Re-examining Obesity Prevention Strategy:

Is social marketing still a relevant option?

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Abstract

Globally, obesity is among the five leading risk factors for death. While the increase in obesity is a worldwide phenomenon, the rate of increase in England is of particular concern for local health authorities and policy makers. At the current rate, the prevalence is estimated to increase from 26% in 2010 to over 50% by 2050. This underscores the need for an urgent review of current strategy to inform policy makers and programme managers.

Social marketing is a recognised intervention method for systematically influencing behaviour and has been used effectively in various health programmes worldwide, including the United Kingdom, for obesity control. This paper examines the underlying assumptions and implications of social marketing framework and critically assesses the impact of various interventions to reduce obesity, including the social marketing campaigns by the Department of Health (DH), UK.

The paper concludes that the social marketing framework, designed with end users in mind, has robust explanatory powers in relation to the adoption of a healthy lifestyle. However, interventions using a social marketing framework have produced limited results. The less-than-optimum performance may be attributed to various factors, including poor understanding and/or application of behavioural theories; lack of customer insight; and absence of meaningful exchange opportunities. Further research is needed in order to understand behaviour, specific to diet and physical activity, and the significance of legislation on marketing of food products.

Keywords: Obesity, behaviour change, social marketing, Change4Life

Re-examining Obesity Prevention Strategy: Is social marketing still a relevant option?

Obesity, described as a body mass index (BMI) of 30 or more, is a recognised risk factor for non-communicable diseases including diabetes, cardiovascular disease, and some cancers. Its prevalence has more than doubled in the last 25 years (WHO, 2010). The situation is particularly alarming in England, with 24% of men and 26% women found to be obese in a recent NHS survey (NHS Statistic, 2014). Based on this current trend, it has been estimated that by 2050, 60% of adult men and 50% of adult women will be affected by obesity (Foresight, 2007).

Obesity is caused by imbalance in energy intake (food and drink) and energy expenditure (exercise). Various factors may contribute to this imbalance, including genetic, demographic, and behavioural (NIH, 2012). The treatment of obesity includes behavioural therapy, drugs, and, in extreme cases, surgery. Behavioural therapy targets eating and exercise habits and attempts to provide individuals with the necessary skills and motivation for behaviour change. The main components of behavioural therapy are setting of specific goals, providing necessary skills on how to achieve them, and emphasis on small changes rather than drastic ones that cannot be sustained (Foster, 2002; Foster et al., 2005; Wadden & Foster, 2000). The success of obesity treatment can be adversely affected by the lack of facilities, poor or inadequate counselling skills of the healthcare provider, and non-adherence to the treatment by the target audience (Foster et al., 2005).

Obesity control interventions are guided by two distinct models: the *medical model* focuses on treatment and is directed toward individual patients, while the *public health model* concentrates on prevention and looks at risk factors within the target population (Adler & Stewart, 2009). Most of the interventions use a combination of both models, as individually they are considered

incomplete. Some interventions use the commercial marketing framework to achieve behavioural change. They are classified as social marketing interventions (Morris & Clarkson, 2009; NSMC, 2006; Rayner, 2007). Social marketing interventions have several distinguishing characteristics: a) the behaviour change is voluntary; b) there is a clear benefit for the target audience; c) they utilise commercial marketing techniques, such as consumer research, market segmentation, and the strategic application of a marketing mix; and, finally, d) the goal is to benefit society and not the organisation (Andreasen, 1995; Kotler et al., 2002; Stead et al., 2007).

In the UK, until recently the government's focus has been more on highlighting the problems caused by obesity than on providing solutions (Martin, 2008). The first national social marketing programme to tackle obesity was launched in 2009. Known as *Change4Life* (C4L), it initially targeted families with children aged 11 and below. This was followed by an integrated strategy involving local authorities, healthcare professionals, businesses, charities, and the general population to reverse the trend by 2020 (DH, 2011). The response to the programme can best be described as mixed. This paper aims to examine the underlying assumptions of the social marketing framework and the impact of social marketing campaigns for obesity control.

Method

As the debate on the appropriateness of social marketing theories and models is still ongoing, with little consensus on the effectiveness of models for specific situations, we examined the practitioners' designed social marketing models used for obesity control in a given socio-economic context. We reviewed literature on the social marketing framework and various interventions using social marketing principles to promote healthy diet and physical activities in general and national social marketing strategy for obesity by the DH in particular.

