Corporate Social Marketing: Message Design to Recruit Program Participants

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Objective: To identify variables for a corporate social marketing (SM) health message based on the 4 *P*'s of SM in order to recruit future participants to an existing national, commercial, self-administered weight-loss program. *Method*: A systematically evaluated, author-developed, 310-response survey was administered to a random sample of 270 respondents. *Results*: A previously established research plan was used to empirically identify the audience segments and the "marketing mix" appropriate for the total sample and each segment. *Conclusions*: Tangible product, pertaining to the unique program features, should be emphasized rather than positive core product and outcome expectation related to use of the program.

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An estimated 97 million adults in the United States are overweight {body mass index = BMI = 25.0 – 29.9; BMI = weight (kg)/[height^2(m)^2]} or obese (BMI $\geq$30).[1] This estimate equates to 54.9% of American adults $\geq$20 years old being overweight or obese.[1] Overweight and obesity together are the second leading actual cause of preventable deaths in the United States.[1] Prevalence rates of overweight and obesity have shown a dramatic upward trend in the last decade.[2]

Medically and behaviorally sound commercial weight-loss programs are "corporate social marketing (*CSM*) programs" and part of the total arsenal of interventions that can be used to address obesity and overweight in America. Bloom, Hussein, and Szykman[3] described *CSM* as the following: (a) an investment in marketing to produce a profit that should not only benefit investors and employees, but also provide benefits to society; (b) normal marketing of products and services by many corporations; and (c) "programs that encourage people to eat healthy, exercise, engage in safe sex, drive carefully, and so forth can be considered (corporate) social marketing programs, in spite of the fact that they end up boosting the sales of a company's product."

Creating a marketing niche for a weight-loss program and attracting people who are more likely to be successful is a salient priority if the "battle of the bulge" is ever to be won. Consumer survey techniques, which can be used to assess salient variables to emphasize in a recruitment message, are advocated as an initial preproduction and prepromotion step in a marketing campaign.[4-6] Consumer surveys are one means to assess participants' beliefs and perceptions.[7]

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Social marketing (*SM*) principles, originated from commercial marketing, can be used as a means to organize surveys in order to develop a health communication message.[8-11] *SM* constructs include the 4 basic marketing-decision variables known as the marketing mix or the 4 *P*'s (*P*roduct, *P*romotion, *P*rice, and *P*lace) as well as audience segmentation.[12] According to Siegel and Doner,[13] *P*roduct is "the behavior, good, service, or program exchanged for a price;" *P*romotion is "a combination of advertising, media relations, promotional events, personal selling, and entertainment to communicate with target members about the product;" *P*rice is "the cost to the target audience member, in money, time, effort, lifestyle, or psyche of engaging in the behavior;" and *P*lace is "the outlet(s) through which products are available . . . " Marketing mix is "the group of variables that a marketer can alter to successfully sell a product." Audience segmentation is "dividing the population into groups with the goal of identifying groups whose members are similar to each other and distinct from other groups along dimensions that are meaningful in the context of the program." Division into groups as well as identification of the most salient variables should be empirically determined for replicability and can be based on demographic and/or psychographic variables.[8,9]

Each of the 4 *P*'s noted above contain subconstructs. The subconstructs presented below are defined and operationalized based on several sources.[8-11,14,15] *P*roduct can consist of *core* and *tangible* characteristics. The core product includes the desirable (positive) and undesirable (negative) effects of using the tangible product, as well as the consumers' imposed values and expectations of its use (in this particular case, participation in a weight-loss program). The tangible product is the physical good or service (which in the present study is the commercial weight-loss program and all of its components). *P*rice can include barriers or exchanges for participating that may sabotage success in a program such as the following: (a) contrary emotions or attitudes (psyche costs), (b) time commitment (time costs), (c) financial expense (monetary costs), and (d) contrary behaviors (opportunity costs). *P*lace can include accessible outlets that are the human (personal) or nonhuman

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(nonpersonal) communication media through which individuals learn about the product (commercial weight-loss program). Also an important consideration is to know whether the consumer finds these media to be believable or influential. *P*romotion can include incentives that entice and encourage individuals to participate in a program and meaningful communication themes, which are 2 promotional strategies that may make a program or product more attractive to the consumer.

