Health-related content in Australian television advertising

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Purpose: To explore the proportions of health-related content in non-program time on Australian television, and how this relates to channel, product category, program genre and whether advertisement or public service announcement.

Methodology: Australian prime time television was recorded across three commercial television stations in Sydney. Non-program content was coded according to the channel, program genre, length of content and product advertised. 44 hours of programming was recorded.

Findings: Significant differences were found in the percentage of health-related content between advertisements (22%) and public service announcements (67%). There was also a significant relationship between the product category and health-related content (χ^2 = 366.601, p=0.000), and health-related content and program genre (χ^2 = 20.594, p=0.024), particularly situation comedies (31%) and sport (15%). No difference was found in the percentage of health-related content between the channels.

Implications: Differences existing in the amount of non-program content across program genre suggests that viewers of programs with high rates of health-related content in advertising, may have higher exposure to product dependant health information.

Originality: Examines health information in a general sample without focus on particular demographics or health topics and investigates the role of program genre.

Introduction

The majority (99.7%) of Australian households have a television (Screen Australia, 2008), exposing them to television advertising, the aim of which is to inform about what to buy and where (Byrd-Bredbenner, 2003). Television advertising in Australia is controlled by the television code of practice (FreeTV, 2008). In Australia in 1997, non-program content made up approximately 20% of programming time (Hill and Radimer, 1997). Health-related messages may be displayed through both advertisements and public service announcements (PSAs), however PSAs make up only 1% of the total non-program time (Byrd-Bredbenner and Grasso, 2000a).

Obesity rates are increasing (World Health Organisation, 2006a). It has been classified as an independent health problem and a risk factor for other diseases (World Health Organisation, 2006b). The National Health Survey in Australia (Australian Bureau of Statistics, 2005) showed 49% of the adult population to be overweight, with 16% obese.

High rates of obesity in the UK, USA and New Zealand have sparked research into the amount of health-related advertising and its effects on health (Avery et al., 1997, Chapman et al., 2006, Eagle et al., 2004, Neville et al., 2005). While important, this research often fails to address what other health information is shown, or consider its impact on obesity rates. Television advertising could be the primary source of health information received by many people (Byrd-Bredbenner and Grasso, 1999). Byrd-Bredbenner & Grasso (1999) found that

prime time television programs frequently include health-related content which does not match the current dietary recommendations.

Research centred on television advertising and health in the past has focused primarily on food related advertising (Chapman et al., 2006, Henderson and Kelly, 2005, Outley and Taddese, 2006), or on advertising directed at children (Byrd-Bredbenner, 2002, Byrd-Bredbenner et al., 2003). Byrd-Bredbenner & Grasso (2000a) explored advertising and health-related messages, during prime time television in 1992 and 1998. This advertising was categorised by product or service being advertised, including health-related messages in categories such as automotive and financial services, as well as food and health advertising. The health information was defined to be "any image or linguistic reference to mental or physical illness, medical treatments, substance use, food/nutrition, or fitness" (Byrd-Bredbenner and Grasso, 2000a). While this research demonstrates a comprehensive analysis of health information, the breadth of the definition used may create less precise results, over-inflating the amount of health-related advertising. This contrasts with research done by Henderson and Kelly (2005) where advertising was classified as containing health-related content only if it was explicitly stated, as will be used in this study.

On both Australian and New Zealand television, 70% of the food advertisements were for unhealthy foods (Wilson et al., 2006). High levels of unhealthy or non-core food advertisements appear to be consistent across other advertising studies in the UK, USA and Australia (Byrd-Bredbenner, 2002, Chapman et al., 2006, Hill and Radimer, 1997, Story and Faulkner, 1990, Zuppa et al., 2003). The persistent and high volume of advertising of foods of

poor nutritional value mean that it is possible for viewers to see these advertisements multiple times while viewing television.

Research has been conducted focusing on advertising and children, both because a large proportion of obese children remain obese into adulthood, (Chapman et al., 2006) and because of their "vulnerability in terms of limited emotional and cognitive capacity to make fully rational decisions" (Eagle et al., 2004). More research is needed examining the effects and viewing of adults. While children may have some influence on their parents' spending in the case of unhealthy products, it is the parents who need to be convinced. Secondly, considering high costs associated with television advertising (Screen Australia, 2008), it is necessary for advertisements to be effective with all audiences. Overall health-related messages have been studied in relation to children's (2-11 year old viewers) programming during prime time up to 10pm (Byrd-Bredbenner et al., 2003). All health-related content was examined within these programs, not just food and nutritional messages. Data was coded according to basic program information, such as the program title, genre, and scene information, including length of scene and type of health content. In the current study this approach will be applied to health. Including information about the program type or genre may help to identify the targeted demographics of the advertising allow researchers to build a comprehensive profile of the current television advertising to which children and adults commonly exposed.