The purpose was to identify the lacunae in social marketing principles and campaigns for obesity control with the objective of generating evidence-based strategic guides to inform future strategy. The research used this platform to gain insight into the motivation behind the adoption of social marketing interventions, the conditions under which they were applied, and their impact on programme results.

Social Marketing Intervention

Social marketing was introduced as a discipline in the early 1970s, when Kotler and Zaltman (1971) realised that the same marketing principles that are used to sell products to consumers could be used to sell ideas, attitudes, and behaviours. Since then, the concept has been used extensively in international health programmes (Meekers and Rahaim, 2005; Weinreich, 1999). However, despite a strong theoretical base and around four decades of practise, there is still a lack of agreement on what comprises social marketing (Peattie & Peattie, 2003). Academics consider the concept as a set of theories that guide behavioural change interventions (Rayner, 2006); practitioners describe it as an intervention method (Brown, 2002; Population Services International, 2003). The National Social Marketing Centre (NSMC), a centre of excellence for social marketing and behaviour change in the UK, defines social marketing in two different ways: a) as a set of concepts and principles to guide strategies for changing behaviour and b) as an intervention method to achieve behaviour change (NSMC, 2006). Similar to Andreasen's (2002) six-point criteria, NSMC also developed an eight-point social marketing benchmark criteria (see Exhibit 1) to differentiate social marketing interventions from other mass media campaigns (Gracia–Marco et al, 2011). This became necessary as many social marketing interventions were found to be non-compliant with social marketing principles. A review of 54 social marketing interventions by Stead et al. (2007) indicated that most social marketing interventions did not focus

on the behavioural change component because these interventions were never defined in terms of behaviour change. In one family planning project, social marketing was described as distribution of free contraceptives (Price, 2001), while in another for nutrition and physical activity, social advertising and communication were treated as social marketing (Alcalay & Bell, 2000).

Exhibit 1: The NSMC Social Marketing Benchmark Criteria

The NSMC social marketing benchmark criteria

1. Behavior: Aims to change people's actual behavior

2. Customer orientation: Focuses on the audience

3. Theory: Uses behavioral theories to understand behavior and inform the intervention

4. Insight: Customer research identifies actionable insight

5. Exchange: Considers benefits and costs of adopting and maintaining a new behavior

6. Competition: Seeks to understand what competes for the audience's time, attention and inclination to behave in a particular way

7. Segmentation: Avoid "one size fit all" approach

8. Method Mix: Use a mix of methods to bring about behavior change

Source: http://www.thensmc.com/sites/default/files/benchmark-criteria-090910.pdf

In another review of social marketing campaigns for nutrition and physical activity, Gracia–Marco et al. (2012) suggested that the interventions were generally successful in improving energy intake and behavioural components, but they did not find evidence of any positive change

in physiological terms. The review also suggested the absence of any relationship between the numbers of NSMC behavioural change benchmark criteria and the outcome.

Social Marketing Framework

The major challenge in presenting a precise definition for social marketing is the many criteria involved in the process. Like commercial marketing, it is not a theory in itself but a framework or structure that draws from psychology, sociology, anthropology, and communication theory to understand how to influence people's behaviour (Kotler & Zaltman, 1971). It focuses on target audiences and uses research to improve marketing activities. But unlike commercial marketing, it targets complex, often controversial behaviours with no immediate benefits to the target audiences (Smith, 2006). According to the two popular definitions of social marketing by Andreasen (1995) and Kotler et al. (2002), the behaviour change is voluntary, and it is for the benefit of the individuals as well as the society. The exclusion of any commercial benefit was the major departure from conventional marketing (MacFadyen et al., 2002; Stead et al., 2007). The other significant point was the emphasis on behaviour change without any reference to products or services. In commercial marketing, increase in demand for products and services and subsequently profit is the primary objective of all campaigns (Dann, 2006).

The social marketing framework, first presented by Grier and Bryant (2005), was developed from the commercial marketing framework and included *exchange theory, audience segmentation, competition, the marketing mix, consumer orientation*, and *continuous monitoring*. Based on similar criteria, Morris and Clarkson (2009) suggested a social marketing framework for public health interventions. Both frameworks are customer centred and rely on exchange theory along with the use of segmentation and application of marketing mix to influence behaviour of target population. The social marketing framework is based on six principles as opposed to eight

criteria by NSMC, as it does not include customer orientation and the use of behavioural theory as separate elements. The important components of the social marketing framework are discussed below.

