Fat, facts and fantasies: digital marketing and childhood obesity

A version of this article was originally written as the preface to a report produced by Family Kids and Youth for the Advertising Standards Authority, the UK advertising regulator. The report reviews the evidence about the impact of digital marketing on child obesity, and can be found on the CAP website.

At first glance, the relationship between food marketing and childhood obesity would seem to be quite straightforward. It is frequently claimed that levels of childhood obesity are rising, to the point where leading authorities regularly describe it as an 'epidemic'. Meanwhile, most food and drink advertising is for products high in fat, salt and sugar (HFSS). The connections here would appear to be obvious: children watch ads for 'unhealthy' food, which cause them to prefer and to choose such foods, and so they become obese.

However, the evidence from research on this matter is rather less than conclusive. Despite some claims that there is an emerging consensus, reviews of the research disagree – in some cases, quite profoundly – in their overall conclusions. And when it comes to digital and online marketing in particular, the evidence is especially limited. As such, there is an urgent need for a more informed, evidence-based discussion of this issue.

The obesity 'epidemic'

In fact, claims about an 'epidemic' of childhood obesity would seem to be quite overstated. Government statistics, published by the Health and Social Care Information Centre (part of National Statistics) show that rates of childhood obesity have more or less flat-lined (and in some areas slightly declined) over the past ten years. There was a rise in the late 1990s, to a peak in 2004, but since then there has been a decline among younger children especially. The real rise in obesity is actually among adults, especially in middle age – yet (as is so often the case) much of the debate focuses on children.

The debate on this matter is also not helped by the recurrent conflation of the terms 'overweight' and 'obese'. Media reports repeatedly claim that high percentages of the population are 'overweight-and-obese'. Yet the dangers to health of being obese are significantly greater than those of merely being overweight; and many experts assert that being mildly overweight carries very little or no additional risk. Many argue that BMI (body mass index), which is routinely used to measure overweight, is not an especially helpful index when it comes to assessing risks to health. Some years ago, apparently at the behest of insurance companies, the cut-off point for defining overweight was lowered from a BMI of 27 to 25, instantly rendering millions of people 'overweight'.

Advertising content

When it comes to advertising and marketing, the evidence initially seems somewhat clearer. Prior to the introduction of restrictions on advertising during children's

television (starting in 2007-8), Ofcom's research found that food advertising was dominated by breakfast cereals, confectionery, savoury snacks, soft drinks and fast-food restaurants; while advertising for staple items and fresh foods was declining. While the restrictions have led to a reduction in HFSS advertising around children's programmes, they do not apply to television advertising more generally – to which children of course continue to be exposed.

One consequence of the restrictions, however, was that advertisers and marketers began to look to other media, and particularly to the emerging digital media that are so popular with younger audiences. Branded websites, advergaming, viral marketing, social networking sites and other forms of social media offer significant opportunities to target specific audience groups. Several of these methods (like advergames) provide 'sticky' content, which attracts users to spend time and attention; while others (like social networking) have the advantages of 'word of mouth', which advertisers know is much more influential than traditional mass marketing. In addition, these techniques are often much less expensive than mainstream television and print advertising.

While the digital landscape is very difficult to measure, these new forms of marketing are undoubtedly on the increase. However, this is not to say that they are necessarily effective. There have been several research studies looking at the new techniques marketers are employing, specifically in advertising to children. However, it should be emphasised that content analysis of this kind does not in itself tell us anything about the effects, or the effectiveness, of such practices.

The effects of advertising

To find out about this, we need to look at research with audiences or consumers – in this case, children and young people – themselves. The problem here is that the available evidence is both limited in its scope and extent, and open to challenge in terms of the reliability of its methods. It is genuinely quite shocking to discover that, despite what appears to be growing concern about digital marketing to children, there is hardly any robust or rigorous research that looks at how children respond to it.

In terms of methods, the problems here are fairly familiar. Much of the available evidence comes from laboratory experiments. Typically, children are shown advertisements for particular products and subsequently asked if they would choose such products (or actually do so when given the opportunity). Children exposed to the advertisements are compared with a control group that is not exposed. At best, this shows that advertising can have short-term effects, if the opportunity to buy or consume is available, and if sufficient encouragement is given. But critics point out that the laboratory situation is very different from real life, where food consumption is influenced by a whole range of other factors.

