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REVIEW

Can social marketing be applied to leprosy programmes?

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Summary The implementation of multidrug therapy (MDT) has been highly effective in curing patients and reducing leprosy prevalence. In some countries, however, a significant number of cases remain undetected or are detected late. Although compliance with drug therapy is generally good, a significant proportion still defaults treatment in countries where the leprosy burden is still high. This paper proposes that leprosy control or elimination efforts might be enhanced by the application of social marketing principles. It first outlines the principles of social marketing and then reviews a successful social marketing campaign in Sri Lanka to increase case detection and treatment. The paper concludes with a discussion of the opportunities for using social marketing principles to enhance the success of current leprosy community heath education programmes and leprosy treatment services.

Introduction

The development of multidrug therapy (MDT) for the treatment of leprosy in the early 1980s was the crucial step towards control of the disease. The MDT implementation, started in control programmes in 1982–1985 and used worldwide by 1990, has been highly effective in curing patients and reducing prevalence. Registered cases have fallen from 5·4 million worldwide in 1985 to below 1 million in 1998.[1] At the end of 1999, the leprosy prevalence rate at the global level was 1·25 cases per 10,000 people.[2] In spite of tremendous progress made in eliminating leprosy in most of the endemic countries, there are still areas where a significant number of cases remain undetected or are detected late. Although compliance with drug therapy is generally good, a significant proportion still defaults treatment in some countries.[3] In these areas, the accessibility of health services, their capacity to provide MDT services and community awareness about the disease are still not at a satisfactory level.[4] The main challenges here would be to increase community awareness of the curability of the disease, motivate undetected cases to seek early treatment to prevent disabilities and ensure

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that patients comply with and complete their treatment. To meet these challenges, there is a need for skilful planning of health education programmes and delivery of leprosy treatment services that meet patients' needs. These leprosy control efforts may be enhanced with the social marketing approach.

Social marketing, first articulated by Philip Kotler[5] in the 1970s, has been defined as the application of commercial marketing technologies to the analysis, planning, execution, and evaluation of programmes designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of their society.[6] When applied to health, it is the adaptation of commercial marketing techniques to increase the acceptability of desired health practices, services or products. It stresses that the consumer (target audience) should be the central focus for planning and conducting a program or delivering a service.

The social marketing approach attempts to promote social products (desired health behaviours or products such as condoms or oral rehydration therapy) by focusing on the following (i) price—what the target audience must give up in order to receive the programme's benefits, (ii) product—what the programme is trying to change within the target audience, (iii) place of product delivery, (iv) promotion—how the message is communicated, (v) audience segmentation—how to devise messages to appeal to the different subsets of the target group, and (vi) market research—how to use research to assess the target groups' needs and concerns. With consistent and long-term government commitment, social marketing programmes have proven highly effective. Social marketing has been applied in the United States to change individual behaviours such as increasing the use of seat-belts, reducing smoking, promoting the appropriate use of drugs, and discouraging driving under the influence of alcohol.[6] In other countries, it has been applied to promote the use of treatment services for sexually transmitted diseases[7] and the dietary intake of vitamin A-rich foods.[8]

The leprosy elimination and treatment programme may be enhanced by the application of social marketing principles. This paper first outlines the principles of social marketing and then discusses the use of social marketing to improve current leprosy community health education programmes and leprosy services.

Principles of social marketing

FOCUS ON THE BEHAVIOUR OF THE TARGET AUDIENCE

The social marketing approach states that individuals will change their behaviour only when it is compatible with their perceptions, values and sufficiently convenient to them. Social marketing efforts to influence individuals' decisions and behaviours therefore hinge on understanding why individuals behave as they do and what they perceive as costs and benefits of the desired behaviour change. A social marketing approach to behaviour change is guided by three assumptions about human behaviour (i) the theory of exchange (ii) low and high involvement behaviour and (iii) stages in behaviour change.

Theory of exchange

Marketing is based on the notion that individuals will exchange their much-valued resources (money, effort or time) for perceived benefits if they perceived that the benefits of the new behaviour outweighed the perceived costs. The essential task in social marketing is to

persuade the target audience that there is more to gain than lose by adopting the desired behaviour.

Low and high involvement behaviour

To develop an effective marketing strategy for a product, be it a health service or practice, it is important to understand the complexity of the consumer's decision. Decisions that are of minor importance, demand little information, and lack emotional or social consequence such as deciding between soap brands are considered low involvement decisions. Appealing packaging and catchy slogans may be sufficient for those types of decisions. Most health behaviour changes, however, require high involvement decisions. Thus, much more effort is required to persuade health consumers to adopt and maintain behaviours that may be contrary to popular conceptions or values or that involve persons other than the primary consumer. Health providers in social marketing have to be equipped with multidisciplinary theories on behaviour change, and communication and market research skills to analyse and effect behaviour change.