Behaviour Change Theory

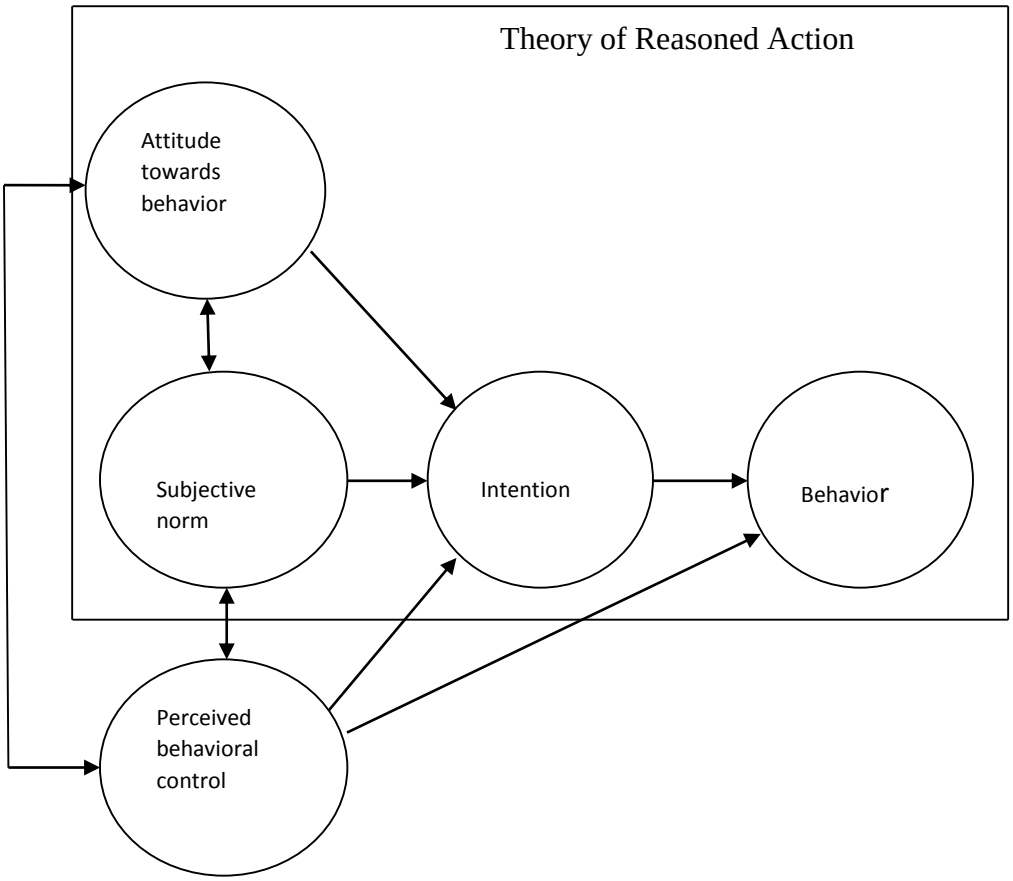
The primary goal of social marketing interventions is to improve the personal welfare of the target audience and subsequently of the society by changing behaviour (Andreasen, 1995). Social marketing products may include a particular practise or a tangible product, but the main objective remains behaviour change (Kotler & Roberto, 1989). Hence, the real aim of obesity campaigns is not to promote tangible products like healthy foods or exercise machines but to alter behaviour. To give up poor eating habits and/or engage in increased physical activity is difficult and requires considerable effort and commitment, particularly when there are no immediate benefits (McDermott et al., 2005). Social marketing strategy therefore must provide an environment that facilitates the desired behaviour and removes or reduces barriers to change. The factors that interfere with change include inertia, enjoyment as a result of current behaviours, or just absence of options (Hasting, 2003; MacAskill et al., 2002; MacFayden et al., 1999).

Factors that influence behaviour have been the subject of discussions for social psychologists for a long time (Fishbein & Capella, 2006). The initial assessment of studies examining the relationship between attitudes and behaviour by Wicker (1969) suggested that attitude has no influence on behaviour; however, the relatively new and widely acknowledged *theory of reasoned action* (TRA) by Ajzen and Fishbein (1980) indicated an indirect role of attitude in predicting behaviour. TRA states that individual behaviour is determined by one's intention, which is a function of attitude toward behaviour and subjective norms. The critics of TRA, including Hartell et al. (1998) and Albarracin et al. (2001), argue that the relationship between

attitude and behaviour is reciprocal and that behaviour can influence intentions as well as attitudes; the degree of association depends on past experience, suggesting earlier experience as a significant component in the shaping of current behaviour.

