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**Disease Awareness Advertisements in Australian Magazines:
An Analysis of Content and Compliance**

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Abstract

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Introduction

Disease awareness advertising (DAA) is the promotion of a disease or human health condition and is commonly sponsored by pharmaceutical companies that manufacture a prescription-only medicine designed to treat or prevent that condition or disease. Because direct-to-consumer advertising (DTCA) of prescription medicines is prohibited in Australia, DAA provides one of the few methods by which companies can communicate directly with consumers, and potentially generate category need for their products. DAA cannot mention the name of the prescription product or brand but can contain other information such as the symptoms of the disease, as well as general treatment information (Medicines Australia 2006b). For example, a recent campaign by CSL Laboratories regarding Human Papilloma Virus and cervical cancer promoted protection from the virus for adolescent girls. DAA usually directs readers to "ask their doctor" for more information about the disease or potential treatments and tests. DAA can also be sponsored by disease support groups, other non-profit organisations (NPOs) or the government (ANZTPA 2005).

DAA has existed for some time and appears in a variety of media, however published research on this type of advertising is limited to case studies (Australian Consumers' Association 2004; Hall and Jones 2007a). No studies have been identified that determine the prevalence, nature or potential effects of DAA in Australia. There is evidence from the United States and the Netherlands that DAA can increase awareness about a condition and new treatments, as well as generate sales of prescription medicine products (Basara 1996; t'Jong, Stricker and Sturkenboom 2004). There is some controversy regarding the potential effects of pharmaceutical company sponsored DAA, with public health and consumer advocate groups expressing concerns that it can increase consumer anxiety, cause unnecessary visits to doctors (Mintzes 2006) and promote a reliance on medication over solutions such as behaviour change to solve health and lifestyle problems. However, the pharmaceutical industry maintains that DAA, like DTCA, can educate consumers regarding disease, and may enable early diagnosis and treatment (Bonaccorso and Sturchio 2002). The only identified research conducted into Australian consumers' attitudes towards DAA suggests that consumers value the information DAA provides, and feel it helps them with their discussions with doctors, but

are ambivalent as to whether DAA helps them to make better decisions about their health (Hall and Jones 2007b). Interestingly, similar views are held toward DTCA by consumers in both New Zealand and the United States (Hoek, Gendall and Calfee 2004).

Pharmaceutical company sponsored DAA in Australia is regulated by the industry body, Medicines Australia (MA) via their Code of Conduct Version 15. Guidance for DAA falls under Section 9.5 of the Code, 'Patient Education,' which states that materials can contain disease information that is current, accurate and balanced, and must not focus on one particular product but can include a broad range of treatments and may include descriptions of a therapeutic category (Medicines Australia 2006b). MA administer the Code via a Monitoring Committee that provides ongoing assessment of promotional material, and a Complaints Committee that adjudicates complaints submitted about advertisements (Medicines Australia 2008). There has been a growth in fines for breaches of the Code in recent years (Hingston 2007), as well as mounting pressure for MA to strengthen the Code across a range of areas, including promotions that target the general public (Woods 2009).

Direct-To-Consumer Advertising and DAA

In the United States (US), DAA is commonly referred to as 'help seeking' advertising, and is closely linked to Direct to Consumer Advertising (DTCA) for prescription medicine. DTCA can contain product information including the name of the brand, however there are strict criteria regarding what information is provided including requirements for risk and benefit information (Hoek et al. 2004). DTCA is only legal in the US and New Zealand, and there is considerable debate in both countries regarding its potential positive and negative effects (Auton 2007). Some of the concerns previously mentioned for DAA are also held with regard to DTCA including that it can increase consumer anxiety, cause unnecessary visits to doctors and promotes an over reliance on medication to solve health issues (Mintzes 2006).

Research into DTCA has increased over the past decade in the US (Donohue, Cevalco and Rosenthal 2007) and content analysis is a tool that has been successfully used to determine the extent and nature of DTCA across a range of media. Analyses have found that DTCA is increasing (Curry, Jarosch and Pacholok 2005) and, while television is the dominant medium, DTCA is also prevalent in print media (Frosch et al. 2007), and especially in women's magazines (Bell, Kravitz and Wilkes 2000a; Parker and Delene 1999). Content analyses have shown that DTCA is commonly found for drugs designed to treat chronic, nonlife-threatening diseases or lifestyle conditions (Holmes and Desselle 2004; Roth 1996).

