

Exploring the Social and Business Returns of a Corporate Oral Health Initiative Aimed at Disadvantaged Hispanic Families

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This research investigates the impact of a corporate oral health initiative aimed at disadvantaged Hispanic families, especially the children. We find that the initiative promotes oral health behaviors only among less acculturated families. Moreover, it does so by both enhancing participant children's beliefs about the physical and psychosocial benefits of oral health behaviors and strengthening the link between the psychosocial beliefs and behaviors. We also find that when parents of the participant children believe that the program has been beneficial to them, they are willing to engage in reciprocal behaviors, such as purchasing and supporting the corporate sponsor's products.

There is little doubt that the adoption of health behaviors can transform and save lives. Today, many companies/brands¹ are leveraging their unique capabilities (e.g., products, research and development, distribution channels, marketing expertise) to encourage the adoption of desirable health behaviors in domains relevant to their businesses and markets (Porter and Kramer 2006). For instance, General Mills has partnered with various organizations, including the President's Council on Physical Fitness and Sports, to help hundreds of thousands of young people nationwide adopt a balanced diet and a physically active lifestyle (General Mills 2007).

Despite the rapid rise in such corporate social marketing

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¹"Company" and "brand" are used interchangeably in this article to reflect the range of company-brand relationships (i.e., from corporate brands to stand-alone/individual brands) in the marketplace.

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(CSM) initiatives (Kotler and Lee 2005), corporate social responsibility (CSR) research has focused almost exclusively on the business returns (e.g., positive changes in consumers' attitudes, purchases, and word-of-mouth behaviors) of such activities rather than on the social returns (i.e., the actual adoption of the intended health behaviors by the target group; Bhattacharya and Sen 2004). This has led to a concerted call (Gourville and Rangan 2004) for insights into when, how, and to what extent "the intended beneficiaries and institutions central to a healthy society indeed benefit from [such] corporate actions" (Margolis and Walsh 2003, 283). As well, a clear understanding of the purportedly positive relationship between such benefits and the business returns of CSM initiatives (Kotler and Lee 2005) remains elusive. Such an understanding would help companies better implement their corporate health initiatives and better assess their total value (i.e., both social and business returns; Gourville and Rangan 2004).

This research focuses both on the social and business returns of a corporate health initiative, in terms of the target consumers' reactions in the health domain as well as toward the corporate sponsor. Our insights come from two studies, one qualitative and one quantitative, involving a key target group of a corporate oral health initiative: disadvantaged Hispanic families with children between 6 and 15 years of age. We assess the program's social returns by examining the extent to which and why it increases the desired oral care behaviors within the target group. We also examine the mechanism linking these social returns to the target group's

pro-company behaviors, such as product purchase (i.e., business returns).

This research provides three insights into consumer behavior in the health domain. First, it documents, in terms of actual behavioral changes, the social outcomes of a corporate health initiative. Second, it demonstrates, for the first time, the role of such interventions in strengthening the beliefs-behavior link, at least for psychosocial outcome beliefs. Third, and most importantly, it highlights the role of acculturation as a key sociocultural moderator of consumer reactions to health initiatives targeted at disadvantaged immigrant groups. This moderation finding helps build the necessary contingencies into extant, primarily main-effect, models of health behavior (Salovey, Rothman, and Rodin 1998) and helps marketers design and implement such health initiatives in an increasingly dynamic and diverse ethnic/cultural landscape (Smith, Orleans, and Jenkins 2004). In addition, our research contributes to the CSR literature by providing evidence of how precisely the social and business objectives of CSM programs can converge, benefiting both the cause beneficiaries and the company (Gourville and Rangan 2004; Kotler and Lee 2005).

The rest of this article is organized as follows. We begin by describing the empirical context of our research. Then we report two studies—a qualitative one that sets up predictions about the outcomes of a corporate oral health initiative and a quantitative field study to test those predictions. We end with a discussion of our findings for theory, practice, and consumer welfare.

EMPIRICAL CONTEXT: A CORPORATE ORAL HEALTH PROGRAM

According to *Oral Health in America: A Report of the Surgeon General* (U.S. Department of Health and Human Services 2000), there is a “silent epidemic” of dental and oral diseases in disadvantaged communities, particularly among children of minority racial/ethnic groups (Lewit and Kerrebrock 1998). Oral diseases cause significant pain, poor appearance, and valuable time lost from school (e.g., more than 51 million school hours are lost every year because of illnesses related to oral health; Centers for Disease Control and Prevention 2008)—problems that can greatly diminish a child’s self-image, welfare, and chances of future success.