Ajzen's (1985; 1991) *theory of planned behaviour* (TPB), an extension of TRA, included an additional variable, the perceived behavioural control along with attitude and subjective norms as determinants of behaviour as shown in Figure 1.

Figure 1: The Theory of Planned Behaviour



Source: Ajzen (1991)

Perceived behavioural control refers to people's perception of the ease or difficulty in performing the desired behaviour and is more significant than the actual behavioural control

(Ajzen, 1991). TPB suggests that perceived behavioural control, along with intention, can be used to predict behavioural achievement. It further suggests that ability of perceived behavioural control to predict behaviour is restricted when the information on the behaviour is limited or the requirements or resources are changed (Ajzen, 1985).

The theory of reasoned action has been quite useful in explaining a variety of conditions; it assumes that all behaviours are under voluntary control (Madden et al., 1992; Taghian & D'Souza, 2007), suggesting that intention can only predict behaviour that is under voluntary control and where there is no constraint on action. In situations where the action is constrained, the intention alone cannot predict behaviour. The theory of planned behaviour, on the other hand, is useful in predicting behaviour not under voluntary control; it explains the potential constraints on the action as perceived by the individuals. The role of perceived behavioural control in the theory of planned behaviour has a major contribution in the cognition model designed to predict desired behaviour (Armitage & Conner, 2001).

However, there are also other theories of behavioural predictions. Fishbein (2000) proposed an *integrated model* by combining several behavioural theories. According to the Fishbein (2000) integrated model, behaviour, in addition to intention, also depends on a) the skills and ability necessary to perform the behaviour and b) the presence of a supportive environment. The behavioural theories offer key insight for understanding current practises and can be compared with customer insight in commercial marketing (Morris & Clarkson, 2009). Social marketing intervention utilises the knowledge about attitude and behaviour of the target population to develop communication strategies and to create a conducive environment to facilitate behaviour change. While behaviour theories can be useful in developing communication strategies, the success of the

programme ultimately rests on the effectiveness of the communication message (Fishbein & Cappella, 2006).

Exchange Theory

The main feature of marketing is what exchange theory described as the willingness of individuals or groups to exchange resources for perceived benefits. It is based on the key philosophy of consumer orientation (Lefebvre & Flora, 1988). While the significance of exchange has been highlighted in social marketing, there are practical difficulties in explaining the process due to the considerable efforts required to change behaviour with no immediate benefit to the target audience (Bagozzi, 1975; McDermott et al., 2005). To overcome these difficulties, social marketers must find ways to offer benefits that the consumer values and recognise the intangible costs that the consumers pay, like the discomfort associated with changing behaviour (Grier & Bryant, 2005). This information is obtained through formative research, which is an important component of the social marketing framework.

Segmentation

Not everyone in the target population has same perception about obesity and/or the need for change. Segmentation is therefore needed a) to define homogeneous groups according to one or more criteria like geographic, demographic, and behaviour and b) to target segments for designing marketing mix strategies (Andreasen, 1995; Kotler, Roberto, & Lee, 2002). Social marketing segmentation focuses on current behaviour and future intentions rather than age, ethnicity, or other demographic variables. It then uses tailor-made strategies to address the requirements of individual segments (Forthofer & Bryant, 2000). It is important to focus on behaviour, but age, occupation, and income are important variables in obesity and cannot be ignored altogether.

Marketing Mix

The adoption of a *marketing mix*, also known as the 4Ps, to influence behaviour is the central theme of social marketing interventions. Marketing mix is often used in the marketing parlance to describe the set of marketing tools that an organisation uses for implementing its strategy (Kotler & Armstrong, 2010). Hardly can any meaningful discussion on marketing strategy be had without making adequate reference to marketing mix, as it constitutes one of the core concepts of marketing theory (Rafiq & Ahmend, 1995). The blending of product, price, promotion, and place defines the planning and implementation of an integrated marketing strategy. The relevance and applicability of the 4Ps in social marketing programmes is discussed below.

Product. Traditionally, product is considered to be something tangible, a physical entity or service that can be exchanged, but in social marketing products could be ideas, social causes, or desired behaviour (Lefebvre & Flora, 1988). The difficulty in formulating a concept for social marketing products vis-à-vis consumer products like toilet rolls is the absence of immediate need for behaviour change (Bloom & Novelli, 1981; Kotler & Roberto, 1989).