Some of the content analyses of DTCA for prescription medicine explore persuasive techniques including the types of appeals employed (Bell et al. 2000a; Frosch et al. 2007). Positive emotional appeals (such as happiness) have been found to be the most prevalent in DTCA, followed by negative emotional appeals (such as the use of fear or distress), as well as some rational appeals (Frosch et al. 2007; Welch Cline and Young 2004).

The Current Study

DTCA and DAA have been subject to similar criticism, and in some instances the two forms of advertising overlap (for example, DTCA can provide information on the disease as well as the product). Because content analysis has been used to gain a deeper understanding of DTCA in the US, it was considered appropriate to use this methodology in relation to DAA. The current study used content analysis to determine the extent and nature of DAA in Australia including the types of sponsors and the communication techniques employed. The research

also sought to determine whether the pharmaceutical company-sponsored DAA included in the study were referred to the MA Code of Conduct Complaints Committee and, if so, whether the advertisements were determined to be in breach of the Code.

Methodology

Content analysis involves selecting the sample text; defining initial categories; developing codes and the coding process; implementing coding, and ensuring reliability of the coding process and results (Hsieh and Shannon 2005).

Selecting Sample Text

Women's magazines were selected as women are considered to be more proactive in seeking medical care, and more involved in health decisions regarding family members (Commonwealth Office of the Status of Women 2003). Further, there is a greater incidence of DTCA in women's magazines (Bell et al. 2000a). The two highest-circulation monthly, and the three highest-circulation weekly, general interest magazines were selected for the study as well as the highest-circulation health magazine (Magazine Publishers of Australia 2007). Monitoring was conducted over a 12 month period, and advertisements were included if their focus was a disease or health condition, but excluded if they mentioned a product or brand (such as over-the-counter pharmaceutical products or natural medicines) or if the focus was behaviour change (such as a campaign to reduce binge drinking) (Hall, Jones and Iverson in press).

Defining Categories and Codes

The study employed a directed content analysis (Hsieh and Shannon 2005) where categories and codes are developed based on theory and past research that is relevant to the current subject matter. The initial questions on the coding form asked who the advertiser was, and provided an organisational category for the advertiser (government, NPO, pharmaceutical company). Coders were also asked to identify the disease/condition that was the focus of the advertisement. Disease information was identified as an important category. Questions to determine the presence of information were based on the Bell, Wilkes et al. (2000b) study, including information on the cause or risk factors, prevalence, symptoms and treatment(s).

Two other important categories in the analysis were the advertising visuals and the advertising text (particularly the headline or title) and questions were developed to determine the presence and type of appeals based on studies conducted by Frosch, Krueger et al. (2007) and Main, Argo et al. (2004). Emotional appeals were defined as images or text that arouse feelings (such as sadness) while rational appeals were defined as factual presentation of text without emotive language. The coders were also asked to identify the explicit message (what actually appears) and the implicit message (what is implied) of the advertisement imagery, based on codes used in previous studies (Handlin 2006; Welch Cline and Young 2004).

Implementing Coding

Krippendorff (2004) recommends selecting coders with familiarity and involvement with similar material to the subject of the analysis. For the current study, three coders were selected with marketing backgrounds and one with a medical background. Training was conducted with each coder, but as recommended by Kolbe and Burnett (1991), the authors did not participate in the coding process.

Ensuring Reliability

This study utilised the Proportional Reduction in Loss (PRL) method which is considered suitable for advertising research, particularly where subjective coder judgements are made with regard to promotional material (Rust and Cooil 1994). Within the PRL the proportion of inter-rater agreement is calculated for each variable; the reliability score is then established using tables provided by Rust and Cooil (1994). The score is contingent on the number of coders used and the number of categories from which coders can respond for that variable.

Generally, the agreed limit for Chronbach's alpha for exploratory research is 0.7 (Hair et al. 1998). Because the PRL is an equivalent measure, this was deemed the minimum level for inclusion of variables in the study. One variable failed to achieve adequate reliability (emotional appeal in the advertisement headline) and was dropped from further analysis. For each of the included variables decisions were made such that the response with the greatest coder agreement was selected for each advertisement for that variable. When coders were split equally in their responses, a judgement was made by the first-named author.

The MA Code of Conduct Annual Reports were consulted for the monitoring period (2006 and 2007) to determine if any of the advertisements included in the content analysis were subject to complaints or determinations in relation to the Code of Conduct Sections 9.4 (Relationship with the General Public) or 9.5 (Patient Education).