To help address this oral health problem, a major brand of oral care products launched a national outreach program in the year 2000 that, in partnership with the Boys and Girls Club of America (BGCA), the American Dental Association, and dental schools across the country, provides oral health education and dental care tools and services to children and their families in economically disadvantaged communities nationwide (Kotler and Lee 2004). A key element of the health initiative is a \$4 million per year oral care program created in partnership with BGCA, a national network of 3,300 neighborhood-based recreational/educational facilities (called “clubs”) for economically disadvantaged children.

The oral health program consists of several components. First, it has an age-appropriate oral hygiene curriculum executed by club staff, in which participants can learn about proper oral health through videos, audiotapes, a Web site, and interactive lesson plans. All children who go through the curriculum receive oral health tools (e.g., toothbrushes, toothpaste, and dental floss) and parent brochures to take home. The curriculum has three modules to meet the specific developmental needs of different age groups: (1) 6–9 years (eight 1-hour sessions), (2) 9–12 years (eight 1-hour sessions), and (3) 13–15 years (four 1-hour sessions). Children typically go through the entire curriculum in 1–2 months depending on the number of sessions per week. Second, BGCA clubs countrywide participate every October in a Smile for Life Day, featuring activities such as oral health contests with Healthy Smile prizes and free dental screenings. Third, nine BGCA clubs have fully equipped dental clinics, called Smile Shoppes, where local dental professionals provide members with low-cost oral care, including screening and treatment. (Please contact authors for more details about the program.)

QUALITATIVE STUDY

Method

Design. To understand the participants’ oral care beliefs, behaviors, and related issues, we conducted three focus groups, each in a different urban area with a large Hispanic population, with the parents of Hispanic children who had participated in the oral health initiative. We focused on parents for three related reasons. First, this was consistent with our conceptualization of the cause beneficiary as the family rather than just the children (Lackman and Lanassa 1993). This is because while the actual oral health changes are restricted to the children, the broader benefits (e.g., reduced missed school days and happier, more successful children) of the program accrue to the entire family, or at least to those close to the children. At the same time, the program’s success rests on the physical and psychological participation of not just the children but the parents as well (e.g., some children cannot even enroll in the program without parental assistance). In that sense, engagement in program participation, like many more-conventional consumption activities, is on a group, not an individual, level.

Second, it allowed us to circumvent the problems associated with eliciting meaningful responses from young children (Graue and Walsh 1998), particularly since the parents, as the primary caretakers, are well equipped to talk about their children’s oral health beliefs and behaviors (Serketich and Dumas 1996). Third, parents are the most appropriate respondents for the final segment of the focus group, which dealt with reciprocal behaviors toward the corporate sponsor. As the primary purchasers of oral care products for themselves and their children, the parents are in the best position to reciprocate toward the brand, at least in the immediate term.

We chose to focus on Hispanics for three reasons. First,

Hispanics, along with African Americans, are the primary targets of the oral health initiative. More generally, because Hispanics are the fastest-growing minority group in the United States and bear a disproportionate burden of oral diseases (Ramos-Gomez et al. 2005), they are a particularly relevant test population for research on improving the welfare of disadvantaged consumer groups. Third, by focusing on just one group, we minimized variations in ethnic, demographic, and socioeconomic characteristics that might compromise the meaningfulness of the findings (Greenbaum 1998).

Participants were screened on the following criteria: (1) self-identified Hispanic race, (2) 18–45 years old, (3) with child(ren) who have either completed or are close to completing the oral care program, and (4) the primary caretaker of the child(ren) and the decision maker for their out-of-school activities. Each focus group had eight to 10 participants, each of whom was paid \$100 for his or her participation. All except one participant were women.

Procedure. The focus groups were conducted in Spanish by a Hispanic moderator from a qualitative research company that focuses on Hispanic communities. The moderator began with general questions about the level, role, and importance of oral and dental hygiene in the participant families. Participants were then probed about their conversations with their children about oral care as well as their children's oral care behaviors. This was followed by questions about the oral care program and its perceived impact. Finally, participants were probed about their thoughts and feelings as well as reciprocal behaviors toward the corporate sponsor. All the focus group discussions were videotaped, translated into English, and transcribed.

We used QSR NVIVO, a leading software for qualitative data analysis, to code, manage, and explore the transcripts. Analyses followed an iterative approach, traveling back and forth between the data and the emerging theory (Eisenhardt 1989). We judged the trustworthiness of our findings by triangulation of multiple quotes from participants in different focus groups and interpreted these through the lens of relevant health behavior literatures.