Kotler et al. (2002) described social marketing products using the three levels of products: the core, tangible, and augmented levels. They refer to the benefits people would gain from performing the desired behaviour as the core product and the behaviour as the actual product. The products and services used to facilitate behaviour change were defined as augmented products. This is in contrast with commercial marketing, where the actual product is tangible and the augmented product is intangible (Kotler et al., 2005). The reversal of tangible and intangible products in social marketing confuses many programme managers. Wood (2008) states that the social marketing product model is difficult to understand and implement; therefore, the programme implementers tend to push the augmented products instead of the core benefits. This underscores

the need for greater emphasis on behaviour change communication in programmes as compared to actual products and services (Grier & Bryant, 2005).

Price. In commercial marketing, pricing is described as the most important element of marketing mix, as it generates revenue for the organisation and pays for the cost of product, distribution, and promotion, but in social marketing, price can be monetary as well as non-monetary, like time, effort, or change in lifestyle (Kotler & Roberto, 1989). The monetary price plays an important role in positioning products in terms of quality and improving access to social products; for example, high price suggests better quality, while low price facilitates access to social products by poor populations. The monetary price is also used to limit the usage of non-healthy products like tobacco and alcohol products. However, many social marketing products or services have little or no monetary price (Bloom and Novelli, 1981; Rothschild, 1979); the costs are usually intangible in nature, like diminished pleasure, embarrassment, and the psychological discomfort that accompanies change (Grier & Bryant, 2005). Considering the significance of monetary and non-monetary price, the challenge is to address the psychological barrier/cost and encourage people to continue healthy behaviours. The studies in social learning also suggest that people are motivated by tangible incentives immediately after the behaviour (Bandura, 1977).

Place. Place in social marketing is more than just providing a convenient location for exchange; it also involves measures that make the desired behaviour more appealing to the target population (Kotler et al., 2002). It includes the provision for a place where the desired behaviour is facilitated through the use of tangible products. It also includes intermediaries that can provide products or information or perform other functions to support behaviour change (Grier & Bryant, 2005). Alcalay and Bell (2000) suggest "social availability" as an important distribution objective in social marketing. It is described as support and acceptance of healthy behaviour by the society.

This can be achieved through advocacy and mobilising opinion leaders to support healthy behaviour.

Promotion. Promotion is referred to as persuasive communications to convey the product benefit, price, and availability to the target audience. It involves a clear definition of the target audience, communication objectives, and optimum methods including media and frequency to reach the target groups. Promotional activities generally include advertising, personal selling, publicity, and sales promotion. In social marketing, it also includes professional training, community-based activities, and skill building to encourage desired behaviour (Grier & Bryant, 2005). Due to the high visibility of promotion in the marketing mix, many believe that promotion is the only relevant element in social marketing. Until recently, promotion was restricted to creating awareness and very little was done to sell the benefits of behaviour change (Novelli & Bloom, 1981). The problem has been attributed to the nature of the products in social marketing and difficulties in building product ideas around product benefits (Wood, 2008). Nonetheless, researchers (Glenane–Antoniadis et al., 2003; Grier and Bryant, 2005; Lefebvre & Flora, 1988) agree on the need to integrate promotion with product, price, and the distribution channel that is directed toward the target population.

While the *4Ps* discussed above have been widely mentioned in the literature, it is also noteworthy to point out the arguments in the extant literature which introduce three additional elements – *process*, *people* and *physical evidence* (Boom & Bitner, 1981 cited in Ahmed, 1995). Although these authors argue that the inclusion of these elements is to make the marketing mix amenable to transactions of services, their introduction has received very strong support (Goldsmith, 1999; Kotler et al., 2009; Solomon et al., 2009). Hence, this extension of marketing mix elements also has some relevance in social marketing. For example, people are involved in

managing social marketing programmes, and the process of managing them could have significant implications for how successful it could be in achieving the desired impact. In majority of cases the customers judge services on the basis of how efficient and effective the service process is. Hence, the relevance of the efficiency and effectiveness of the process adopted by various social marketing organisations cannot be ignored in terms of the perception of the stakeholders about the quality of the offerings. Maintaining physical presence in various forms such as logos, offices, and buildings can also go a long way towards "tangiblising" the programme of social marketing organisations.

