

Children's Understandings of Mediated Health Campaigns for Childhood Obesity

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ABSTRACT

Purpose: The present study investigated children's understandings of the intent and importance of current media initiatives designed to target childhood obesity. Semi structured interviews were analysed using qualitative content analysis, for the responses of overweight and normal weight children.

Methodology: Thirty-three children were interviewed, 24 of normal weight and 9 overweight. They were shown 2 print and 4 television advertisements from the New South Wales Health Department website that were popularly broadcast between 2003-2007. Children were then asked if they had seen the advertisement prior to the interview, and their understanding of the intent and importance of the advertisements.

Findings: Most children in both weight groups recalled seeing 5 out of the 6 presented advertisements prior to interview. The main themes identified were 'Health Maintenance' and 'Illness Prevention' for 5 of the 6 advertisements. Overweight children were more numerous in their detection of a health message as opposed to normal weight children who mostly commented on the safety aspect of advertisement 6.

Practical implications: Future evaluations of mediated health campaigns should go beyond recording simple recall of campaign material and investigate instead the understandings of target groups. Mediated health campaigns should also specify messages to particular target groups, as they appear to be most likely to facilitate behaviour change.

Originality/value: Mediated health campaigns are mostly evaluated quantitatively rather than by qualitative means. In addition, no study has evaluated the views of overweight and normal weight children with regards to these health campaigns.

Keywords: Childhood obesity; mediated health campaigns; children's understanding;

Introduction

Obesity in the general population is described by the World Health Organisation (WHO) as a 'global epidemic' (World Health Organisation (WHO) 2007) resulting in far reaching consequences for all involved. Recent population statistics seem to suggest a similar increase in overweight and obesity for the Australian population. Fifty three percent of Australians are overweight or obese of which sixty-two percent are males and 45 percent are females (Australian Bureau of Statistics (ABS), 2007).

Wang and Lobstein (2006), report that the obesity epidemic seems particularly prevalent amongst school age children. In Australia, Margarey, Daniels & Bolton (2001), report that the rate of childhood obesity has doubled between 1985 and 1995. It is currently estimated that 19 to 25 percent of children in Australia are overweight or obese (Australian Society for the Study of Obesity (2006), Booth et al, 2001). Childhood obesity, and its associated risks, also appears to persist into adulthood (Daniels et al, 2005., Must & Strauss, 1999., Doak et al, 2006., Reilly et al, 2003). In fact, Wang & Lobstein (2006) report that one third of overweight children and half of overweight teenagers actually remain overweight or obese as adults.

Childhood obesity is also related to a number of health concerns. Immediate consequences of childhood obesity can affect most of the major systems of the body, resulting in disorders of the orthopedic, neurological, pulmonary, gastrointestinal and endocrine systems (Daniels et al, 2005, Must & Strauss, 1999, Doak et al, 2006., Reilly et al, 2003). Associated with these medical issues, quality of life is adversely affected in obese children (Daniels et al, 2005). The finding of psychopathology and social difficulties within obese groups of children has also been widely reported. Studies support the relationship between depression and obesity (Goodman & Whitaker, 2002). In fact, Dietz (1998) states

that psychological morbidity is likely to be the most enduring and widespread health concern associated with childhood obesity.

Many public health interventions for childhood obesity have utilised the mass media, such as television, to promote a health message. Two recent examples of mediated campaigns are 'Get Moving' and 'Go for 2 and 5' television and print campaigns. The campaigns encourage children to be physically active for at least one hour per day and to eat at least two servings of fruit and five servings of vegetables per day. Variations of these campaigns target children as well as their parents in meeting these requirements. However, the evaluations of these and other similar campaigns have been shown to be flawed. For example, Noar (2006) points out that the evaluation processes for most health campaigns are not thorough enough to determine changes in behaviour. In Elliot and Walker's (2007a., 2007b) assessments of the effectiveness of the '2 and 5' and 'Get Moving' campaigns, the campaigns were considered successful, but this was mostly based on the conclusion that children were aware of the advertisements rather than that they intended to change their behaviour. The rationale presented by the authors for not examining behavioural change in children for this study was that younger children did not possess the cognitive development necessary for reporting of their own behaviours. Furthermore, they ascertain that children have poorer levels of concentration and shorter attention spans, and as such, the sample of 9 to 12 year olds was limited to interviews lasting ten minutes or less (Elliot & Walker, 2007a,b) despite evidence that children over the age of 7 are able to report such outcomes (Flavell & Miller, 2006 pp. 851-887, Piaget, 1954). Further, both Snyder (2007) and Noar (2006) suggest that the campaign authors of the '2 and 5' and 'Get Moving' campaigns purport that knowledge is a valid outcome, and that this alone should ensure behavioural changes with time. However, the results of the evaluation show that this is not so. In the '2 and 5' campaign, for example, results show that despite significantly high recall amongst parents and children, 56 percent of

