

REACH FAR: Criteria to Improve the Effectiveness of Social Marketing Intervention Strategies in the Obesogenic Environment

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ABSTRACT

People around the world are getting fatter; in 2000, for the first time in human history, the number of overweight people in the world equalled the number of underfed, with 1.1 billion in each group. However, informed observers and researchers know that childhood obesity is the real problem to be tackled as research has shown that childhood obesity tracks with fidelity into adulthood. This paper provides a review of the obesogenic environment and presents a framework which seeks to improve the potential success of intervention strategies specifically in the obesogenic environment. A thorough discussion and analysis of the key issues is provided throughout the paper, which concludes with eight criteria to assist social marketers in developing potentially useful intervention strategies in this area.

Keywords:

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1. Introduction

People around the world are getting fatter (Organisation for Economic Co-operation and Development 2005). Many statistics on the extent and nature of the obesity problem are provided in popular and academic publications, all of which support this statement. For example, in 2000, for the first time in human history, the number of overweight people in the world equalled the number of underfed, with 1.1 billion in each group (Gardner and Halweil 2000). But this is not a new problem; a prophetic editorial in *The Lancet* more than thirty years ago called for efforts to prevent childhood obesity (The Lancet 1974). We knew then, as we know now, that childhood obesity is the real problem to be tackled; research has shown that childhood obesity tracks with fidelity into adulthood. The simple facts are that most overweight children grow into overweight adults, and children with overweight parents tend to grow into overweight adults themselves. To compound the problem, a recent study in Australia found that mothers fail to recognise when their children are overweight or obese, and thus do not act on the knowledge; it seems, in fact, that we are now so used to overweight children being the norm, they fail to register as unusual (Campbell, Williams, Hampton and Wake 2006).

A review of the literature concerned with both the theory and practice in the area of obesity suggests that many factors have likely contributed to the 'spectacularly rapid rise in childhood obesity' (Wilson 2006, p. 941). The solutions, therefore, will require multiple components and interventions at all levels of society. This is a complex and highly important area of research that cannot be ignored. These issues must be explored and debated at the highest level.

The aim of this paper is to explore the value and potential value of social marketing intervention strategies in addressing the obesity problem. The paper provides a review of the obesogenic environment and suggests, and analyses, eight criteria to assist social marketers in developing potentially useful intervention strategies in this area. The paper is the result of a systematic review of the literature in this area, and builds on the work of other excellent reviews by Hastings and his colleagues (2003), Livingstone (2006) and McGinnis and his team (2006),

2. Overweight: Where Does Responsibility Lie?

Obesity has been defined by the World Health Organisation (WHO) as 'the abnormal or excessive accumulation of fat in adipose tissue to the extent that health may be impaired' (Lahti-Koski and Gill 2004, p. 1) and the Body Mass Index (BMI) has emerged as the generally accepted measure to use in monitoring change (Lahti-Koski and Gill 2004, pp 2-6). The BMI measure is the ratio of body weight in kilograms divided by the square of the height in metres.

Overweight and obesity have traditionally been viewed as a problem of the individual. Overweight individuals are often thought of as being 'lazy' or 'having no will power'. While individuals certainly play a role in their own weight management, recent research strongly suggests overweight and obesity are more than just individual problems. They stem mainly from the interaction of individuals with their environment. The environment in this context is the circumstances in which we live and has been termed the obesogenic environment.

The obesogenic environment has been defined as '*the sum of influences that the surroundings, opportunities and conditions of life have on promoting obesity in individuals or populations*' (Swinburn and Egger 2002). The key response to engender environmental change away from the obesogenic ethos is to intervene in ways that ensure healthy choices become the easy, acceptable and ubiquitous choices. If obesity is driven by the environment, then our main focus for intervention should be environmental change, not individual will-power.

3. A Best Practice Approach to Intervention Strategies

Despite the escalating and costly obesity problem, many of the intervention strategies over the past two decades to combat the 'disease' have been unsuccessful. In her work on the impact of television

on childhood obesity, Livingstone concludes that the 'effectiveness of a range of policy interventions are inconsistent or unclear' (Livingstone 2006, p. 15). Likewise, Flynn and colleagues in their systematic review of the literature on obesity and intervention programs found that the onward and upward march of obesity is 'testament to a deficiency in obesity prevention and treatment approaches' (Flynn et al 2006, p. 29). Flynn and colleague's rigorous research provides some valuable insights into some 147 programs.

Whilst some successful programs have been reported by Doak et al., Flynn et al., Livingstone and Guittard (all 2006), the aim of the most comprehensive study undertaken by Flynn et al. (2006) was to identify a 'best practice' program. Regrettably, none was found. Some of the important shortcomings from their work were:

- Inadequate and inappropriate research designs used to conduct the research;
- Stakeholders were not heavily involved in program development and evaluation and thirty percent of programs lacked 'feasibility'.
- Programs were generally of short duration and evaluation periods were short or non-existent
- Over two-thirds of interventions scored low on 'up-stream investment', or government and policy maker involvement.
- Less than three per cent of intervention strategies took place in the home setting.

In order to get a clearer insight into the effective management of intervention strategies, the successful programs reported by Doak et al., Flynn et al., Livingstone and Guittard (all 2006) were also analysed. Consideration of the 'good' as well as the 'failing' interventions has enabled us to develop a tentative, positive model for effective intervention strategies. We have called this model REACH FAR.

4. REACH FAR – 8 Criteria for Effective Intervention

Relevance

The factors that have a significant effect on obesity, especially in young people, need to be understood and evaluated. To date much of the debate surrounding obesity has been based on spuriously accurate data, anecdotal evidence and dogma. There is a need for clear evidence based data to guide decision – making (Doak et al. 2006).

