Use of Social Marketing to Develop Culturally Innovative Diabetes Interventions

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Abstract

Diabetes continues to increase in magnitude throughout the United States and abroad. It is expected to increase by 165% from 2000 to 2050. Diabetes poses a particular burden to those in ethnic minority populations. African Americans, Hispanics, and American Indians are more likely to be affected by diabetes, to be less active in health-promoting behavior, and to have fewer resources to address related complications compared with whites.

Because diabetes disproportionately affects ethnic minorities in the United States, it is imperative that interventions be tailored to these audiences. To develop effective interventions, program developers must identify an audience-centered planning process that provides a foundation for culturally innovative interventions.

Social marketing efforts in both domestic and international settings have been successful at improving the lives and health status of targeted individuals and communities. This article describes how the social marketing process can be used to create interventions that are culturally innovative and relevant. The Social Marketing Assessment and Response Tool (SMART) model is used to establish a relationship between social marketing and culturally specific interventions. The model incorporates a systematic and sequential process that includes preliminary planning; audience, channel, and market analyses; materials development and pretesting; implementation; and evaluation. Diabetes interventions that are developed and implemented with this approach hold promise as solutions that are more likely to be adopted by targeted audiences and to result in the desired health status changes.

Diabetes is a public health problem of increasing magnitude. It is the sixth leading cause of death in the United States.[1] The prevalence of diagnosed diabetes increased 49% from 1990 to 2000[2] and is expected to increase 165% from 2000 to 2050.[3] The largest increases are projected to be among the elderly, followed by African-American males and females, followed by white males and females.[3]

Racial and ethnic groups are disproportionately affected by diabetes and its complications. Specifically, compared with non-Hispanic whites, non-Hispanic blacks are twice as likely to have diabetes. Similarly, Hispanics are 1.9 times more likely, American Indians and Alaska Natives are 2.6 times more likely, and Native Hawaiians are 2.5 times more likely to have diabetes than are non-Hispanic whites.[4]

Because diabetes disproportionately affects ethnic minorities in the United States, diabetes interventions must be tailored to these audiences. To do so effectively, program developers must identify an audience-centered planning process that provides a foundation for culturally innovative interventions.

A recent article by Tripp-Reimer et al.[5] suggested that diabetes interventions must be developed that address cultural variations within ethnic communities. Specifically, the authors outlined four phases of cultural assessment (general assessment, problem- or situation-specific cultural information, detailed cultural factors, and patient and family views) that could guide the program development process for ethnic clients and communities. As part of this planning process, they suggested using social marketing strategies to

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identify and work with key community organizations (e.g., academia, lay health care providers, government, and faith-based groups), develop appropriate messages, and disseminate these messages and other information through the most suitable channels. This approach, which uses cultural elements to create programs, is referred to as "culturally innovative."[5]

This article will describe how the social marketing process can facilitate the development of culturally innovative diabetes interventions.

Social marketing is defined as "the application of commercial marketing technologies to the analysis, planning, execution, and evaluation of programs designed to influence the voluntary behavior of target audiences in order to improve their personal welfare and that of their society."[6] It has been further described as a planning framework that is theory-driven and consumer-focused and as one that positions the target audience or consumer at the center of data collection, program development, and program delivery.[7] The bottom line in social marketing is behavior change.

Social marketing is sometimes viewed as manipulative and often perceived as a contradiction in terms because marketing itself is often interpreted as the business of selling goods and services.[8] If marketing is pursued at the exclusion of all other considerations but profit, it will eventually clash with the social purpose of behavior change and improved health.[8] In contrast, the primary intent of social marketing is to identify and understand consumer preferences and barriers related to an intended service or program before its development and implementation.

What distinguishes the social marketing process from traditional approaches is the consumer orientation at all levels of the planning, development, implementation, and evaluation stages. This is in contrast to programs that are more paternalistic and driven from a top-down approach. Social marketing–based efforts both domestically and internationally have been successful at improving the lives and health status of individuals and communities.[9–11]

Key steps in the social marketing process are illustrated in Table 1. Using the Social Marketing Assessment and Response Tool (SMART)[12] as a model, this article will discuss the application of these steps to targeted interventions for culturally innovative population-based diabetes programs.