Findings

Outcome Beliefs and Oral Care Behavior. A key theme to emerge from the discussions centered on the salient beliefs that program participants had about both the physical (i.e., health-related) and psychosocial outcomes of proper oral care behavior. Specifically, numerous participants noted that proper oral care can prevent cavities and gum diseases as well as promote overall health (i.e., physical outcome beliefs). At the same time, participants also discussed how oral hygiene ultimately contributes to a desirable appearance, an active social life, and self-confidence (i.e., psychosocial outcome beliefs). Illustrative quotes include “Dental hygiene is important because it fights cavities” and “The first thing people see is your smile. You don't want to have dirty teeth, and when you are close to people your breath

needs to be clean.” A related theme dealt with participants' observations that their children had, over time, adopted healthier oral care behaviors. For instance, “I noticed a lot of change in my children, in the sense that I don't have to tell them to brush their teeth anymore. And besides, they have learned how to floss really well.”

It is worth noting that these findings about the two types of outcome beliefs and their links to behavior are consistent with the expectancy-value type models of health behaviors (e.g., subjective utility theory [Weinstein 1993] and the theory of reasoned action [Ajzen and Fishbein 1980; Salovey et al. 1998]), which conceptualize behavior as a combination of the beliefs about the likelihood of behavior-induced outcomes and the desirability of these outcomes.

Interestingly, the focus group discussions suggest that it is the program's overall theme of “smile” (i.e., the psychosocial benefits of oral hygiene) that is the primary driver of the children's adoption of oral care behaviors. For instance, several participants talked about the celebrities who are part of the oral care program. As illustrated in the following quote, these celebrities embody the psychosocial benefits of oral health and exert a powerful influence on the children: “Vanessa [and Brandi] came in and talked about oral hygiene. They idolize Brandi; they want to be like her or Vanessa. These are teenagers. . . . They look at Brandi and Vanessa, and they want that smile, so they brush their teeth more often and make sure they have a nice, beautiful smile. My daughter too, she is 12, and she brushes her teeth constantly; she wants to look pretty.”

This insight that psychosocial beliefs, more than the physical beliefs, drive children's oral care behaviors is consistent with prior research that underscores the primacy of psychosocial benefits in guiding the adoption of certain health behaviors, particularly among children and adolescents (Pechmann et al. 2003). While such consumers often feel invulnerable to health risks (Weinstein 1984; Weisenberg, Kegeles, and Lund 1980), they are extremely sensitive to their social context (Graham, Marks, and Hansen 1991). Thus, they are more persuaded by the social approval and self-esteem benefits of health behaviors rather than by the health benefits (Pechmann et al. 2003). This asymmetry is even more likely in the case of oral care behaviors since teeth are a social body part tied to public impressions and self-esteem.

Moderating Role of Acculturation. Our participants were mostly first-generation Hispanic immigrants who varied in their level of acculturation or the extent to which they knew about and had adopted the norms and values of their host culture (i.e., the United States). Several participants commented on the lack of oral care education or even emphasis in their home countries, particularly in contrast to the United States. More interestingly, we observed that both favorable physical and psychosocial outcome beliefs and the desired oral care behaviors were more common among the less acculturated participants. For instance, quotes such as the following came predominantly from participants who had immigrated to the United States relatively recently: “It

[dental hygiene] keeps your teeth free of cavities and takes care of your gums” and “It is very important because your smile is what represents you, and also because these are the teeth you are going to have for the rest of your life.”

Evidence of this moderating role of acculturation makes sense in light of research that suggests that less acculturated participants are more likely to adopt beliefs and behaviors that help them adapt to their host country (Padilla and Perez 2003). In particular, since such participants are more likely to face social isolation, discrimination, and prejudice (Rogler, Cortes, and Malgady 1991), they are keener to adopt beliefs and behaviors that they feel are endorsed by their host country (e.g., a corporate oral care program) and that will help them understand and adapt to its cultural parameters. In contrast, because more acculturated participants are better established in the economic and social systems of their host country, they are, by definition, less motivated to adopt acculturating health beliefs and behaviors such as the focal ones. At the same time, they are more aware of the constraints on social mobility imposed by their membership in an ethnic minority group (Lafromboise, Coleman, and Gerton 1993), making them less motivated to change these beliefs and behaviors. In sum, we expect that:

- H1:** The increase in (a) the favorability of physical outcome beliefs, (b) the favorability of psychosocial outcome beliefs, and (c) oral care behavior due to program participation is greater among children from less acculturated families than those from more acculturated families.