Formative Research

Grier and Bryant (2005) described consumer research as the backbone of customer orientation. Formative research is a process to identify target audience need and the factors that influence behaviour and is considered an integral part of public health intervention (Trip–Reimer et al., 2001). It includes audience analysis, channel analysis, and market analysis (Thakeray & Neiger, 2003). Audience analysis provides vital information on target population needs and the cost of addressing them, while channel analysis identifies the best ways to reach the target population. Market analysis identifies partners and competitors. The information is used in development of effective marketing strategies and their implementation. In short, formative research is essential to understanding the needs of the target audience and its perceptions of costs and benefits, as well as the environmental influences that deter them from the desired behaviours.

Monitoring and Evaluation

Programme monitoring is an integral part of all social marketing interventions. Each intervention is evaluated against the programme objectives, and its effectiveness is assessed. The process is designed to provide longitudinal data for programme delivery and utilisation trends

(Lefebvre & Flora, 1988). Programme managers use continuous monitoring to gauge the consumers' response to marketing strategies. The messages and material are often revised based on this information (Balch & Sutton, 1997). The monitoring of progress is essential for effective implementation, including adjustments of activities according to requirements of the target population.

Application of Framework in Obesity Control

National governments and health organisations are recognising the importance of social marketing strategy in changing behaviour and are adopting social marketing framework in obesity control programmes.

The social marketing process generally involves six main steps: a) initial planning; b) formative research; c) strategy development; d) programme development and pre-testing of material and non-material interventions; e) implementation; and f) monitoring and evaluation (Grier & Bryant, 2005). These steps need to be obesity specific and adapted to the requirements of the target population as well as the local environment. Too much focus on individuals without addressing the social environment that is responsible for causing the problem in the first place has been criticised by researchers (Grier & Bryant, 2005; Wlallack, 2002).

The social marketing framework focussing on behaviour change has been used to varying degrees in different health campaigns with reasonable success (Abroms & Maibach, 2008; Gordon et al., 2006). For this reason, it was included as the integral component of obesity control strategies (Change4Life) by the Department of Health, UK.

Change4Life Campaign

The first national social marketing campaign to address the obesity problem in England was launched in 2009. The campaign, labelled as Change4Life Strategy or C4L, was developed

by the DH under the Healthy Weight, Healthy Life Strategy, in consultation with academics and commercial sector using behaviour-change theory and the lessons learned from similar campaigns in other health interventions (DH, 2009).

Change4Life initially focussed on prevention rather than treating obesity. It targeted young children under 11 with the objective of changing their unhealthy lifestyles by providing circumstances to avoid weight gain and influence them to adopt healthy behaviours. The campaign was divided into five distinct phases to create preconditions for behaviour change and to support their efforts to achieve behaviour change targets. An important feature of this campaign was emphasis on prelaunch activities, including briefing on research findings for those involved in implementation. The C4L campaign heavily relied on social marketing for achieving healthy weight. This was based on the assumption that social marketing is a systematic approach for addressing barriers to behaviour change through the use of several interdependent activities as shown in Exhibit 2.

Exhibit 2: C4L Assumptions

Social marketing will support the overall Healthy Weight, Healthy Lives strategy by:

- creating a segmentation model that allows resources to be targeted to those individuals who are most in need of help (i.e. whose attitudes and behaviours place their children most at risk of excess weight gain);
- providing insight into why those individuals hold those attitudes and behave as they do;
- creating a communications campaign to change those attitudes;
- providing 'products' (such as handbooks, questionnaires, wall charts, web content) that people can use to help them change their behaviours;
- signposting people to services (such as breastfeeding cafés, accompanied walks, free swimming and cookery classes); and
- bringing together a coalition of local, non-governmental and commercial sector organisations that will use their influence to change behaviour.

Source: Department of Health (2009) *Change 4 Life Marketing Strategy*, London: DH Communications Directorate. Available at: http://www.nhs.uk/change4life/supporter-resources/downloads/change4life_marketing%20strategy_april09.pdf

However, despite a strong theoretical base and systematic implementation, the results of the C4L campaign remain less than satisfactory. The obesity data suggest that there is no sign of any improvement in the final outcome. A recent review by Croker et al. (2012) indicates that while there was a significant improvement in the awareness of C4L, the campaign had very little impact on attitude or behaviour. The study was commissioned by the DH for independent evaluation of the Change4Life strategy. The main objective of the study was to evaluate the impact of the communication material (the family information pack) component of C4L on a) parents' attitudes towards their children's eating and physical activity behaviour, b) their intentions to change, and finally c) the reported diet and activity behaviours of parents and children.