Table 1. The SMART Model

Phase 1	*Preliminary Planning* • Identify a problem and name it in terms of behaviors. • Develop general goals. • Outline preliminary plans for evaluation. • Project program costs.
Phase 2	*Audience Analysis* • Segment and identify the target audience. • Identify formative research methods. • Identify consumer wants, needs, and preferences. • Develop preliminary ideas for preferred interventions and communication strategies.
Phase 3	*Channel Analysis* • Identify appropriate communication channels. • Determine how many channels should be used. • Assess options for program distribution. • Identify communication roles for program partners.
Phase 4	*Market Analysis* • Establish and define the market mix (4 Ps: product, price, place, and promotion). • Assess the market to identify competitors, allies, and partners.
Phase 5	*Develop Interventions and Materials and Conduct Pretesting* • Interpret and translate the marketing mix into a strategy that represents exchange and societal good. • Develop program interventions and materials using information collected in audience, market, and channel analyses. • Pretest and refine the program.
Phase 6	*Implementation* • Communicate with partners and clarify involvement. • Activate communication and distribution strategies. • Document procedures and compare progress to time lines. • Refine the program.
Phase 7	*Evaluation* • Assess the degree to which the target audience is receiving the program. • Assess short-term results and make refinements in interventions. • Ensure that program delivery is consistent with established protocol. • Analyze changes in behavior and health status in the target audience.

LINKING SOCIAL MARKETING AND DIABETES INTERVENTIONS

Phase 1: Preliminary Planning

Although social marketing is audience-based, program developers (including community partners) most often identify a preliminary problem of interest (i.e., cause of death or disability, determinant) and related goals to provide initial but broad direction. This occurs during the first phase of social marketing and is referred to as "preliminary planning." Preliminary planning includes identifying a problem of interest, developing general program goals, outlining evaluation plans, and projecting program costs.

In diabetes planning, ensuring that the problem and related goals are culturally relevant among racial and ethnic minority groups may establish a direction that is not considered a high priority among majority or mainstream populations. For example, among whites with diabetes, data may indicate that self-monitoring is the most effective method to control blood glucose levels. However, among Hispanics, data may suggest that family support in general is more important. In this case, program developers

might establish a preliminary goal to increase familial support among Hispanics with diabetes. While goals are general statements of intent, specific program objectives are written later after adequate formative research data have been collected and analyzed. Evaluation planning, or determining measures of success, would include identifying pre- and posttest measures and data collection methods.

Phases 2–4: Formative Research

In developing health interventions, Tripp-Reimer et al.[5] suggest that program planners use a cultural assessment focused on analysis of beliefs, values, and practices. This assessment can be complemented and enhanced by social marketing phases 2–4: audience analysis, channel analysis, and market analysis, which are collectively referred to as "formative research."

Formative research is defined as the process of identifying the wants and needs of the target audience as well as factors that influence its behavior, including benefits, barriers, and readiness to change.[13] With formative research data, the practitioner's goal is to describe the target audience: who they are, what is important to them, what influences their behavior, and what would enable them to engage in the desired behavior. This description then guides the development of a program intervention strategy designed to make it easier for individuals in the target audience to engage in the desired behavior. Reducing or eliminating identified barriers and communicating through preferred mediums accomplishes this.

Audience analysis. The aim of audience analysis is to identify the target audience's needs and the costs and benefits of addressing those needs.[14] It includes understanding the consumer's point of view,[15] desires, and values.[16] It provides for knowing the consumer's perspective before starting the strategy design.[17]

The topics assessed during audience analysis for a diabetes program could include ethnicity, acculturation, religion, patterns of decision making, reason for seeking care, beliefs about the problem, current diet, food preparation practices, the meaning of food in patients' lives,[5] perception of diabetes, attitudes, readiness to change, empowerment, personal interests, values, and goals. Some examples of audience analysis for diabetes follow.