More specifically, we found the aforementioned dominance of psychosocial beliefs over physical beliefs in driving the adoption of oral care behaviors primarily among the less rather than the more acculturated participants. For instance, a respondent who had been in the United States for just one year commented on the importance of oral hygiene to social confidence: “The first thing that came to my mind about dental hygiene is ‘smile.’ If, since they are young, they don’t have that health that we are all talking about, they start getting teased and it becomes harder and harder to smile. I think we have to teach them when they are very young.”

This finding is consistent with theories of information accessibility, which suggest that more-accessible beliefs are more likely to guide behavior (Fazio 1986; Feldman and Lynch 1988). The accessibility of a belief, in turn, hinges on the extent to which it is based on direct experience (Fazio 1986) and, more broadly, on its relevance or importance (Bizer and Krosnick 2001). In general, participants have more direct experience with the psychosocial outcomes of the promoted oral care behaviors because these are not only integral to the program’s overall theme but are also more evident in big smiles, white teeth, and clean breath than are the physical outcomes (e.g., strong teeth, healthy gums). More specifically, in their efforts to successfully integrate into the social fabric of their host country, less acculturated participants care more about the psychosocial outcomes of proper oral care than about its often less discernible physical

outcomes. As a result, the psychosocial outcomes are not only more top of mind or salient for such participants but are also more diagnostic (Feldman and Lynch 1988) to their decision to adopt the appropriate oral care behaviors, strengthening the belief-behavior link. In sum:

- H2:** The increase in the strength of the link between psychosocial outcome beliefs and oral care behavior due to program participation is greater among children from less acculturated families than those from more acculturated families.

Reciprocal Actions. A final interesting finding from our focus groups is that our respondents expressed a willingness to support the initiative. Specifically, even without prompting, they mentioned purchasing and supporting the corporate sponsor’s brands as an important way to give back to the program and help the community. In a respondent’s words, “It motivates you to buy their products because they are helping your community. So indirectly you are contributing to the community by buying their products and having them give back to the community.”

Indeed, this sense of reciprocity is one of the most powerful norms governing social relationships across all cultures (Cialdini and Trost 1998). This norm evokes obligation toward others on the basis of their past behavior; people should return good for good, in proportion to what they receive (Gouldner 1960). In other words, reciprocity is triggered when there is advantageous inequity in social relationships; people reciprocate to restore equity (Adam 1963). Therefore, the extent of individuals’ reciprocal actions toward others tends to match the benefits they receive from these others (Depaulo, Brittingham, and Kaiser 1983). In our context, the parents’ reciprocal actions are likely to be proportionate to their perceptions of the program’s impact: those parents who perceive the program to have helped their children and family to a greater extent will be more likely to reciprocate.

- H3:** Participant parents’ reciprocal intentions will be positively associated with their perceived impact of the initiative.

Next, we test our hypotheses through a survey about the same corporate oral health initiative.

QUANTITATIVE STUDY

Method

Design. Given that the health initiative was already in place at the time of this study, we used a quasi-experimental design: posttest only, with a nonequivalent control group (Shadish, Cook, and Campbell 2002). As in the focus groups, the experimental group consisted of Hispanic parents whose children had either completed or were close to completing the oral care program (i.e., the participants). The control group consisted of Hispanic parents from the same neighborhoods but whose children had not participated (i.e., none of the children had ever participated) in the pro-

TABLE 1
SAMPLE CHARACTERISTICS

	Percentage of participants (<i>n</i> = 48)	Percentage of nonparticipants (<i>n</i> = 277)
Marital status:		
Single	22.9	9.2
Married or living together	64.6	79.4
Widowed, divorced, or separated	12.5	11.4
Employment status:		
Work full-time	54.2	41.0
Work part-time	8.3	16.1
Unemployed or student	37.5	42.9
Education:		
Some or finished grade school	21.3	23.8
Some or finished high school	68.1	45.8
Some college or higher	10.6	30.4
Household income:		
Under \$30,000	76.7	52.6
\$30,000–\$49,999	18.7	27.2
\$50,000 and over	4.6	20.2

gram (i.e., the nonparticipants). Notably, since the field setting of our experiment did not allow for randomization, it is possible that the experimental and control group are not equivalent, an issue we attempt to address in our analysis. We employed a telephone survey administered by a marketing research company.