Television programs have also been analysed for health-related content and messages with Byrd-Bredbenner et al., (2003) founding 24% of program time contains health-related episodes. The most prevalent health-related content

was food or nutrition related, and this made up two-thirds of all health-related content episodes.

The aim of this study was to catalogue the presence of health-related non-program content (both advertisements and PSAs) currently on television and explore the extent to which the channel and the types of programs watched affects the amount of health-related non-program content viewed.

The hypotheses are:

1) The proportion of non-program content that has health-related content differs across the three major free to air television channels in Sydney.

2) The percentage of advertising that has health-related content differs across the product category being advertised.

3) The percentage of non-program content that has health-related content differs across the genre of the television program that is being screened.

4) There is a difference in the proportion of advertisements and public service announcements that have health-related content.

Methods

Television programming on the three major commercial free to air television stations in Sydney were recorded. Each channel (Channel 7, Channel 9 and Channel 10) was recorded during prime time, defined as 7pm to 10:30pm, across one week, Monday to Friday, as prime time is the time with the highest audience exposure.

Definitions of prime time differ depending on the location of the station, and the target audience with most falling in the range 6:00pm – 12:00am (YourTV, 2008), with a variety of subsections of this time used (Byrd-Bredbenner, 2003,Zuppa et al., 2003,Thompson et al., 2008, Kelly et al., 2007) and others starting at 7:00pm (Avery et al., 1997) or 8:00pm (Story and Faulkner, 1990, Byrd-Bredbenner and Grasso, 2000a). Seven pm to 10:30pm on weekdays was chosen because it encompassed times used previously for research into both children and adult television viewing, and is a subset of the standard definition of prime time in Australia.

One week of prime time television was recorded in September 2008, 5 recordings for each channel. The week was chosen as it was during school term time and when there were no major events, sporting or otherwise to disrupt viewing. The intended sample size was 52.5 hours (17.5 hours per channel), although due to technical problems with the recording, only 14 hours of one channel and 12.5 hours of another were recorded, giving 44 in total.

Each recording was coded on multiple dimensions, referring to the channel (Channel 7, 9, or 10 noted as channel 1, 2, or 3), the features of the advertisement and the program during which the advertisement screened. The advertisement features coded included categorising it as advertisement or PSA, length (in 15 second blocks), product type, and whether it was health-related. Product types used were based on previous research (Byrd-Bredbenner and Grasso, 2000a), with food and fast food categories split due to the high number of fast food advertisements reported in food and nutrition studies (Zuppa et al., 2003). The categories were: Automotive, Beauty, Electrical, Fast Food, Food,

Financial services, Health , Medications, Music/Entertainment, Office Supplies, Retail, Utilities and Other/Miscellaneous. An advertisement or PSA was coded as being health-related if there were explicit health claims. For food advertisements this might include claims about nutritional value, for cars about the safety record.

Television programs were coded into 9 genres: Crime/Forensic, Current Affairs, Drama/Series, Game Show, Movies, Reality Program, Situation Comedy, Sport, and Other. The categories used were based on those used by Byrd-Bredbenner (1999), expanded to include current popular genres such as Crime/Forensic and Reality program. An advertisement screening between 2 programs was categorised according to the previous program except in cases where there was specific reference to the following program.

Data was analysed using SPSS 17.0 for Windows. Frequency counts were conducted on all variables. Cross tabulations with applications of χ^2 to test for relationships between the variables, and z-test for comparison of column percentages.