The purpose of this study was to (a) introduce the term *CSM* to health education, to "fill a gap" in the research literature, and to provide a heuristic illustration of the application of SM principles to an existing program; (b) use a survey designed to assess the 4 *P*'s and a systematic "analysis plan" in order to identify empirically salient message components and to segment the audience; and (c) use the procedures in (a) to identify prepromotion and preproduction information to ultimately develop a message to recruit future customers to a national, commercial, self-administered, home-based weight-loss program who will be more likely to succeed in decreasing body mass index (BMI).

METHOD
Subjects
Subjects (n=504) were randomly sampled from the entire customer base (n=1,517) of a commercial weight-loss program. There were 368 (73%) of the sample who responded. Ninety-eight (26.6%) of the respondents were excluded from the analyses based on their response to the second question of the mail survey, which directed individuals who had purchased the program for someone else or had not used the program themselves to skip to the final (demographics) page of the questionnaire. The total number of

189

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respondents was 270. Results of Cohen's[16] power analyses for a sample size of 270 (and married/unmarried audience segments, n=195 and 75, respectively) yielded sufficient ($\geq$89%) power to detect a moderate correlation of 0.30 for 10 variables.

Men comprised 11.1% (n=30) and women, 88.9% (n=240) of the sample. The average age of the respondents was 52 years old (SD=11.5). Subjects were predominantly white (90.2%), and almost three quarters (72.2%) were married and 27.8% were unmarried (ie, 11.9% divorced/separated, 10.3% single, and 5.6% widowed). The percentage of subjects whose annual household income was above $50,000 (42.8%) was nearly equal to the subjects earning $25,000-$50,000 annually (42.4%), and the remainder earned <$25,000. Similarly, almost half (46.5%) of the respondents had a college or advanced degree, whereas the other half (53.5%) had some college education or less. The median body mass index [BMI= $wt(kg)/h^2(m)^2$] of the respondents prior to using the weight-loss program was 31.4, which is classified as obese (BMI $\geq$30).[1] The average change in body weight from enrollment into the program to the time of assessment was -4.7% (SD=6.2%) of initial body weight and this modest amount of body weight loss corresponds to what others have noted will produce positive health benefits.[17-23]

Procedure

Weight-loss program. The existing, national, commercial, home-based, self-administered intervention program is based on behavioral change components from social cognitive and learning theory and empirical research, nutritional practices using the food guide pyramid, and physical activity. The program is reputed to be medically sound.

Recruitment and survey administration. A committee on the use of human subjects approved the study. The weight-loss program consultants provided subject mailing information. Direct mail and several steps were used to recruit subjects. Recommendations by Dillman[24] and others[25] were used to achieve maximal responses. Subjects were asked to complete the survey and return it within 2 weeks for their free video incentive. A second mailing to nonrespondents followed. This envelope, identified by a "second notice" imprint, contained a similar cover letter and the original questionnaire. Implied consent to participate was given when the questionnaire was returned.

Survey development. The survey resulted from a 9-month collaborative effort between corporate marketers and the research team. The existing nature of the weight-loss program dictated that program characteristics be listed under the appropriate SM construct (rather than rely on consumer input or feedback about the makeup of the program).[26] Demographic questions were modeled after the participant profile questions used to evaluate one of the sponsor's previous weight-loss programs. Weight-loss history questions were adapted from the Stanford Heart Disease Prevention Program.[27,28] Exercise, eating behavior, and health-status improvement were adapted from Williams.[29]

Survey testing. All survey items were reviewed for simplicity and response bias, and for reading grade-level tests. Three experts in SM and 2 representatives of the weight-loss program's consulting team reviewed the survey for content validity. Items were excluded, revised, or relocated under a given SM construct following their collective feedback. Next, the questionnaire was pretested by administering it to participants (n=30) in a local commercial weight-loss program. Questions were reviewed again for readability, clarity, reading grade level, and content and evaluated for response bias. Test-retest reliability was measured by administering the questionnaire to the same group on 2 separate occasions 14 days apart. The Spearman correlation for the total scores of the 2 administrations was .84. The Flesch-Kincaid reading level for the final version of survey was 5th grade 6th month.