parents stated that the advertisements did not result in any behaviour changes (Elliot & Walker, 2007a). Similarly, the 'Get Moving' campaign had high recall (93%) in children aged 9 to 12, however, this translated to little change in participation of organised sports and a non-significant decrease from baseline in involvement in sedentary activities. The finding that increases in knowledge do not always translate to changes in behaviour is a common finding and criticism in the health campaign literature, especially as the assumption made in creating some health campaigns is that awareness of the health message is enough for people to shift their previous, unhealthy attitudes, and that this will consequently lead to a shift in behaviour (Snyder, 2007., Noar, 2006). This has been challenged in the Health psychology literature since at least the 1970s by Ajzen and Fishbein (1970) who argued for the role of intention as well as the importance of action, target, context and time. In other words, any single behaviour is composed of a) an action; this action is performed towards b) a target, c) in a particular context and d) at a particular time or occasion. Thus, the specificity or generality of behaviours need to be evaluated according to these processes rather than attitudes alone (Eagly & Chaiken, 1993). It therefore appears that knowledge alone is not necessarily sufficient to bring about change and more information about children's understanding of these campaigns is needed.

Mediated advertisement campaigns are primarily evaluated quantitatively. For example, the evaluations carried out by Elliot and Walker (2007a, b) on the Australian campaigns focused on whether or not children had viewed the advertisement, via telephone surveys, on three occasions

This does not allow for examination of the process of the campaign, and can limit understandings of which components of the campaign did or did not work, and why (Noar, 2006)

The aim of the present study is to overcome the limitations of the literature. Specifically, the aim of the current study is to qualitatively explore children's understanding of Australian media campaigns. A secondary aim of the current study is to explore normal weight and overweight children's perceptions of the advertisements. Qualitative methods give value to spoken communication, understanding and interpretation of the participant's social experiences, which results in a richer understanding of the phenomenon at hand (Smith, 2003).

To achieve this, children were asked if they had

A) Seen the advertisement,

B) What they thought the main message of the advertisement was; and

C) The perceived importance of the advertisement.

Method

Interviews were conducted with 33 participants. Twelve were aged 7-8 (36.4%), 13 were aged 9-10 (39.4 %) and 8 were 11-12 (24.2%). There were 20 boys in the sample. The final sample represented 9 overweight/obese children (27.3%) and 24 normal weight children (62.7%). Children were recruited through the New South Wales Catholic Schools system, covering one geographical region. A treatment seeking sample, who were attending Appetite Awareness Training sessions from a university Psychology Clinic, was also recruited for the current study. Children in this latter option were included in the study on the basis of their Body Mass Indices, which fell within the 'Overweight' range as determined by Cole et al (2000).

Materials

Two print advertisements were chosen from the Australian NSW Health – Childhood obesity internet web page. In addition, 4 television advertisements were shown to the children. These were typical campaign material broadcast over the 2003 - 2007 period and targeted the main causes of obesity, namely sedentary lifestyles, poor nutrition and lack of exercise. These were freely available from the Government's campaign website (www.healthactive.gov.au) and were shown in full to the children. A short description of each advertisement is provided below.

Poster Advertisement 1

The aim of this poster was to increase consumption of fruit and vegetables using the '2 serves of fruit and 5 serves of vegetables daily' rule. It depicted a figure made entirely of fruit and vegetables placed next to a written column indicating a) the importance of these recommended portions, b) a guide to the quantification of a 'serve' and c) a reference to further information.

Poster Advertisement 2

This poster featured a pie chart depicting varieties of foods placed in various categories. It also displayed how much of each food group should be consumed every day. Foods to be consumed in small amounts, such as chips and soft drinks, were placed in the bottom right hand of the page, and were not included in the pie chart.

Television Advertisement 1

The aims of television advertisement 1 were to decrease children's engagement in sedentary activities such as computer games and television watching, and to encourage them to follow more active pastimes for an hour or more per day.

Television Advertisement 2

This was a televised version of poster one, in that the encouragement of eating 2 serves of fruit and 5 serves of vegetables was emphasised using the same characters, as well as there being an exercise message in combination with the healthy eating.

Television Advertisement 3

This advertisement was specifically targeted at parents by providing ideas for including 2 serves of fruit and 5 serves of vegetables in their children's diets.

Television Advertisement 4

This advertisement was designed to promote national 'Walk to school day' and encompasses two broad messages. The first was the need for children to be generally careful when crossing the road, and encouraging children under the age of 10 to hold an adult's hand when doing so. It included the message to incorporate activity into the child's life by walking to school and being active as a means of remaining healthy.