Results

After 12 months of monitoring, a total of 60 advertisements were identified that met the inclusion criteria for the study, however, this comprised only 30 unique advertisements (i.e., duplicates were counted but not coded). Of the 30 advertisements, 11 were sponsored by a pharmaceutical company, two of which were co-sponsored with other organisations. Of the other 19 advertisements, 13 had no identifiable sponsor, three were sponsored by government and three by NPOs (Hall et al. in press).

Emotional and Rational Appeals

Emotional appeals were found in the majority of advertisement visuals and, similar to findings of analyses in the US, the majority utilised themes of happiness and healthiness (Hall et al. in press). Only two pharmaceutical company-sponsored advertisements were found to be without a rational appeal in the text, and both were for an erectile dysfunction product. Interestingly both advertisements had been the subject of complaints made to MA (Medicines Australia 2006a, 2007) and are discussed in more detail below.

Coders' responses to the implicit versus explicit messages of the imagery were similar to their interpretation of emotional appeal, with the exception of three advertisements, sponsored by Glaxo-Smith Kline, that were part of an advertising campaign regarding genital herpes. In the first advertisement, the imagery contained eight symbols: four males (depicted with square bodies) and four females (depicted with triangular bodies). One female symbol was coloured red, and the coders agreed the implicit message was that 1 in 8 people have genital herpes (which corresponds with the text in the advertisement). The second advertisement appeared over two pages and showed two groups of four female symbols of which one was coloured red on the first page and two were coloured red on the second page. The coders felt that this represented an implicit message that either 1 in 4, or 2 in 4, or 3 in 8 women have genital herpes. The final advertisement showed an image of six female symbols of which two were

coloured red. For this advertisement, the coders agreed that the implicit message of the imagery was that 2 in 6 women have genital herpes (Hall et al. in press).

Compliance with Code of Conduct

Rulings of the Code of Conduct Committee are published annually by MA, and three of the advertisements that were included in study were the subject of complaints during the monitoring period. One of the advertisements was part of the Bayer “When? Now” campaign for erectile dysfunction. This advertisement featured a close-up image of a man’s and a woman’s head in close proximity and the text encouraged consumers to visit a website to request a performance pack which was to be made available via their nominated general practitioner. The campaign materials were found to be in breach of the Code of Conduct Sections 9.5 (Patient Education) due to “the lack of balance of information and that the information was intended to encourage a patient to ask their doctor to prescribe a product” (complaint #810) (Medicines Australia 2006a). No fine was imposed, however Bayer was required to withdraw the campaign and send a corrective letter to general practitioners who were potentially affected. The second advertisement (complaint #828), also sponsored by Bayer and also about erectile dysfunction, featured an image of two bananas, one pointing up and one pointing down. While this advertisement was not found in breach of the Section 9.5 (Patient Education), it was found to be in breach of Section 10.5 (Discredit to and Reduction of Confidence in the Industry) due to the offer of a money-back guarantee (Medicines Australia 2007). The third advertisement (complaint #866) was sponsored by Pfizer Australia and comprised four pages of information on arthritis, and more specifically a therapeutic category of treatment for arthritis known as Cox-2 inhibitors, as well as references to the product made by Pfizer (Celebrex) (Medicines Australia 2007). This advertisement was found to be in breach of Section 9.4, as the name of the prescription medicine product was provided, and Section 9.5, as the information on treatments was not balanced. The advertisers were required to withdraw the material and pay a fine of \$100,000 (Medicines Australia 2007).

Discussion and Conclusion

The results of the current study show that DAA in popular Australian magazines are sponsored by pharmaceutical companies, NPOs and the government, and over a third had no identifiable sponsor. Similar to findings of analyses of DTCA in the US, the majority of DAA in the current study contained positive emotional appeals, and while emotional appeals were commonly identified in the imagery, rational appeals were commonly found in the text. The case of the genital herpes advertisements demonstrates that while the text of DAA can provide rational information, the imagery may convey a different message, and may inflate the perceived prevalence of the condition. This is an area of concern for pharmaceutical advertisers and regulators as DAA has previously been criticised for exaggerating the perceived risk or prevalence of a condition (Mintzes 2006). This may result in heightened community anxiety and potentially unnecessary visits to doctors (Hall 2008).

Three of the 11 pharmaceutical DAA identified in the current study were the subject of complaints to MA during the monitoring period. Potentially, two of the genital herpes advertisements would also have been considered to breach the Code. This suggests that a considerable proportion of industry sponsored DAA is not compliant with the Code of Conduct. The Code could be strengthened with increased penalties for non compliance or the provision of more specific guidelines for DAA similar to those provided by the Medicines and Healthcare Products Regulatory Agency in the United Kingdom (MHRA 2003).

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