Survey content. The survey contained 23 groups of questions totaling 310 items. There were 112 items pertaining to weight-loss activities, programs, and the weight-loss program; 159 SM items dis-

cretely organized under each of the 4 SM constructs; 25 demographic items; and 14 psychographic and other related items. The survey took 20 minutes to complete (SD=5.0 minutes).

SM Measures

Product. Positive core product was measured using 14 items and 2 response sets for each item. For the first response set, the respondent indicated how important it was that particular outcomes occur by losing weight. The second response set required that the respondents indicate how confident they were that losing weight would result in the outcome expectancy specified. Both response sets were measured on an ordinal scale from 1 (*Not important/Not confident*) to 4 (*Very important/Very confident*). For example, for the item "Improve your health," respondents would indicate the following: (a) the importance of weight loss for improving their health, and (b) their confidence that losing weight would improve their health.

Negative core product was measured using 6 items, and the respondents indicated the extent to which a problem sabotaged (see example responses below) their ability to lose weight. Responses were measured on an ordinal scale from 1 (*Not sabotaged at all*) to 4 (*Completely sabotaged*). For example, for the item of "Lack of support from others," respondents would indicate the degree/extent that "not having others' support" had affected ability to lose weight.

Tangible product was measured with 25 items and 2 response sets for each item. For the first response set, respondents indicated how important a particular program component was to their weight loss. The second response set required that respondents indicate how often they used a particular component. Both response sets were measured on an ordinal scale from 1 (*Not important/Never*) to 4 (*Very important/All the time*). For example, for the item "Exercise daily," respondents indicated the importance of daily exercise on weight loss and how often they exercised.

Price. Six items were developed to measure psychological costs, 1 to measure time costs, 3 to measure monetary costs, and 4 to measure opportunity costs. Again, respondents indicated on a scale from 1 to 4 the extent to which a problem

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sabotaged their ability to lose weight. An example of a psychological cost was "Fear of not matching ideal body image after weight is lost;" a time cost was "Time required to complete program activities;" a monetary cost was "Cost of healthy food alternatives;" and an opportunity cost was "Deprived of favorite foods."

Place. Personal place was measured using 11 items, and nonpersonal place was measured with 8 items. To determine believable sources, respondents were asked to mark the sources they would typically consult for information about a weight-loss program. To determine the influentiality of different sources, respondents were asked, "If you heard about a weight loss program from each of these sources, how likely would you be to go on the program?" These items were measured on an ordinal scale from 1 (*Never*) to 5 (*Very likely*). For example, if respondents indicated that they heard about the program from a TV commercial or a doctor, would they believe that source, and if so, how likely would they be to enroll in the program?

Promotion. Promotion was measured using 7 items. Respondents indicated how likely they would be to participate if a weight-loss program advertised various incentives. Responses were measured on an ordinal scale from 1 (*No participation at all*) to 5 (*Very likely to participate*). For example, how likely would the person be to participate if a money-back guarantee was offered?

Item Scoring and Variable Construction

Items that required responses on 2 different scales (eg, an item might be evaluated on both "value" and "expectancy" scales) were weighted by multiplying the 2 item responses because the composite of 2 attributes provides predictive validity superior to that of a single attribute measure.[30] The product of the multiplication was rescaled to the original values of the associated item scales

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so that the adjectives from those scales could be applied and the values would be meaningful.

Respondents also ranked the top 3 items under each of the 4 *P*'s constructs. Three points were assigned to each item ranked first, 2 to items ranked second, and 1 to items ranked third. Ranked variables were considered most discerning because ranking that involves comparison and discrimination requires higher-order cognitive processes and reasoning, in comparison to simply rating a given item.[31]

Analytic Plan

Research design and statistical analyses. A cross-sectional survey design was selected. The 4 *P* items organized according to the SM constructs were the independent variables, and BMI was the dependent variable. The analytic plan utilized was based on and is identical to that reported by Black, Blue, and Coster[8] and Black, Blue, Kosmoski, and Coster.[9] Statistical procedures were used to decide on the variables of importance and to reduce the number of variables to a manageable number in order to develop "health messages" suitable for the total sample and the different segments of the target audience. Listwise factor analysis and Cronbach's alpha were used to ascertain if an item belonged under the assigned *P*. Backward elimination multiple regression was used to determine which of the *P*'s predicted change in BMI and the variable(s) to use for audience segmentation and the marketing mix. Kendall's coefficient of concordance was used to determine agreement among sets of rankings among the total sample and segments to ascertain whether the same items should be emphasized in the development of a health message.