Procedure

All children were shown the print and televised advertisements in a predetermined order, starting with the two printed posters and the four televised advertisements. After each presentation, they were asked if a) they had seen the advertisement prior to the interview, b) what they perceived as the main meaning of the advertisement and c) what was the perceived importance of the advertisement. Questions pertaining to the advertisements were part of a larger interview examining children's perceptions of healthy lifestyles. Interviews took approximately 30 minutes each to complete, and were all audio taped. Interviews were conducted at the child's school in a private room. The tapes were then transcribed.

Analyses

The responses to the advertisements were analysed using qualitative content analysis. In content analysis, categories are already pre-established and these are determined by the questions being asked. Text is coded according to these categories, whereby any section of text pertaining to any established category is counted (Priest et al, 2002). Categories are then further analysed in the second and third stages to ascertain the core themes. Interpretation of these themes is then placed in the context of the general topic being discussed, and, in the case of the current study, the participants themselves. Quotations from respondents are used to illustrate these themes (Woods et al, 2002). Global meanings about the text, and its relation to the children, were thus derived from the combination of a) themes b) any associated sub-themes c) quotations used to illustrate themes and sub-themes and, most importantly d) relating these responses back to individual participant variables and contexts (such as weight band or social functioning). In reporting these findings, a summary sentence in reference to each category was made from the same material.

Ethics

Ethics approval for this study was granted by the University Human Ethics Committee, as well as the CEO of Catholic Schools in the Archdiocese of Sydney.

Results

The theme of '**health maintenance**' was present amongst all but one of the advertisements. This theme refers to children accurately stating that advertisements were designed to promote the maintenance of good health. The ways in which health maintenance was promoted, according to the children, was directly relevant to the content of each advertisement and as such, these means composed the sub-themes of the analyses. For example, in Poster

advertisement 1, the most commonly endorsed sub-themes relating to health maintenance were:

Food content (6/9 overweight and 19/24 normal weight children)

*Paulo (overweight): *'it's sort of saying eat more fruit and vegetables and healthy stuff'*

Matthew (normal weight): *'They're trying to say don't eat junk food, just eat some more fruit and vegetables'*

Generic health behaviours, such as eating healthily (3/9 overweight and 15/24 normal weight children),

Oliver (overweight): *'So, like, people can keep healthy'*

Vanessa (normal weight): *'Because vegetables are healthy'*

The poster acting as a guide to better living (5/9 overweight children and 7/24 normal weight children)

Samantha (normal weight): *'Gives them the right guidance to, like, show them how they shouldn't be that obese and just stay healthy'*

Emma (overweight): *'So everyone knows that these things are healthy for you so you know you can eat these things'*

By contrast, the health maintenance sub-themes endorsed in Television Advertisement 1

Included:

* Real names are not used in this article to protect participants' identities

The increasing of activity (6/9 overweight and 21/24 normal weight children),

Aaron (overweight): *'Get out of your armchairs and exercise'*

Harry (normal weight): *'Do some activities'*

The decreasing of sedentary behaviours (6/9 children and 12/24 normal weight children)

Brady (overweight): *'Don't play things like Playstations or watch TV'*

Aidan (normal weight): *'It's trying to tell you that when you have free time, to stop watching TV''*

Generic health behaviours such as 'staying healthy' (cited by 4/9 overweight and 11/24 normal weight children).

Aaron (overweight): *'So they can stay healthy'*

Brooke (normal weight): *'It's important with health and that'.*

The theme of **Illness prevention** was also identified by all children as the main message and intent of all but one advertisement. When speaking of illness prevention, most children in both weight groups referred to a) obesity b) specific illnesses such as diabetes and c) general disease. Examples of such responses include:

Hugo (normal weight): *'So you don't become fat'*

Julian (normal weight): *'Lowers your risk of heart attack and lowers your risk of diabetes'*

Paulo (overweight): *'So you don't get sick'*

The analyses also revealed some themes which were not common to all advertisements. For example, one theme found in Poster Advertisement 1 was ‘**Social acceptance**’ whereby one overweight and one normal weight child stated that eating foods promoted in the poster would prevent teasing, and make a person more popular.

Oliver (overweight): *‘Kids won’t get teased as much eating this food’*

Kevin (normal weight): *‘You’ll be getting maybe more and more popular around the area. Make more friends’*

Another theme endorsed by 3 out of 24 normal weight children for poster advertisement 1 was ‘**Fitness**’ – however, this was one of the few themes which were incorrectly attributed to the advertisement.