The poor impact of the C4L campaign on attitudes and intentions is not in line with other social marketing campaigns in the US, Australia, and Europe, where some positive results have been observed in all cases (Bauman et al 2001; Huhman et al, 2010; Wammes et al., 2005). However, the impact on behaviour has been mixed; in certain studies, a positive impact was noted, while in others no change in behaviour was found (Craig et al, 2009; Huhman et al., 2005).

The possible explanations can be summarised in five points: a) a relatively low level of engagement by the target audience was achieved, b) the campaign targeted multiple and complex behaviours instead of focussing on a specific behaviour, c) it lacked clarity on target groups—it was not clear whether the target was parents or the child, d) the behavioural models used were untested, and finally, e) no evidence showed that social marketing criteria were actually applied. The relevance of these points are well documented (Croker et al., 2012; Evans et al., 2011; Sweet & Fortier, 2010) and could have been responsible for the low impact of the C4L campaign. Based on these findings, Croker et al. (2012) underline the need for developing future campaigns based on behaviour change theory that are pre-tested. It is important to mention here that the study only

evaluated one communication component of the campaign, i.e., the Family Information Pack. All findings of the study were therefore restricted to a specific component only and may not be considered appropriate for generalisation. Nevertheless, it was the first empirical evaluation of the campaign, and findings can be applied in the design of future campaigns. Most of the issues were basic in nature and can be addressed in future programmes either at the design or implementation stage.

Based on the above, we can summarise that despite some issues, C4L was problem focussed and adopted a systematic approach to address the barriers to behaviour change through the use of various interdependent activities derived from the social marketing framework. One of the issues in the social marketing framework is the effective application of the all-important commercial marketing concept of exchange theory, particularly in the absence of any immediate and tangible benefits to the target audience. This was perhaps the main reason for low involvement in the C4L campaign. Many social marketing programmes have tried to address this issue by including notable and immediate incentives in exchange for adopting healthy behaviour. The *VERB* Campaign, a programme to encourage physical activity, launched in the USA in 2002, presented being "cool" as an incentive for physical activity to children aged 9–13. A similar programme in Australia for school children aged 5–12 known as Get Moving presented "fun" as an incentive for one hour of physical activity every day (Cismaru & Lavack, 2007).

The selection of the right target group must be addressed carefully at the campaign designing stage. In most of the obesity prevention programmes, children are the primary target group, but adults, particularly those who are directly or indirectly involved in their training and development, like parents and teachers, cannot be ignored. They are as important as the primary target group and should be treated as one. Incentives for these groups (parents and teachers) need

to be designed in addition to the incentives for the primary target groups, keeping in mind their interests and preferences. Early inclusion of vulnerable groups, including people who are at higher risk due to their age, income level, profession, ethnicity, or lifestyle, in future campaigns may contribute toward positive results in a relatively short time.

Effective application of formative research in social marketing campaigns is an important requirement. Formative research not only helps in understanding barriers to behaviour change but is also useful in the development of evidence-based marketing strategies and communication materials. Lack of research, particularly pre-testing of communication material, is not an option. Inadequate utilisation of research underscores the need for programme managers and practitioners to improve their knowledge and skills levels in social marketing framework through special training (Thakeray & Neiger, 2003).

Finally, the C4L campaign was guided by a hypothetical behaviour change model that was developed using the prevailing literature. The model provided a set of assumptions that guided all marketing activities. It is not very clear which specific behavioural model was applied in the campaign. Furthermore, researchers do not agree on a single behavioural change model for obesity. The earlier theories suggested that determinants of behaviour are intention and people's perception of the ease or difficulty in performing the desired behaviour (Ajzen & Fishbein, 1980; Ajzen, 1991). The relatively new integrated theory by Fishbein and Cappella (2006) included skills and the ability to perform the behaviour along with the absence of any environmental constraints, thus making the need for a supportive environment a requirement for behaviour change. This is supported *protection motivation theory* (PMT) by Rogers (1975; 1983). According to PMT, the motivation is maximised when the threat to health is serious and the person believes that he or she has the skills and ability to adapt. While these theories are the foundations on which health

communications are developed, many researchers consider that behaviour has no role in obesity, as it is caused by uncontrollable factors like genetic and hormonal influences, hence, some individuals may never be able to achieve a normal weight. (Foster et al., 2005).