Other evidence is correlational: it establishes associations between exposure to advertising and phenomena like obesity. However, this kind of research generally fails to establish causal relationships. It may be that advertising encourages people to eat an unhealthy or unbalanced diet, which in turn is one contributory factor in

obesity. But it may equally be that people who are disposed (for various reasons) to eat an unhealthy diet – or are unable to afford a healthy one – are also inclined to spend a lot of time sitting in front of a screen.

In fact, much of this research measures children's reported exposure to media rather than their exposure to advertising specifically. This is problematic, as there are many possible ways in which media use might be associated with obesity. Watching television and surfing the internet are sedentary activities, which do not burn many calories. People who spend a lot of time in front of a screen tend to do less exercise, and are more likely to prefer other sedentary activities. These are also relatively inexpensive forms of entertainment, which is a major reason why television in particular is more heavily watched in less affluent families, who are also more likely to be obese.

This is not, of course, to imply that advertising has no impact on children's food preferences. The lack of convincing proof about the causal effects of marketing does not in itself mean that such effects do not exist. Even so, most reviews of research agree that any such impact is very small. One frequently quoted figure is that exposure to television advertising accounts for some 2% of the variation in children's food choice. However, food consumption is only one factor in obesity, and as such, the influence on *obesity* is bound to be even smaller than this; although one could argue that a variation of 2% is still not negligible.

Effects on obesity

However, when it comes to obesity specifically, the evidence is exceptionally limited. Research in this field has generally explored food preference or food choice rather than obesity *per se*. However, the relationship between the food people say they prefer and what they actually eat is not straightforward. They are not always able to eat what they would ideally wish to eat: a whole range of other factors, most notably price and availability, come into play. As we all know, children may well ask for many things that (for a variety of reasons) they do not get. As such, an expressed preference for 'unhealthy' foods – let alone things like brand recognition or brand preference – among children cannot on its own be taken to result in (or be equated with) obesity.

The major problem with this research – as with so much other research about media effects – is that it tends to consider the effects of advertising in isolation from other factors such as the influence of parents or peers. This makes it difficult to offer definitive conclusions about the *relative importance* of advertising as compared with these other factors. If we wish to understand children's behaviour as consumers, we need to take account of the broader social and cultural context. Simple cause-and-effect explanations do not do justice to the complexity of the issues.

Wider research on people's food consumption shows that taste preferences and dietary patterns are largely determined by other factors, and are in place from a very young age, well before children become aware of advertising. The early years are especially important: once established, taste preferences and eating habits appear to continue with relatively little change for the rest of a person's life. Some people are

more genetically disposed towards obesity, or have an inherited preference for sweet food. Aspects of family interaction also play a role: obese children are more likely to have obese parents.

Lifestyle, and particularly the amount of physical exercise people take, is obviously another key factor. Evidence here suggests that while children's calorie intake has remained more or less steady over the past 30 years, the number of calories they burn through exercise has declined. This may relate to a number of other factors, not least the decline in free access to public space for play and exercise.

All these things relate in turn to other social differences, including ethnicity and age. The strongest association, however, is with poverty: at least in developed economies, poor people are much more likely to be obese than wealthy people. The reasons for this are partly to do with the availability and price of particular kinds of food, and the opportunity and time that people have to prepare it. If advertising does play a role here, it does so in the context of these other factors – which themselves interact in complex ways.

Digital marketing

Even so, this is not to imply that there is no cause for concern about food marketing to children, or about digital marketing specifically. There are two major issues at stake here: the possibility that marketing techniques might be misleading and the potential misuse of personal data for marketing purposes.