Stages in behaviour change

According to Prochaska and DiClemente's Transtheoretical Model,[9] people are in different stages of their readiness to change their behaviour. The social marketing approach recognizes the need to tailor the message or strategy specifically to the stage of behaviour change. Individuals in the pre-contemplation stage are not even thinking about changing and may not be aware of the new behavioural option. The challenge for social marketers is to increase awareness about the new behaviour and convince them that it is compatible with their values and lives. At the contemplation stage, consumers are aware of and may be actively evaluating the cost and inconvenience versus the benefits of the new behaviour, their ability to change and possible reactions from friends, family and peers. At this stage, educational strategies have to respond specifically to their unique concerns. At the action stage, consumers are ready to change but may lack the skills, self- efficacy (confidence in their ability to change) or support. Social marketers at this stage have to equip them with skills, increase their self-efficacy and provide support to facilitate behaviour change. At the maintenance stage, when the health consumers have moved to action, the social marketing task is to sustain the change by reinforcement and rewards. Clearly, a social marketing strategy geared to different stages of high involvement behaviour change has clear advantages over traditional mass education approaches that rely only on increasing awareness and knowledge as a means of influencing behaviour.

AUDIENCE SEGMENTATION

Audience segmentation refers to the act of dividing broad target populations into smaller and more homogenous segments so that limited resources can be concentrated on essential groups who are severely affected by the problem or who require special health programmes or services due to their particular social or economic position. Segmenting also permits social marketers to tailor their strategies to respond to the special needs of different audiences and to design health education messages to appeal to different subsets of the target group.

SOCIAL MARKET RESEARCH

As social marketing is a consumer-centred process that responds to consumer wants, needs, expectations and satisfaction, consumer research is vital to programme success. A variety of research methods such as focus groups, intercept interviews and representative surveys are used to assess consumers' needs and concerns and refine messages, products and distribution channels before the health programmes are implemented fully.

THE SOCIAL MARKETING MIX

Four key elements are commonly considered in social marketing interventions: product, price, place and promotion. With regard to the product, be it a health behaviour, a service or an object, the essential task is to ensure that it is suitable and appropriate for the target audience. The element of price comprises what the target audience must give up in order to receive the product's benefits. These would include the monetary, psychological and social costs as well as the time, effort required, inconvenience and the unpleasant situation such as attending a clinic. Place focuses on the location of product delivery, for example, the place for treatment of leprosy. Promotion refers to the use of a wide array of media to promote the product or services. The social marketing mix thus refers to a strategic convergence of the right product (health behaviours) delivered to carefully segmented target populations at a reasonable price, in an appropriate place, and using effective promotion.

Use of social marketing in planning health promotion programmes

Health promotion has been defined as a combination of health education and related organizational, economic and environmental supports for behaviour conducive to health.[10] Many health promotion models[10–13] are available to guide the planning of health promotion programmes. Depending on the level of intervention (individual, group or organization) and the target of change (complex behaviour, organizational or policy change), different models or a combination of models are adopted. Social marketing is a useful health promotion model for planning mass media communication programmes to promote health. It shares some similarities with Green's PRECEDE PROCEED health promotion planning framework,[10] in that it integrates (i) behaviour change theories such as the health belief model[14] to analyse factors influencing the target group's behaviour with (ii) communication models[15,16] to design appealing messages and identify appropriate communication methods and media to reach target groups. The strength of the social marketing model lies in understanding the target group and designing information, education and communication (IEC) strategies based on their wants and needs rather than what health programme managers direct that they should do. The stages in the design of a social marketing programme are summarized in Figure 1. Like other health promotion models, it includes planning, implementation and feedback (evaluation).