Conclusion

Social marketing definition has evolved in recent years, from the basic application of commercial marketing for social purposes to include voluntary behaviour change for the benefit of individuals and society. The behaviour change element, although not included in the initial definition of social marketing, is now considered the new imperative and is the major component of social marketing interventions. The social marketing framework, derived from commercial marketing, is a systematic approach for addressing barriers to behaviour change through the use of several interdependent activities. It is a well-accepted and widely used intervention method for behaviour change.

However, due to many forms and models used in social marketing, it has been difficult to clearly define the target audience for social marketing interventions. While some researchers (Andreasen, 2002) suggest individuals as the primary target for all marketing activities, others (Donovan & Henley, 2003; Hastings et al., 2000) argue that social marketing must include strategies to influence environment in order to facilitate social change. The argument is based on the assumption that individuals on their own are not capable of changing public policies. There is little evidence of any attempts in C4L or other obesity campaigns to influence public policy with respect to diet and physical activity. This may have been one of the reasons for poor compliance by the target group.

Other problems in social marketing interventions for diet and physical activity, including C4L campaign, can be narrowed down to the application of three fundamental concepts: *a)*

behaviour change theory, *b) customer orientation* and *c) exchange theory.* The main issue with the use of behaviour change theory is the absence of an accepted model. The social marketing framework is built around behaviour change; it is not a model for understanding behaviour. There is also a shortage of behavioural research specific to diet and physical activity, making it difficult for programme managers to design and implement a programme in the absence of a robust behavioural model (Baranowski et al., 2003). Behavioural theories like the theory of planned behaviour (Ajzen, 1981), protection motivation theory (Rogers, 1985) and the integrated model by Fishbein & Capella (2006) have been found to be useful in predicting behaviour in general, but their usefulness in the context of obesity campaigns is yet to be confirmed through empirical evaluation. Once the model is established, communication messages can be built around that. It must be pointed out here that communication is a separate research area and has not been covered in this paper.

Another issue in these campaigns is the *customer orientation*. Social marketing campaigns heavily rely on development of strategies based on thorough understanding of audience's needs and preferences. Formative research is the primary source for understanding customers' needs, interests, and preferences. It is used to collect essential information on demography, knowledge, attitude, and current practises. Studies confirm that interventions using research and pre-testing communication material are more effective (Grier & Bryant, 2005; Wong et al., 2003). It is also believed that programmes benefit from improved research methodologies, including the use of mixed methods and better evaluation techniques (Grier & Bryant, 2005). The success of VERB and *5-a-Day* programmes for physical activity and diet, respectively, have been attributed to the quality of informational, educational, and promotional materials developed using the information collected through extensive formative research. Effective use of formative research is therefore

required not only to understand barriers to behaviour change but also to develop and evaluate customer-sensitive communication materials.

The *exchange theory* may be a simple concept in conventional marketing; its application can be a little challenging in the social marketing context. Primarily, due to the absence of any "immediate or tangible" benefits that can be offered in exchange for desired behaviour. The problem in obesity campaigns is to find and offer something of equal or higher value to the target groups to give up old dietary habits or lifestyle. In reality, whatever is offered as an exchange is considered of no benefit by the target audience (Wood, 2008). Thus, making it necessary for programme managers to understand the requirements of service users and manage the marketing mix accordingly to make the new behaviour an attractive option, and remove the barriers to change by providing a supportive environment.

Finally, despite the fact that there is a large amount of literature confirming the effectiveness of health interventions based on social marketing framework, the role of such interventions in obesity context is inconclusive. Nevertheless, social marketing is a recognised intervention method in public health programmes despite some inherent and unresolved issues with the social marketing framework. Obesity, on the other hand, is a complicated disorder that is caused by multiple factors, including non-behavioural ones like genetics. Researchers agree that behavioural treatment is an effective method and can help in achieving a healthier weight. Programme planners and managers also find social marketing framework a useful tool for design and implementation of obesity campaigns that is driven by target population and aims to make desired behaviour (healthy eating and regular exercise) an attractive option by highlighting benefits of change and reducing the associated costs.

Future Direction

An attempt has been made in this research to provide valuable insight on principles and approaches adopted in obesity campaigns in a given socio-economic context. Future research may consider similar studies in other countries to consolidate the findings of this paper.

The usefulness of an appropriate behavioural model has been adequately covered in the current literature, but there is not much data available on the impact of the model on behaviour specific to diet and physical activity. This is an area that needs to be investigated on an urgent basis.

Further research is also required to examine the role of legislation relating to marketing and distribution of certain food products, as part of creating a supportive environment like those applicable to the sale of tobacco products and the use of seatbelts in automobiles.

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