- Researchers held focus groups among urban African Americans with diabetes to identify salient psychosocial topics. Results indicated that the major psychosocial issue was the importance of food and eating in African-American culture.[18]
- Formative research for a diabetes prevention program in the Republic of the Marshall Islands used in-depth interviews, semi-structured interviews, and direct observation to obtain data regarding cultural views on obesity, healthy body size, knowledge, attitudes and beliefs about food, perceptions of diabetes, and child-feeding practices.[19]
- Another study used a survey and in-depth interviews to assess beliefs about health, food, the body, and disease as they related to diabetes management among people living in the Caribbean.[20]

Channel analysis. Channel analysis is the process of discovering the best way to reach the target audience and identifying their preferred sources of information. It includes determining what communication channels audience members come into contact with on a regular basis and which of those are most influential and important.[21] Channels can be people, institutions, organizations, and specific communication techniques, such as mass media, personal communications, or public events. Effective health promotion programs will integrate messages through various channels. Culturally innovative assessment for channels would include determining preferences for newspapers, radio stations, and television stations and community events that the target audience regularly attends. Some examples of channel analysis for diabetes follow.

- A study of preferences for diet and nutrition information found that, in the United States, people preferred videos, whereas individuals in European countries favored leaflets and books.[22]
- Participatory action research among Aboriginal and Torres Strait Islander peoples in Australia regarding diabetic foot care found that, rather than usual text-oriented approaches, the preferred communication medium was a visual education package that included posters and flip charts.[23]
- In developing communication for a diabetes program in the western United States, focus groups among Hispanic and Polynesian communities provided guidance for preferred channels. The focus groups with Hispanics revealed that favored delivery channels were Spanish television and radio stations and newspapers, billboards in Hispanic neighborhoods, and large gatherings such as Cinco de Mayo celebrations. Similarly, focus groups in the Polynesian community indicated that large gatherings at churches were a preference. In contrast, Polynesian participants recommended newspapers, print material in Polynesian and English languages, and personal contacts.[24]

Market analysis. The purpose of market analysis is twofold. First, the data collected encompass identification of partners or allies and competitors at the individual and institutional levels.[25] Allies or partners are those people, organizations, or behaviors that can help achieve the program goals. Competitors are those agencies that may be providing similar services or other activities that are vying for individual audience members' time and attention.

For diabetes programs focused on self-management education, partners could include companies that can make available diabetes care supplies at a reduced cost or organizations that could provide a meeting place. Competitors can be anything that keeps individuals from attending a self-management class or performing self-management behaviors. A belief that daily blood glucose monitoring is not necessary or that appropriate diabetes care may conflict with one's ability to engage in social events[26] or the inconveniences of self-administering insulin before meals are examples of competition for self-management programs.

The second part of market analysis is establishing the marketing mix, also referred to as the "4 Ps": product, price, place, and promotion (Table 2). Social marketing–based programs aim to change behavior by establishing an

Table 2. The Marketing Mix (4 Ps) in Diabetes Programs

P	Definition	Application to Diabetes
Product	An idea, behavior, service, or tangible item that the target audience adopts	• Self-management class with family members • Performing regular blood glucose self-monitoring • Belief that diabetes management behaviors are compatible with social and cultural traditions
Price	What consumers have to give up to adopt the product; can be psychological or tangible	• Time to attend self-management programs • Established routines of large family meals late at night • Cost of supplies for blood glucose self-monitoring
Place	Where consumers will receive the product, engage in the behavior, or be exposed to communications	• Self-management program held at the community church • Community health center • Community cultural celebrations, such as Cinco de Mayo
Promotion	The means of communicating the message to the target audience	• Mass media on Hispanic television stations • Interpersonal communications with family members • Printed materials in Spanish

exchange between the consumers and the program developer based on the consumers' wants and needs.[27] In the exchange, consumers give up something of value and, in turn, receive something of equal or greater value. It is suggested that for behavior change to occur (for the exchange to take place), the social marketer must understand consumers' preferences regarding the 4 Ps.[28]

In culturally innovative diabetes programs, a female participant's contribution to the exchange could be the idea or belief that, traditionally, a woman's perceived obligation to provide for her family's food preferences is of great importance and takes precedence over her own health.[29] What the woman receives in return must be of equal or greater value, or the exchange will not take place. In this example, what is received is peace of mind that she is taking care of herself so that she will be around to care for and enjoy her family for many years to come.

In sum, formative research consists of audience, channel, and market analysis. This formative research provides the basis for the remainder of social marketing–based program development. Without adequately completing these steps, it is unlikely that strategies and messages will be developed that meet the needs and wants of the target audience.

