, and as a way of determining ‘binge drinking’ may not have been the best measure of use. Drinking behaviour in the previous week may not be representative of an individual’s usual pattern and frequency of drinking.

25) Results section, paragraph 3 is confusing as the P values displayed in the text do not appear to match the table (.018 is .054; 0.12 is .079; .000 is .001 and .033 is 0.59). The P values in the text are significant and the ones in the table are not.

26) In the cross tabulation the association between alcohol and drug use images and own use have been examined separately. It is unclear as to why alcohol and drug use images have been merged in the logistic regression.

27) Consistency in the terms used when discussing Chi Square results would be beneficial. The use of terms such as ‘linear trends’ and ‘stepwise increase’ should be clarified.

28) The authors also need to reach an overall conclusion with regards to the
strength of the association. The suggestion that there is ‘some association’ is too vague (discussion paragraph 2). In the final element of the LR model, associations appear not to be significant. This has implications as it suggests findings are not significant when controlling for confounding factors. The effect of viewing film images of alcohol and drugs is diminished when controlling for confounding factors, suggesting impact may be minimal. This should be the conclusion of the manuscript.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.