RESULTS
Product
Positive core. Presented in Table 1 are statistical results used to identify the variables of importance under the 4 *P*'s

and each of their subconstructs. There were 7 items determined to be of greatest importance under positive core product based on the mathematical product of the importance to losing weight and the degree of confidence that would occur as a result of weight loss: "Gain energy," "Sense of accomplishment," "Flexibility in movement," "Prevent health risks," "Fit into clothes," "Improve health," and "Become more attractive."

Negative core. The 2 items of greatest importance under negative core product related to the extent that each would sabotage the person's ability to lose weight: "Difficulty changing eating habits" and "Difficulty increasing physical activity."

Tangible. The 4 items determined to be of greatest importance under tangible product were the following: "Back on track after relapse," "Watch food portions," "Fat intake $\leq$20%," and "Set reasonable weight loss goals."

Price
Psychological costs. There were 2 items of greatest importance under *P*rice—Psychological Costs related to the extent that each would sabotage the person's ability to lose weight: "Fear of slow/no results" and "Guilt for not following the program."

Time costs. There was only 1 item used to assess Price—Time Costs. This item was "Time required for program activities."

Monetary costs. There were 3 items of greatest importance under Price—Monetary Costs related to the extent that each would sabotage the person's ability to lose weight: "Healthy food costs," "Cost of the program," and "Exercise equipment/facilities costs."

Opportunity costs. There were 3 items of greatest importance under Price—Opportunity Costs related to the extent that each would sabotage the person's ability to lose weight: "Desire to eat high-fat foods," "Desire to eat sweet and sugary foods," and "Deprived of favorite foods."

Place
Personal. There were 4 items of greatest importance under personal place determined to be important based on whether respondents thought they would enroll in the program if they heard about a weight-loss program from each of the following

TABLE 1
Population Marketing Strategy Factor Analysis of Social Marketing Variables

Factor Construct/Variable	Median	Mode	Factor Loading	Comm-unality	Eigen Value	Percent Variance	α[a]
Product			**Positive Core**				
Gain energy	4	4	.778	.605	3.994	57.100	.873
Sense of accomplishment	3	4	.770	.592			
Gain flexibility in movement	3	4	.765	.585			
Prevent health risk	4	4	.760	.577			
Fit into clothes	4	4	.749	.562			
Improve health	4	4	.738	.544			
More attractive	3	4	.727	.529			
			Negative Core				
Difficulty changing eating habits	3	4	.811	.659	1.317	65.860	.479
Difficulty increasing physical activity	3	3	.811	.659			
			Tangible				
Back on track after relapse	3	3	.796	.634	2.344	58.590	.759
Watch food portions	3	3	.764	.583			
Fat intake $\leq 20\%$	3	3	.758	.575			
Set reasonable weight-loss goals	3	3	.742	.550			
Price			**Psychological**				
Fear of slow/no results	3	3	.796	.633	1.266	63.28	.419
Guilt for not following program	3	3	.796	.633			
			Time				
Time required for program activities	3	3					
			Monetary				
Costs of healthy foods	3	4	.904	.816	2.152	71.73	.801
Cost of program	3	4	.844	.711			
Exercise equipment/ facilities costs	3	4	.790	.625			
			Opportunity				
Desire to eat high-fat foods	3	3	.835	.697	1.789	58.640	.658
Desire to eat sweet and sugary foods	3	3	.747	.558			
Deprived of favorite foods	3	3	.731	.534			
Place			**Personal**				
Personal trainer	4	5	.867	.752	2.424	60.590	.779
Psychologist/psychiatrist	4	5	.811	.658			
Nutritionist	5	5	.725	.526			
Person who bought program	4	5	.698	.487			
Place			**Nonpersonal**				
Magazine articles	4	4	.813	.661	2.369	59.220	.765
Newspaper	3	3	.778	.605			
Books	4	4	.764	.584			
TV commercial	3	4	.720	.519			
Promotion			**Incentives**				
Discount on 1st month's program	4	4	.889	.791	1.582	79.110	.736
Low-fat cookbook	4	4	.889	.791			