Review on the use of social marketing in leprosy programmes

Some components of the social marketing models have been applied to leprosy control programmes in the past two decades. The use of blister calendar packs for dispensing leprosy drugs, for example, is a form of 'product packaging' in social marketing to promote acceptability, easy storage and dispensing for the target consumer. Use of these packs has

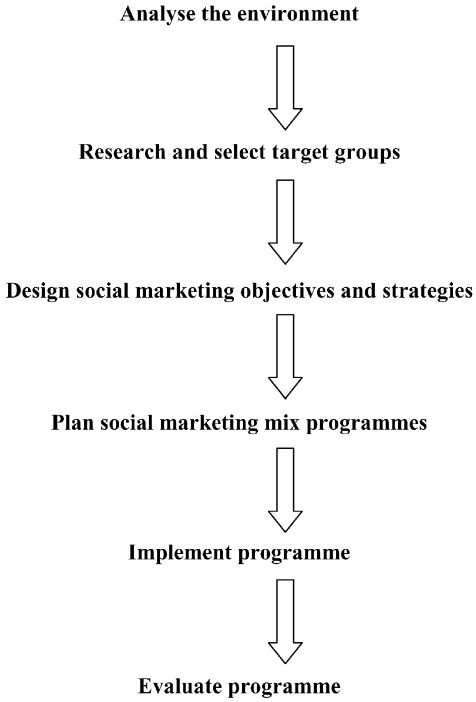

Figure 1. Stages in the social marketing approach. Adapted from Kotler P, Roberto EL. *Social marketing: strategies for changing public behaviour.* The Free Press, New York, 1989.

affected compliance with varying degrees of success compared with loose drugs,[17–20] with some countries showing enhanced compliance,[17] some no difference,[18] and others[20] reporting disappointing experience due to the tendency for clofazimine to stick on to the plastic in hot climatic conditions; this leads to rupture of the capsules on trying to remove them from the blister plastic packs. This varied picture could be explained by the complex behaviour of drug compliance. Many factors other than product packaging influence drug compliance. These include the patients' beliefs, psychosocial and cultural factors, family support, attitudes of staff and barriers to their intake such as side effects and inconvenience.

SOCIAL MARKETING PROGRAMME ON LEPROSY IN SRI LANKA

A more comprehensive application of social marketing principles has been applied to the national leprosy elimination programme in Sri Lanka with considerable success.[21] In the early nineties, Sri Lanka with support from Ciba-Geigy Leprosy Fund launched a national social marketing campaign on leprosy. The campaign went through the following stages.

- *Analyse environment and conduct research on target groups*. A community-based survey on knowledge, attitudes and practices on Leprosy was conducted. Focus group discussions were also held with leprosy patients and their families to explore their perceptions on leprosy. The studies revealed that leprosy was perceived as an extremely infectious, incurable and dreaded disease where patients' fingers fell off.
- *Design objectives***.** A national campaign was launched with the aims of increasing

community awareness of the early signs and curability of leprosy and encouraging people to self-report and seek early treatment.

- *Plan social marketing mix.* The baseline findings were used to design and prioritize message contents by focusing on the product (seeking early treatment for leprosy); price (free drugs); place (location of clinics); and promotion (message and media). A simple clear message 'Now leprosy can be cured with a modern drug without deformities. Seek treatment today' was used. The community was also informed that the drug was free and available at all government and private clinics. The message was designed to be different and exclusive from other diseases for easy association and recall. The message was also promoted in a positive manner. A logo was created, which depicted a perfect hand holding a flower. The flower was used to symbolize softness and gentleness related to sensitivity, which is a symptom of leprosy. The flower was also used as a symbol for a 'get-well' gesture.

  Principles of audience segmentation were applied. Important target groups (young adults and doctors) were identified and separate messages were designed to appeal to the different target groups. Young adults were targeted as they were mostly literate and amenable to change and hence could influence their parents or elders with leprosy to seek treatment. The message targeting young adults stressed the curability of leprosy and linked the benefits of seeking early treatment and hence being cured with what they value such as getting married, being accepted by loved ones and having a family. The television presentation depicted a young beautiful girl who has been cured of leprosy. It began with her getting ready for her wedding ceremony and being surrounded by her husband, mother-in-law, relatives and friends. It ended with her having a beautiful baby (personal communication). Another television scene showed a beautiful actress bathing in the river, when she suddenly dropped the piece of soap in her hand due to numbness from leprosy. This was followed by the campaign line 'Go to the clinic for treatment'. The message to doctors reminded them to identify early patients with signs of leprosy.
- *Implement the programme.* The press, television, radio, posters and pamphlets were used to communicate the message. A famous local actor was used as the spokesperson in the television campaign to dispel misconceptions about leprosy being a highly contagious, deadly and dreaded disease and to explain that it was curable without any deformity if early treatment was sought. Calendars with messages on the signs and symptoms of leprosy were distributed free to doctors Focus groups were used to pretest the messages before their widespread dissemination.

  To cope with the increased demand for services following the campaign, training in leprosy management was given to all doctors, paramedics, village leaders, other health staff and even Ayurvedic doctors.
- Evaluate the programme. Regular 6-monthly cross sectional surveys were used to evaluate the programme. It led to a 105% increase in new patients within 6 months of the campaign and another 50% increase within a year.[21] Focus groups were conducted regularly to track the acceptability of the message and changes were made accordingly to improve programme activities (personal communication).