Jared (normal weight): *‘It’s trying to help you get fit’*

Poster advertisement 2 also yielded a unique theme pertinent to its content, that being the idea of healthy food being compared to unhealthy food. This theme was endorsed by 2/9 overweight and 6/24 normal weight children, and included responses such as;

Oliver (overweight): *‘Like the good things you should eat a day, and here it’s got all oily stuff which you shouldn’t eat’*

Katrina (normal weight): *‘It’s being put into groups about which one’s healthy...or which one has fat in it’*

Similarly, a theme solely pertinent to the presentation of Television Advertisement 3 was ‘**Responsibility for food preparation**’. It was found that this theme could be subdivided into two sub-themes. One of these was ‘parents’ responsibility’ which accounted for 3/9 overweight children and 11/24 normal weight children’s responses. An example of such a response is;

Steven (normal weight): *‘Give parents ideas what they can do to make the kids eat nutritious stuff’*

The other sub-theme present in this particular advertisement was ‘own responsibility for food preparation’. This was endorsed by 3/9 overweight children and 6/24 normal weight children and an example of a response fitting this category was;

Luke (normal weight): *‘If you don’t know any healthy things to cook, it’s showing you some ideas’*

Again, such responses were interpreted as children having an accurate perception of the meanings and messages of the advertisements presented.

The biggest discrepancy in terms of perceptions / understanding was noted in Television Advertisement 4. Comprising of both a health message and a safety message, it was found that the safety aspect of this advertisement was commented on by 5/9 overweight children, and 17/24 of normal weight children as being the most important feature of the advertisement.

Aaron (overweight): *‘So your kids don’t get run over’*

Rachel (normal weight): *‘I think the whole message is to be safe when you cross the road’*

In addition to this, it was noted that a larger proportion of overweight children (8/9) detected the health aspect as the main target of the advertisement, and half (12/24) of the normal weight sample did the same.

Alan (overweight): *'Everybody try and walk to school'*

Sally (normal weight): *'It's better to walk a bit further and get more exercise'*

It was also noted that more of the overweight children in the sample (50%) endorsed both the health and safety messages of Television advertisement 2 than the normal weight sample (30%).

Discussion

The current study found that children of all weight ranges were aware of health campaigns, thereby reinforcing the notion that television is a broad and viable means of distributing information. It appeared that the majority of the children had viewed all five advertisements, with only one (Television 3) advertisement being viewed or recalled by very few. These results are replicated by previous evaluation studies where recall of advertisements was high (Elliot & Walker, 2007a,b). These results clearly show that any failure to change behaviours cannot be attributed to children not viewing these advertisements.

Children were also accurate, in general, regarding their understanding of the meanings and importance of the advertisements. Most of the children seemed to have an accurate understanding of the aims of the advertisements, and understood the importance of the

messages presented. It was noted that themes of health maintenance and illness prevention were well articulated in most of the advertisements.. These findings suggest that a lack of understanding cannot be the reason for the any lack of behavioural change associated with the advertisements.

It appeared that the greatest discrepancy in understanding of an advertisement came from Television Advertisement 4, where there clearly appeared to be three main messages – safety, health and the combination of both. It was found that overweight children were more numerous in detecting the health message of advertisement 4, whereas normal weight children tended to comment more on the safety aspect. Overweight children were also more adept at identifying the combined health and safety perspectives of this advertisement. This may be interpreted as evidence for future campaigns to target their messages to more specific populations as they are more likely to see the message as applying to them and therefore more likely to enact behaviour change. Further, since normal weight children often did not perceive the health message, the advertisement is less likely to stigmatise overweight children.

The current study was limited by its uneven sample size, as well as the biases inherent in obtaining a sample which represented one geographical area only. .

Campaigns must be aimed at a particular, target audience for maximal impact (Snyder, 2007., Noar, 2006). In this case overweight children and their parents need to be the target audience, as they would be more amenable to the kinds of health messages portrayed in these advertisements. Results of the current study supporting this statement were found in children's perceptions of television advertisement 4, whereby overweight children were more adept at detecting the health message of the campaign than their normal weight counterparts. Lastly, rather than being centred around education which has been repeatedly shown to be

ineffective in eliciting long term behavioural change (Helweg-Larsen & Collins, 1997., Stice & Shaw, 2004, Snyder, 2007., Noar, 2006) campaigns do need to incorporate some active strategies to improve the likelihood of behavioural change, in conjunction with target groups' understandings of the material.

Conclusion

To our knowledge, this is the first study of its kind which aimed to ascertain children's perceptions of mediated health campaigns by using qualitative methodology. The results seem to suggest that health campaigns were successful in promoting a health message; however, they may be able to encourage behaviour change with more specific messages towards target groups.

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