Note. Medians and modes are based on social marketing variables with reference to change in body mass index [BMI = wt(kg)/h²(m)²]. Positive core product is the multiplication of "value" and "expectancy" where 1 is Very unimportant/Not confident, 2 is Somewhat important/Somewhat confident, 3 is Important/Confident, and 4 is Very important/Very confident. Negative core product is 1 Not at all, 2 A little, 3 Somewhat, and 4 Completely. Tangible product is the multiplication of "cognitive value" and "behavioral value" where 1 is Not important/Never, 2 is Somewhat important/Rarely, 3 is Important/Frequently, and 4 is Very important/All the time. *P*rice psychological, time, monetary, and opportunity is 1 Not at all, 2 A little, 3 Somewhat, and 4 Completely. *P*lace nonpersonal is 1 Never, 2 Not very, 3 Undecided, 4 Somewhat, and 5 Very. *P*romotion incentives is 5 Very influential, 4 Somewhat influential, 3 Undecided, 2 Not very influential, and 1 Not at all influential.

a Standardized Cronbach alpha coefficient.

TABLE 2
Marketing Mix Backward Elimination Regression Analysis for Social Marketing Variables Predicting Change in Body Mass Index [BMI=wt(kg)/h²(m)²] for the Total Sample and Segments

Variable	Standardized Regression Coefficients (β)		
	Total	Married	Unmarried
Initial Model			
Positive core product	-.27**	-.21*	-.12
Negative core product	-.09	-.11	-.14
Tangible product	.15	.51**	.45*
Exercise daily	.32**	a	a
Use privately	.16*	a	a
Unemotional eating	.04		
Program flexibility	.08		
Healthy weight loss	.09		
Price—Psychological	-.03	.04	-.14
Price—Time	.06	.05	.09
Price—Monetary	-.03	-.01	.05
Promotion Communication Themes	-.01	.02	.05
Place—Personal	.01	.01	.01
Place—Nonpersonal	.01	.01	.01
Marital status	-.26**		
Final Model			
Positive core product	-.25**	-.21**	
Tangible product	.53**	.53**	.35**
Marital status	-.15**		

Note. The constructs entered into the regression equations were the factors unique to the total sample and each of the two segments (ie, married and unmarried). R^2=.46, .42, and .48 for the final model for the total sample, married, and unmarried, respectively.

"a" means that items that contributed significantly individually in the total sample analysis were included in the tangible product construct for the married and unmarried segments and those without an "a" were not because they were nonsignificant.

*p<.05. **p<.01.

sources: "Personal trainer," "Psychologist/Psychiatrist," "Nutritionist," and "Person who bought the program."

Nonpersonal.   There were 4 items of greatest importance under nonpersonal place determined to be important based on whether respondents thought they would enroll in the program if they heard about a weight loss program from each of the following sources: "Magazine articles," "Newspaper," "Books," and "TV commercial."

Promotion
Incentives.   There were 2 items of greatest importance under *P*romotion—Incentives determined to be important based on whether respondents would be more likely to participate if a weight-loss program advertised any of the following incentives: "Discount on first month's program" and "Low-fat cookbook."

Marketing Mix and Target-Audience Marketing Strategy
Table 2 depicts the marketing mix results for the 4 *P*'s. The upper part of the Table presents initial model backward elimination multiple regression results, and the lower part of the Table presents the findings for the final regression model. The upper part of the Table identifies the potential SM variables of importance and

TABLE 3
Items Retained in Each Social Marketing Construct

Social Marketing Concept	Item Retained	Total	Married	Unmarried
Positive core product				
	Improve health	X	X	
	Prevent health risk	X	X	
	More attractive	X	X	
	Fit into clothes	X	X	
	Gain flexibility in movement	X	X	
	Gain energy	X	X	
	Sense of accomplishment	X	X	
Tangible product	Watch food portions	X	X	X
	Exercise daily	X	X	
	Set reasonable weight-loss goals	X		X
	Back on track after relapse	X	X	X
	Fat intake $\leq 20\%$	X	X	X
	Use privately	X		

variables on which to empirically segment the audience. Both parts of the Table show the results for the total sample and the segments.