Results

The number of health-related items of non-program content (NPC) and the amount of time of NPC spent on health-related content was the focus of this study. Overall, health-related NPCs made up 23.1% of the sample (Table 1). Advertisements and PSAs were only classified as having health-related content if there was an explicit health-related claim.
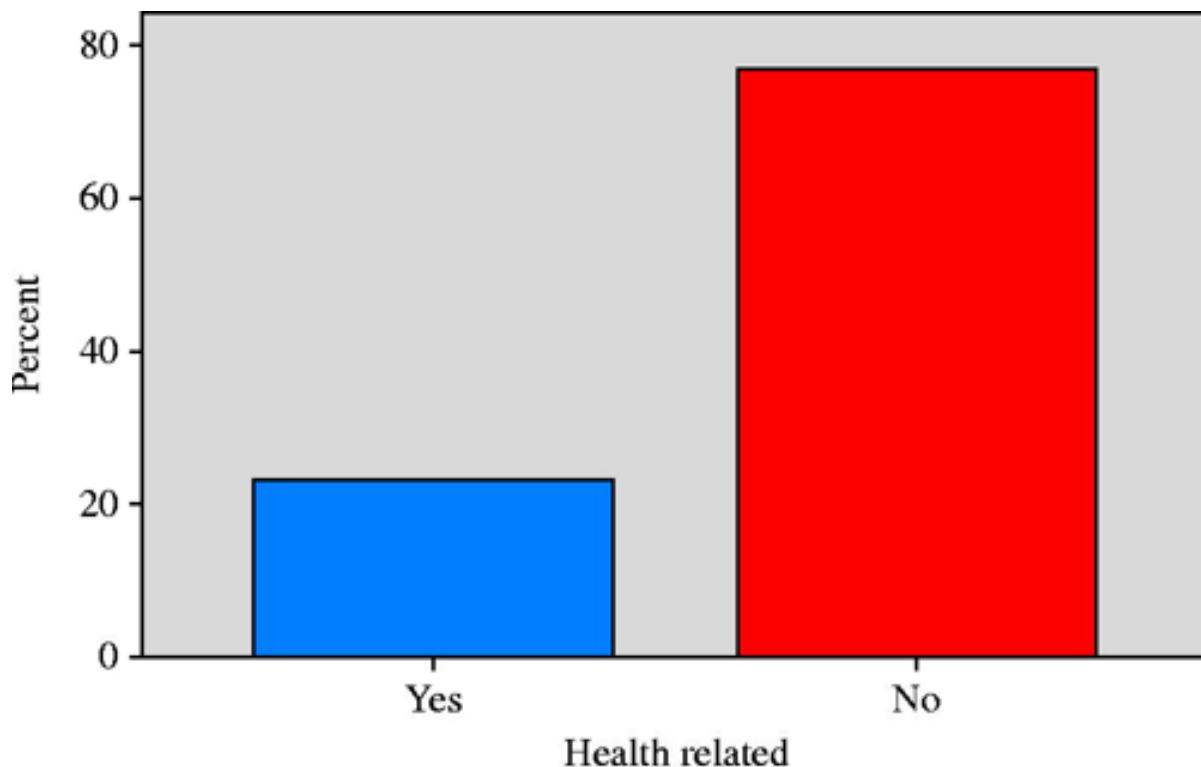
Figure 1. Percentage of NPCs that are health related

The first hypothesis was that there would be a difference in the amount of health-related NPC between the different channels. This hypothesis was not supported, with no differences found in the amount of health-related advertising on the three channels (χ^2=2.920, p=0.232).

The advertisements and PSAs were coded into 14 categories. Based on the amount of NPC time, the most common product category was Food with 15.6% of the total advertising time, increasing to 20% when combined with Fast Food advertisements.

A significant relationship between product category and health-related content was found (χ^2=366.6, p=0.000). The most pronounced was the category of

Medications which had a significantly higher percentage of advertising with health-related content (93%) than any other category included in the analysis. The categories with the highest health-related content were health (Medications, 93%; Health, 52%; Beauty, 40%) or nutrition related (Fast food, 37%; Food, 35%).

A significant relationship was found between program genre and health-related advertising content when looking at the number of advertisements (χ^2=20.594, p=0.024). Percentages of health-related programming ranged from 15% (Sport) to 31% (Situation comedy). This significance of this relationship is increased (χ^2=34.578, p=0.00) when the amount of NPC time is taken into account with Situation comedies showing significantly more health-related content than Drama series and Reality, and television programs overall.

Table 1: Cross-tabulation of Program genre by health-related content with data weighted to 15 second units of advertising

		Program genre									
		Crime/ Forensic	Current Affairs	Drama/ Series	Game Show	Movies	Reality Program	Situation comedy	Sport	Other	TOTAL
Health-related	Yes	121	16	83	27	32	130	81	26	45	561
		28%	28%	19%	28%	25%	22%	33%	16%	27%	24%
	No	312	41	358	69	98	466	168	138	121	1771
		72%	72%	81%	72%	75%	78%	67%	84%	73%	76%
	Total	433	57	441	96	130	596	249	164	166	2332
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Differences were also found in the amount of health-related content in advertisements and PSAs. There was found to be significantly more (level: α=0.05) health-related PSAs (67%) than advertisements (22%), supporting the hypothesis that there is a difference in the amount of health-related content between the different types of NPC. This relationship was further supported by a chi-square test (χ^2=50.345, p=0.000).

Discussion

The aim of this study was to determine whether there were differences in the amount of health-related non-program content (NPC) between the different television stations, different product categories or different types of program genre, as well as differences between the types of NPC. Differences in the amount of health-related NPC between three free-to-air commercial television stations in NSW were investigated, with no significant difference found in the percentages of NPC that was health-related. However, there was a difference in the number of PSAs between the channels, which suggests that watchers of channel 1 would be less likely to observe the independent health-related information shown in PSAs than watchers of other channels, therefore watchers of channel 1 may receive more of their health information from biased sources.