Previous research has shown that children are able to understand the persuasive intentions of television advertising from a fairly young age (although there is some debate about precisely when this occurs). When it comes to digital advertising, however, the issue can be more complex. It is hard to imagine that a child playing a game on a branded website or receiving unsolicited marketing emails will not recognise that there is some commercial intent here. Yet the situation is not always so clear. Much of this advertising is 'embedded', or inextricable from other content: the fact that this is indeed a commercial appeal, created by an advertiser or a company, is not always evident. In the case of viral marketing or social media advertising, the origin of the message is not always clear. Such techniques may therefore prove misleading in ways that are different from traditional advertising: put simply, it may be that people are trying to sell us things without us recognising that this is what they are doing.

Yet there is very little evidence on whether children (or people in general) are actually misled by these kinds of techniques. Marketing techniques are undoubtedly changing; but equally, people's awareness of those techniques is also likely to be changing, not least because of the large amount of public and media commentary on the issue. It is hardly surprising if people are not aware of marketing techniques that are new and less widely understood; but the effectiveness of such techniques is likely to change once they do become aware of them. In this respect, studies showing that children do not understand new digital techniques are not especially significant: what we need to know is how they understand them once they have become common practice. It may be true today that children (like adults) have less understanding of

some aspects of digital and online marketing than they do of television advertising; but it is less likely that this will be the case in five years' time.

The issue of data gathering raises similar questions. On a wider level, digital technology offers enormous potential for surveillance. For marketers, it provides opportunities to gather detailed information about individual consumers' habits and preferences and thereby to target them with products and advertising appeals that are most likely to engage them. Recent legislation means that we now have to be alerted to the use of 'cookies'; but there are many other ways in which information about us can be gathered online, and there are many situations in which we voluntarily and enthusiastically provide and share such information.

Yet there has been relatively little research about how consumers – and young consumers in particular – respond to this situation, and how their understanding might be changing over time. Are they aware of the intrusion of marketers in apparently 'private' spaces (such as social networking sites)? Are they concerned about it, or do they see it simply as a necessary price to pay for what are widely seen as 'free' online content and services? As with the issue of obesity, it is also pertinent to ask where the real problem lies. Some would argue that children are actually much more capable of understanding digital marketing techniques (or more 'digitally literate') than the majority of adults. So why should we assume that they are necessarily more vulnerable to influence?

However, the question of digital or media literacy is also far from straightforward. Obviously, the fact that somebody is aware of the persuasive intention of a given message does not necessarily mean that they are immune to its influence. Persuasion – including that of advertising and marketing – can obviously work on several levels: it often involves emotional and symbolic appeals that are not amenable to rational control. Adults, and all but very young children, know that advertisers are trying to sell them things; but this self-evidently does not mean that advertising has no influence. In this respect, digital advertising is no different from traditional advertising.

Education in media literacy – which would include studying advertising techniques – is a basic requirement in a modern consumer society. But to assume that such knowledge will somehow provide us with guaranteed protection against media influence is somewhat naïve. Advocates of media literacy education would argue that it has much broader aims in any case: it is not primarily intended as a kind of prophylactic against advertising.

Research and policy

As a researcher myself, it is probably predictable for me to conclude that we need more research on these issues. We know a fair amount about what advertisers and marketers are doing in these new digital spaces. What we do not really know is what children and young people (and indeed adults) make of it – how far they understand it, how they respond to it, and, ultimately, the effects it might have on them.

Research of this kind can hopefully contribute to a better informed, and ideally less polarised, debate about the role of digital marketing. Yet in such a rapidly changing environment, we clearly cannot wait until we have all the evidence.
Obesity is a complex issue with multiple causes, and we need appropriately complex ways of understanding and addressing it. Yet even if the effects of marketing may be much smaller than other influences, this does not imply that nothing can or should be done about it. Some potential causes may be much easier to address at a policy level than others. Even so, the danger is that regulating advertising can become a distraction from the much more difficult aspects of the issue that need to be addressed – such as child poverty – and, at worst, an opportunity for politicians to *look* as though they are doing something about it when in fact they are doing very little.

The regulation of advertising self-evidently needs to keep pace with the times, and particularly with the digital techniques that are now emerging. Yet we also need to curb the tendency to fantasise – and indeed to panic – about the evil powers of advertising. It is vital to consider the potential unintended consequences of increasing regulation, and to balance the costs against the potential benefits.

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