Examination of initial regression coefficients for the total sample show the subconstructs of most importance in explaining change in BMI were positive core product and tangible product—"Exercise daily" and "Use privately." The variable to segment the total sample on was marital status. The only statistically significant demographic variable to segment the total sample on was marital status. None of the other variables (ie, gender, age, annual household income, number of persons or children in the household, educational level, or occupation, and time in the program) were found to be statistically significant for segmenting the audience.

The sign for the regression coefficient for positive core product is negative, which suggests the higher the expectations of what the product would provide, the less the change in BMI and conversely, the lower the expectations, the higher the change in BMI. The subconstructs of statistical importance in the initial model for married respondents were positive core and tangible product. The only subconstruct of statistical importance for the unmarried respondents was tangible product. The final model shows similar results for the total sample and the 2 segments.

Table 3 shows the items to consider in the SM mix for the total sample and for married and unmarried segments. Visual inspection and the Kendall coefficient of concordance indicate that there was good agreement (11 of 13 items, 85%, p=0.01) as to what to emphasize for the total sample and married segment in terms of items that are important for message tailoring. Agreement was much weaker (4 of 13 items, 31%, p=0.87) between the total sample and unmarried segment. Agreement between married and unmarried segments also was low (3 of 12 items, 25%, p=0.93), and Kendall's coefficient of concordance was nonsignificant (W=0.71, p>.05). Three items that were the same for the total sample and both of the segments were "Watch food portions," "Back on track after relapse," and "Fat intake $\leq 20\%$."

DISCUSSION
There are several distinct qualities of the present research. First, this study represents a formative initiative to introduce the term *corporate social marketing* to health education and to "fill a gap" in the research literature. Second, social marketing constructs were used to identify prepromotion and preproduction information in order to develop a message to recruit future customers to an existing national, commercial, self-administered

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weight-loss program who would be more likely to succeed on this program. Third, theory and SM principles were used to operationalize constructs by developing items to measure various subconstructs under each of the 4 *P*'s. Fourth, a formal research plan was used to make decisions empirically about constructs and subconstructs to emphasize in message development. Fifth, empirical analyses (rather than a logical or intuitive means based on supposition or chance) were used to decide whether and how to segment the target audience and if the same constructs and subconstructs should be emphasized for the total sample as for the segments. Last, SM principles were applied to an important public health priority, and any reputable, scientific, and credible means devoted to reduction of body weight, regardless of the size of the population served, is noteworthy because obesity is pandemic and plays a prominent role as a leading cause of preventable death in the United States.

One of the keys to enhancing participation in an existing weight-loss program and to targeting those most likely to be successful is to identify the unique motivating factors associated with success. It is important to identify the motivations for the total sample, but it is equally, if not more prudent, to identify "markers for success" for the segments. Identifying markers for segments that predict success may be a more efficient use of resources and may result in greater program acceptance, influence, customer satisfaction, potential profits, positive health changes, and a greater marketing share.

The *P* to emphasize for the total sample, if that were the desire, would be *P*roduct. *P*roduct seems more important to emphasize than *P*rice, *P*lace, and *P*romotion. The *P*roduct subconstructs to emphasize are positive core product and tangible

product, but tangible product would take precedence over positive core product because of its negative relationship with change in BMI and the magnitude of the regression coefficient for tangible product. The negative sign for positive core product indicates that those with greater *P*roduct expectations tended to have lower reductions in BMI. It seems plausible that those with the greatest reduction in BMI were not as concerned with *P*roduct variables compared to those who lost less weight. The variables to emphasize in a health message for recruitment related to the benefits of the tangible product are watching food portions, exercising daily, setting reasonable weight-loss goals, getting back on track after relapse, consuming less than or equal to 20% fat, and using the program privately. Most of these variables seem to reflect public health reasons for maintaining a healthy weight. The variables to focus on pertaining to positive core product are improvements in health, prevention of health risks, becoming more attractive as a result of weight loss, a greater ability to fit into clothes, greater flexibility in movement, more energy, and a sense of accomplishment.