Discussion

POTENTIAL AND STRENGTHS OF SOCIAL MARKETING

The strengths of social marketing lie in its focus on identifying the target groups' needs and developing an integrated mass communication campaign to promote health. Social marketing

has been used effectively to change complex lifestyle behaviours.[6–8] The experience in Sri Lanka has shown its effectiveness in increasing early case detection and treatment of leprosy cases. Clearly, there is much scope for the application of social marketing principles to enhance the success of current leprosy control efforts.

LIMITATIONS OF SOCIAL MARKETING

Leprosy programme managers should, however, take note of some major differences between social marketing and commercial marketing, that make it more difficult to apply commercial marketing techniques in leprosy control programmes. First, there is a fundamental difference in the nature of the products on offer. Selling the message on 'cure for leprosy' is not like selling soap or chocolates. The 'product' that is promoted in leprosy health education—to seek early treatment and comply with medication so as to effect cure and protect against deformities—is often intangible and offers gratification in the often distant future. This is in contrast to commercial sales techniques that promise immediate gratification. Second, there is a considerable difference in the size of budgets available for social marketing in the public domain as compared with commercial marketing in the private sector. Financial, manpower and structural constraints in developing countries make it difficult to provide high quality and efficient leprosy services. Third, health education in leprosy seeks to change deeply ingrained stigma while commercial marketing seeks to produce a relatively simple behavioural response, that is, getting the target group to buy a product which probably differs from previously purchased products only in its physical or psychological packaging.

There is probably no single model which can adequately guide the development of a comprehensive programme to influence the multiple and complex determinants of stigma, health-seeking behaviour and prevention of disabilities in leprosy. Depending on the local context, leprosy programme managers may need to draw on their own local knowledge and experience, expertise from different disciplines and use a combination of health promotion models to plan programmes that are deemed to be most feasible and effective at any particular time.

Taking into account the strengths and limitations of the social marketing approach, the following section explores how it can be applied to enhance the effectiveness of leprosy community health education programmes and treatment and rehabilitation services.

APPLICATION OF SOCIAL MARKETING IN LEPROSY CONTROL PROGRAMMES

Community health education

Community health education in leprosy control aims to (i) encourage undetected cases to seek early treatment by creating better awareness of the early signs of the disease and its curability and (ii) change the community's negative attitudes towards leprosy patients. Research has shown that self-referred patients are more compliant than patients who have been detected by mass surveys.[22] A person's decision to self-report or come early for treatment is very much influenced by his evaluation of the social consequences of being diagnosed as leprosy and the community's attitudes and behaviour towards them. Thus, the reason for delay in seeking treatment my be fear of being rejected by the community rather than lack of awareness of the disease. The following social marketing principles should be applied to enhance the success of leprosy community health education programmes.

Design strategies and messages to respond to consumers' perceived benefits and costs

The benefits of seeking early treatment for leprosy to prevent disabilities are obvious to health professionals. On the other hand, leprosy patients may be aware of the benefits but do not act on the message by seeking help as they feel well. In addition, they think of the inconvenience and high cost of going to a health facility for treatment as they may lose a day's wage or face the stigma associated with the disease. The health educator should conduct focus groups with the target group to find out what they value so that the message to seek early treatment could be linked to their values to motivate them to act. For example, they may be motivated to seek early treatment if we stressed the benefits that are meaningful to them such as being able to prevent unsightly deformities, get married and work to support the family. Motivation is only the first step to getting people to go for treatment. Further measures have to be taken to enable them to do so by improving access and removing barriers to the use of health facilities.

Vary messages to tailor to the different behaviour change stages

It should be noted that the target group are in different stages of behaviour change. While some individuals, being aware of the early signs of leprosy and the benefits of early treatment, would seek treatment, others could be in the contemplation stage and are debating the costs and benefits of early treatment. Yet others may not even be aware that leprosy is curable or that they have leprosy. Hence, diverse marketing strategies or health education messages have to be designed to accommodate the different needs of the target group at various stages of behaviour change. High quality research of the target group is needed to understand their educational needs and socio-cultural beliefs about their illness so that their illness concepts can be incorporated into the health messages.