Phase 5: Development

During the fifth phase, materials and interventions are developed in response to the formative research. Before full production of messages and materials and full-scale program implementation, key elements including methods, communications, and strategies are presented to members of the target audience to solicit feedback. Modifications are then made based on that feedback. Pretesting verifies that program developers have created strategies that are reflective of, and in response to, audience needs, wants, and expectations. Typical methods for pretesting include focus groups, intercept interviews, and surveys.

In diabetes planning, program developers could convene a focus group or conduct intercept surveys at a community health center, both with a representative sample of the target population. One purpose of pretesting is to review all program strategies and communications to ensure that they are responsive to cultural values, norms, and expectations. For example, pretesting could ensure that content of self-management classes for Latino individuals includes a section on social support, that words and phrases in a brochure accurately communicate ethnic beliefs, and that graphics on posters do not represent racial or ethnic stereotypes.

Phases 6 and 7: Implementation and Evaluation

The final two phases of social marketing are implementation and evaluation. Implementation is the activation of all strategies, tactics, and methods that were developed to achieve the designated goals and objectives. In diabetes programs, this could include activities such as the initiation of a mass-media awareness campaign, offering of small-group self-management classes, or creation of a community coalition to improve walking paths in a neighborhood.

Evaluation is crucial to determining program success. A process evaluation can assess the quality of the program by documenting the extent to which it was implemented as designed, whether it is serving the target population, whether it is operating as expected, and whether there are areas in need of improvement.

A key to the social marketing process is continually returning to the target audience to get its reaction and point of view regarding the program. Process evaluation measures for diabetes programs could be the number of self-management classes attended, radio or television spots aired on ethnic stations, or posters displayed in target audience neighborhoods. Of equal or greater importance is the evaluation of impacts or outcomes of the intervention. Outcome measures could include changes in overall health status, including diabetes status, or biomedical markers such as hemoglobin A_{1c} (A1C) results. Impact measures would include improvements in health behaviors such as food choices and physical activity.

IMPLICATIONS FOR DIABETES PRACTICE

Culturally innovative diabetes interventions can be effective.

- A 12-week culturally sensitive education program improved clinical outcomes, adherence to standards of care, and changes in culturally held beliefs.[30]

- A prospective, randomized, repeated-measures study found that a 1-year intervention of weekly session and support groups resulted in lower A1C results and fasting glucose levels and improved knowledge.[31]
- Among Surinam South Asian patients, educational interventions that were language-appropriate and included nutritional information based on South Asian cooking had a beneficial effect on metabolic control.[32]
- A culturally competent self-management intervention for rural African Americans was successful in improving fat-related dietary habits, A1C results, and fasting blood glucose values and reducing the frequency of acute care visits.[33] This longitudinal, quasi-experimental study incorporated classes, discussion groups, and follow-up, positioning the interventions as social events and inviting family members to attend.

The purposes and functions of social marketing and the movement to create culturally innovative interventions are consistent. For example, social marketing is intended to identify and respond to cultural mores, norms, and social intricacies within a target audience. The movement toward cultural competency is centered in the same principles (i.e., to create interventions that are consistent with shared language, beliefs, value systems, and lifestyles of a target audience while eliminating biases, prejudices, and discriminatory practices). Social marketing may be viewed most appropriately as the foundation on which culturally innovative interventions are developed. Used correctly, social marketing (including engaging the community and honoring community knowledge) is a systematic approach and invaluable resource to help better understand unique characteristics of a culture and respond in ways that are sensible, sensitive, and successful.

There are, however, certain challenges related to using a social marketing process that have implications for diabetes prevention and treatment. First, a social marketing framework, which is more bottom-up and less paternalistic, is more time- and resource-intensive. Formative research with the target audience and pretesting of interventions, materials, and messages requires spending adequate time with the consumers, collecting data, and analyzing that data. Second, conducting formative research does not guarantee that subsequent interventions will be developed in response to the data. One challenge facing health practitioners is making certain that program strategies and methods are reflective of consumer preferences. Third, although social marketing was introduced 30 years ago, its use by health practitioners is just gaining momentum.[34] The use of social marketing in the development of culturally innovative diabetes interventions will require practitioners to take steps to increase their knowledge and skill level in social marketing through continuing education or other training.

Despite these inherent challenges, social marketing has shown promise as an approach that responds to unique populations with targeted interventions. This level of sensitivity and attention to a target audience holds great promise for creating interventions that decrease the risks and complications of diabetes among ethnically diverse populations.

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