Environment

A key feature of an intervention for obesity must be to effect some change in the surrounding obesogenic environment that makes healthy choices easier. An environmental approach to obesity prevention takes all influences on obesity (individual, physical, economic, social, technical and policy) into consideration when planning an intervention. It also focuses more on the changeable

aspects of an environment rather than the changeable aspects of an individual. Environment-based interventions do not tell people how to eat or exercise, or present dire warnings for non-compliance; they simply try to make it easier for people to eat, exercise and live in healthy ways.

Accessible Enlightened Settings

Educational institutions are a most viable setting for controlled interventions as they also provide links to other important settings like the home and are foci for upstream policy and regulatory input.

Ready made group settings for interventions employing experimental and control designs on obesity, particularly focusing on dietary patterns, nutrient intake, nutrition knowledge, and physical activity are schools, and similar settings like day-care, and after school care services (Sahota et al. 2001, Gortmaker et al. 1999). The Centres for Disease Control (2001) provides an evidence-based review that recommends school-based curricula and policies to increase physical activities. School settings also permit the linkages between individuals and a range of other settings, as well as overarching policy and regulatory bodies at a regional or national level.

The multiple functions that schooling involves have been relatively ignored. Schools are a critical setting as obesity, exercise, fitness, and other health status indicators can be directly impacted in a sustained and controlled way on large numbers of children and youth. Children spend half their lives there. Good health should be part of education and learning. Schools can identify and intervene with children at risk, and by developing health in the school community strengthen, enrich and reinforce the promotion of health-enhancing behaviour in the neighbourhood outside.

Congruence

Intervention must take account of the person(s) in their environment to enable behaviour change to be congruent with changes in the surrounding environment. There are three target levels for intervention in this field:

- I. *Individuals.* Individual interventions are difficult to control without close supervision, and therefore are most common in clinical settings for severely obese persons seriously at risk of health deterioration.
- II. *The General Population.* Population intervention programs generally focus on information, educational and facilities provision approaches to modifying diet and levels of exercise/activity. Population interventions usually stem from government/national campaign initiatives and are funded and managed by governments or their proxies.
- III. *Aggregates of Individuals.* This is a middle road in terms of interventions. These usually exist already as intact formal groups (subsets of population such as schools, school class,

guides/scouts/youth groups, employee groups, parents). Outcome measures are usually the same as for population studies but may also include psychosocial measures.

People do not live in a sterile vacuum yet many mass and individually targeted interventions seem to ignore this fact. This growing awareness is leading to the exploration of interventional approaches that leverage Social Marketing Theory, Social Cognitive Theory, and other social epidemiology theories that place a greater emphasis on the social, institutional, and cultural contexts that affect an individual's behaviours (Stokals 2000).

Home Foundation

It is important to involve the home setting in intervention programs, as early behavioural habits and routines to do with food and exercise are learned there. Parents control the purse strings.

However, access to the home is fraught with difficulties and is perhaps best accessed via the school as part of the school community. It is important to note that food eaten at school is often brought from home so that the lunch box from home influences the school food environment greatly. Again, this reflects the importance of including a range of settings, not one in isolation. The most investigated home issue is TV watching, and some home intervention studies hold promise by demonstrating that reducing sedentary behaviours and increasing activity levels pays dividends for weight loss (Robinson 1999).

Framework

The need to consider the obese person as an integrated part of their obesogenic environment points the way to the epidemiological model as an appropriate basis for generating an obesity prevention intervention. The epidemiological triad of **host**, **vector** and **environment** is a traditional medical approach to looking at the origin and spread of infectious diseases. A range of epidemics have been reversed by joint general public health and individual clinical effort including HIV/AIDS, cot death and some cancers and non-biological ones such as smoking, car accidents.

The epidemiological model consists of three components, *host*, *vector* and *environment*.

- *Host*: Since the host is a person in this epidemic, host based strategies are generally informational, educational and psychological trying to change behaviour, self-beliefs, knowledge and attitudes. Other host factors include medical/genetic and metabolic characteristics of the person.
- *Vector*: Main vectors in weight increase are energy-dense foods and drinks with increasing portion size, coupled with low-energy expenditure through decreasing physical activity and

increasing amounts of sedentary behaviours. Vector-based strategies modify eating habits, introduce healthy diets and encourage activity that is more physical.

- *Environment:* The environment is increasingly obesogenic and strategies must try to alter that through economic, policy, cultural and social environments. Environmental changes require positive action from political and social change agents who can alter such items as food marketing rules, labelling regulations, and provide funding for physical activities and recreational facilities/equipment (Swinburn and Egger 2002).

Achieve Involvement

Behaviour change is a complex and challenging process and there is need for commitment to, and support for the process from multiple stakeholders including parents, siblings, teachers, clinicians, food/beverage companies and restaurants, health officials and local and national governments. At the program level, it is important to involve the participants actively in the intervention so that they are taking appropriate action in a supervised, controlled and public manner.

Rigour

There is clear evidence that many existing program are methodologically flawed. Rigorous research designs, statistical and qualitative analyses, and careful evaluation should be used to obtain results that stand up to scrutiny. There must be provision for some programs for longer interventions and multiple measures, as well as further development of programs to show long-term effects. Health interventions take time to take root in the minds, attitudes and norms of a culture.

5. Conclusion

The aim of this paper was to explore the value and potential value of social marketing intervention strategies in addressing the obesity problem. The paper provided a review of the obesogenic environment and observed the ineffectual nature of many intervention strategies, in fact the lack of a 'best practice' model. Consequently, eight criteria have been presented to assist social marketers in developing potentially useful intervention strategies in this area; the mnemonic for this contribution is REACH FAR.

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