The empirical evidence showed that for this program, the variable to segment on was marital status. This finding falls within the realm of theoretical and empirical plausibility. Research literature supports differential motivations of married and unmarried participants to lose weight.[32-35] The findings for married participants are very similar to those of the total sample (possibly because slightly less than three quarters of the sample were married). The primary *P* to emphasize for married participants is *P*roduct (and to de-emphasize are *P*rice, *P*lace, and *P*romotion). The subconstruct to emphasize also would be the same as for the total sample. The only "P" items not to emphasize in targeting married participants are 2 items related to the benefits of the tangible product: setting reasonable weight-loss goals and using the program privately.

The scenario for unmarried participants is quite different. More than likely, unmarried participants would not be the focus of an advertising campaign in this instance because of the number of respondents who were married and the magnitude of the regression coefficient

for tangible product, which was smaller than for the total sample and the married participants, indicating less capability of predicting success. The emphasis on *P*roduct would be the same as for the total sample and married participants. The only subconstruct of importance was tangible product. The particular items to emphasize include watching food portions, setting reasonable weight-loss goals, getting back on track after relapse, and consuming less than or equal to 20% fat.

A surprising finding was that primary emphasis should be only on 1 of the 4 *P*'s, *P*roduct. It seems unusual that *P*romotion would not have been a construct of statistical significance because the entrepreneur of the program is a well-known and celebrity physician who provides medical advice routinely on national television and has written several books. The items pertaining directly to the entrepreneur's status did not appear as ones initially to be of importance under the *P*romotion construct. *P*rice and *P*lace also were not noted to be statistically important. The findings suggest that the most prudent use of resources would be to focus on the *P*roduct, and this is true whether it is for the total sample or segments. Also, the primary emphasis should be on the benefits of the program and its unique features designed to help customers be successful in reducing body weight. The primary difference between the unmarried participants versus the total sample and married participants is that unmarried participants are exclusively focused on the unique features of the program for achieving weight-loss success.

There are potential limitations to the study that should be considered when drawing conclusions. The findings are based on a customer survey and self-report data. Self-report data may be subject to error due to memory and recall bias. Responses to items may have been biased by a desire to "please" and not to undermine the entrepreneur's credibility and reputation. However, the data pertaining to *P*romotion above and initial efforts to validate the survey do not support this hypothesis. Based on the relationship of satisfaction, perceived performance, and expectations of a product as described by Kotler,[36] customers may tend to be critical and have higher expectations of commercial products versus those

> ## *A surprising finding was that primary emphasis should be only on 1 of the 4 P's, Product.*

offered for free or reduced cost. Another limitation is that respondents are unrepresentative of the adult American population in that income and education levels were higher. This may not be as much of a limitation from a corporate social marketing perspective as an opportunity to develop a marketing niche and a greater marketing share and to recruit a certain segment of the population of weight reducers who potentially would do well with this particular kind of program.

There are several venues for future research. The first consideration is to add items to subconstructs in which there is only one item such as *P*rice—time costs and refine the items under *P*rice—psychological costs and negative core product to increase Cronbach alpha values to criterion. In the present study, these items were entered into the regression analyses anyway, so as not to disregard any potential contribution, but the subconstructs may have been more strongly represented. The second consideration is to adapt the survey for use with customers who "attend" programs rather than those who participate in a home-based program to ascertain whether the SM constructs, marketing mix, and audience segmentations would differ dramatically. A third possibility is to investigate positive core product with respect to the negative relationship of the subconstruct with BMI. A fourth prospect is to investigate SM principles and changes in health parameters as a result of weight loss. In general, there needs to be more research in this area if there is hope of reversing the upward trends in overweight and obesity and attracting participants to weight reduction programs.

In conclusion, this is a formative study designed to empirically identify information to emphasize in developing messages for recruitment to a national, commercial, self-administered, home-study weight-loss program. Based on the present

findings, it is clear that to formulate messages, it is important to rely on empirical procedures driven by *SM* principles in order to increase replicability, achieve parsimonious results, and to avoid drawing false or inappropriate conclusions. The data also indicate for this study sample that the emphasis should be exclusively on tangible product and the unique features of the program rather than emphasize the positive outcomes of using the program.

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