Be creative and innovative with media and messages to appeal to the target audience

Health messages are often presented in a boring factual manner that lacks appeal and is unable to get the attention of the target audience. Health educators should learn from commercial marketing to make more innovative use of messages and media to appeal to the audience. The traditional approach of using pictures of leprosy patients with unsightly deformities is often used because it was assumed that these messages would scare people into action. However, this scare tactic may backfire as people are driven away from action by repulsive messages. The 'scare tactic' may also perpetuate the stigma associated with leprosy. Health educators should make more effective use of the fear appeal by including solutions that are easy to perform and effective to give the target audience a sense of control. Pictures of unsightly deformities, if used, should be complemented with pictures of good-looking leprosy patients with no unsightly deformities due to early and effective treatment, to emphasize its positive tangible benefits. Alternatively, more positive messages on the effectiveness of early treatment should be used to attract the target audience's attention. A positive message was used in Sri Lanka[21] with a perfect hand holding a flower to demonstrate a 'get well' gesture.

The message should be tailored to the age and socio-cultural characteristics of the target group. It should convince them by stating the reasons for and the benefits of the intended behaviour change. The media and methods used for community health education need not be expensive. For example, health messages can be incorporated into local songs, miming, games, quizzes and puppet shows. Popular local actors, credible people and healthy-looking leprosy patients should be used as spokespersons for the messages.

Prior to designing the message and selecting the media to disseminate it, research on the target group should be conducted to determine their areas of ignorance, misconceptions and needs by combining qualitative methods such as focus groups or in-depth interviews with quantitative methods such as representative surveys. The message should be pre-tested to find out if the audience understands and believes in it.

IMPROVING LEPROSY SERVICES

The objectives of leprosy treatment and rehabilitation services are to ensure that undetected cases self-report voluntarily and seek early treatment and that patients comply with follow-up treatment, self-care and rehabilitation to prevent complications and disabilities. These services may be enhanced by applying the following social marketing principles.

Improve access

Inaccessibility of treatment centres, unfriendly staff, lack of patient education skills, shortages and irregularities in drug supplies, and logistics other than patient awareness about the disease may lead to dissatisfaction of the patients and their caregivers and hence non-compliance to follow-up. A study carried out in China showed that poor access to health services has led to delays in case detection and increase in disabilities.[23] The opening hours of the clinics, their geographic location and the uninterrupted availability of drugs should be addressed to increase access to and improve utilization of leprosy services by patients and their caregivers.

Train health care providers to be patient-centred

Social marketing is very much a consumer-centred process that responds to consumer wants, needs, satisfaction, and expectations. This approach is very appropriate for managing leprosy patients, as leprosy is still a very much feared and stigmatized disease and patients need to be given time to accept the diagnosis and express their concerns. Research showed that the quality of the health care provider-patient relationship influences patient compliance with treatment.[24,25] It is important to improve the holistic care of leprosy patients at the clinics, hospital or rehabilitation centres by addressing their psychosocial concerns. Other than training health care providers on the management of the disease and side effects from drug treatment, attention should be given to the training of health care providers in communication and counselling skills. Health providers must learn to empathize, listen to patients' concerns and respond to them. The paternalistic approach which is often used by health care providers in managing patients in developing countries is not only inappropriate but would deter patients from returning for follow-up treatment. Health providers should also learn problem-solving skills to assess the patients' reasons for defaulting treatment or follow-up and act on them. Hence, they should be trained on techniques to analyse and change behaviour such as the use of the health belief model,[14] self-efficacy techniques and Green's PRECEDE framework.[10]

Promote and advertise treatment services

Along with securing adequate and uninterrupted drug distribution, a leprosy social marketing programme must inform target groups about the availability of free and effective treatment and how and where to get it.

Consider policy change

Implementing a comprehensive and effective social marketing programme for leprosy control is easier to theorize about than to do. There are many barriers to behaviour change other than the disease stigma. These include insufficient resources, obstructive policies from national governments and the negative attitudes of the family, employer and community towards leprosy patients. Thus, a social marketing programme on leprosy has several tiers of target consumers with the leprosy patient at the lowest level and the community and government at the highest level, who can either facilitate or impede programme activities. The challenge for leprosy programme managers is to act as advocates to influence other levels of target consumers such as policymakers so that they will introduce policies to promote better integration of leprosy patients into the community and work place.

CONCLUSION

This paper reviews the principles of social marketing and explores how they can be applied to improve the planning and delivery of leprosy control programmes. The social marketing approach has much potential in improving community health education programmes and patient services. Leprosy programme managers should design positive health messages and use innovative media to appeal to and reach target groups to motivate leprosy patients to seek early treatment and the community to accept leprosy patients. Treatment services should focus on the leprosy patients' needs and satisfaction by enhancing training of health care providers in communication and behaviour change skills, and by improving the patients' access to quality care and friendly services.

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