Previous research into differences between channels has primarily been conducted in the USA and has focused on channels that target particular demographics. Studies were found to show differences in the advertising shown, for example with African-American targeted content demonstrating higher levels of health damaging advertising material than general market

channels (Henderson and Kelly, 2005, Outley and Taddese, 2006). Wilson et al (2006) demonstrated higher levels of advertisements on a publically owned television channel, than a privately owned channel, with a higher proportion of these being food related, indicating that different channel management may affect the types of advertising shown.

In previous research in Australia, which examined food advertising on commercial free to air television, differences were found across the channels (Zuppa et al., 2003), however this is not supported by the current study. This suggests that perhaps differences found between channels in the 2003 study by Zuppa et al. may have been due to other factors not examined, such as differences in programs, or the genres of programs in the timeslots examined.

This study also investigated whether there were differences in the amount of health-related NPC between the different program genres that the NPC was screened in. This was supported in the current study. While there were no significant differences in the number of health-related NPC across the different program genres, the chi-square analysis provided support for the hypothesis. When the length of advertisements was controlled for, there were significant differences observable between the genres, with situation comedies showing the highest percentage of health-related content. This indicates that it is not so much the number of advertisements shown during different programs that might be affected, but the amount of time viewing advertisements. An investigation of the effects of this is needed before conclusions can be drawn, but this could indicate that viewers of situation comedies may have higher exposure to health

information that is utilised in order to sell a product, and therefore more likely to be biased towards purchase of certain products.

Previous research looking into program differences has focused mainly on health-related content in the program itself (Avery et al., 1997, Byrd-Bredbenner et al., 2003). It was established that sitcoms had the highest number of food messages per hour (Avery et al., 1997). This suggests that watchers of sitcoms are exposed to the most health-related content both within the program and the advertisements related to it. Further, while Dramas were found to have the second highest rate of health information in program time (Avery et al., 1997), they have one of the lowest rates for health-related content in NPC. This suggests that the health information observed by viewers of is more likely to be during programs themselves and therefore less likely to be biased towards particular products or services.

Sixty-seven percent of PSAs contained health-related information compared to only 22% of advertisements. The percentage of PSAs containing health-related information was significantly higher than the percentage of advertisements, and NPC overall. This contrasts to previous research where health-related content included both explicit and implicit content and no difference between PSAs (51%) and product advertisements (50%) was found (Byrd-Bredbenner and Grasso, 1999, Byrd-Bredbenner and Grasso, 2000a). The present results may be due to the particular PSAs screened during the study period containing more health PSAs than in comparison studies, as the percentage has risen for this category, despite the exclusion of implicit health-related messages, rather than

a systematic difference. Further examination over a longer time period would be needed to provide support for this.

There are few relevant papers where comparisons can be made between PSAs and advertisements (Byrd-Bredbenner and Grasso, 1999, Powell et al., 2007). None of these use comparisons based only on explicit references. This increases the number of advertisements with health-related content and may account for the differences observed in advertisements in this study.

Limitations

There are several limitations in this study. The primary limitation is the reduction of the data set due to technical difficulties. This reduced the dataset from the intended 52.5 hours of programming to only 44 hours. This resulted in an uneven sample of programming times across the three channels, meaning that all analysis between the channels had to be conducted using percentages, as well as possibly having an effect or masking an effect on other areas of analysis, particularly as the times missed were always the beginning of the session for channel 3 and the end of session for channel 2. However, the times used for each channel covered several programs of different genres in each taping. With different times missed for channel 2 and channel 3 this also means that at least 2 channels were recorded at all times, with all 3 channels recorded for the majority of times.

This study also looked only at health-related messages in general. More comprehensive analyses could also be conducted to determine what interactions are responsible for differences in health-related content.

Implications for further research

The present study suggests that there is a need for further research in the area of health-related content in Australian television. There has been little previous research looking at the amount of health-related advertising on television without focusing on a particular target group or product type. The differences in program type observed in the current study indicate that there may be a need for further research to establish if these differences could be affected by anything other than program genre, for example the time of screening.

Given the current rates of health-related advertising on television, it is necessary to determine how this can affect behaviour, making comparisons between implicit and explicit references. Further research is needed to determine whether, for example, the high levels of food advertising with health-related content actually influence consumers to purchase these products for health-related reasons. In assessing this, it should also be determined what proportion of these health-related claims are factual, encourage positive health behaviours, and reinforce recommended nutritional guidelines.

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