Respondents. We recruited the participant group from six urban areas where the program was active, using the same criteria used to recruit the focus group participants. The nonprofit organization (BGCA) provided telephone contact information for 345 Hispanic families that satisfied our recruitment criteria. Care was taken to exclude all focus group participants. To motivate participation, respondents in each urban area who completed the survey were entered into two random drawings for \$100. Yet, even after repeated contact attempts, we were unable to reach a majority of this sample. Reasons for this included invalid phone numbers, busy phone lines, calls that were unanswered or forwarded to voice mail, and respondents' unavailability. Notably, our experience is similar to that of prior research, which documents the difficulties in surveying ethnic minority groups, especially those with low literacy and low economic status, such as our participant group (Word 1997; Zaslavsky, Zaboriski, and Cleary 2002).

We were ultimately able to reach 140 participants, yielding 53 complete surveys. Given the low response rate (15%), we compared the early respondents (*n* = 42) to the late ones (i.e., those who were reached after repeated contact attempts; *n* = 11). The two groups share very similar sociodemographic profiles as well as similar levels of outcome beliefs and oral care behavior, allaying at least somewhat our concerns about nonresponse bias.

The nonparticipants were recruited from the same zip codes as the participants. One thousand families were reached using lists drawn from the marketing research com-

pany's databases. We obtained 305 complete surveys (i.e., a 30.5% response rate). Prior to the analyses, we deleted all observations with missing values on the key measures, resulting in a total sample size of 325: 48 participants and 277 nonparticipants. Table 1 provides the demographic characteristics of these two groups. Compared with the nonparticipants, the participants are more likely to be single, work full-time, and have lower levels of education and household income. To control for these differences, we included these variables as covariates in our analysis.

Measures. Our measures were mostly derived from our qualitative findings (see the appendix for details, including descriptive statistics). All measures except for oral care behavior and acculturation were measured using five-point (1 = strongly disagree; 5 = strongly agree) scales. In line with our conceptualization and as in the focus groups, the children's beliefs, both physical (two items) and psychosocial (four items), were obtained from the parents. The validity of doing so is supported not only by prior research on children (Graue and Walsh 1998; Serketich and Dumas 1996) but also by evidence in the focus groups that the parents, as primary caretakers, were knowledgeable about their children's oral care beliefs and behaviors. Oral care behavior was assessed in terms of the frequency of brushing, frequency of flossing, and frequency of routine dental check-ups. Perceived impact of the initiative was captured by two items, and the reciprocal intention measure comprised three items. Finally, in line with prior research (Berry 1990; Escobar and Vega 2000), we measured the degree of acculturation in terms of the number of years the respondent families had lived in the United States.

All measures were part of a longer phone survey that was administered in either Spanish or English, depending on respondent preference. The survey was formulated in English, translated to Spanish, and translated back to English

prior to administration, to ensure the integrity of the measures. Respondents were first asked about their children's oral care behaviors, followed by their children's outcome beliefs. The next set of questions were about the health initiative. We first assessed their reciprocal intention, followed by their perceived impact of the initiative. Nonparticipants were not asked about perceived impact of the initiative, and their reciprocal intention was measured after assessing their awareness of the initiative; in case they were not aware, a brief description of the initiative was provided. Finally, the demographic and socioeconomic information, including the degree of acculturation, were elicited.

Results

To create a composite measure of oral care behavior, we summed respondents' scores on frequency of brushing, flossing, and dental checkups. The resultant scale ranged from 0 to 3. For ease of interpretation, both participants and nonparticipants were divided into low (0) and high (1) acculturation groups around the respective median values for this measure (participants = 13 years, nonparticipants = 21 years). Using acculturation as a continuous variable provided comparable results. We also dummy coded the relevant demographic variables (marital status = 1 if "married or living together," or else marital status = 0; employment status = 1 if "work full-time or part-time," or else employment status = 0; income group = 1 if total yearly household income is "over \$30,000," or else income group = 0; educational status = 1 if have "some college education or higher," or else education status = 0). Because marital and employment status were nonsignificant in all analyses, only income and education were retained as covariates. We use ANOVA and multiple regression analyses to test our hypotheses. To enhance the interpretation of the model coefficients, we mean-centered the continuous independent variables in the regression analysis (Aiken and West 1991).

Hypothesis Tests. To test hypothesis 1, we ran ANOVAs with physical outcome beliefs, psychosocial outcome beliefs, and oral care behavior as the dependent variables, initiative participation and acculturation as the independent variables, and education and income as covariates. Table 2 provides the means for a number of variables of interest broken out by the four levels of the initiative participation \times acculturation interaction.

As expected, there was a significant initiative participation \times acculturation interaction for physical outcome beliefs ($F(1, 319) = 4.26, p < .05$), psychosocial outcome beliefs ($F(1, 319) = 3.58, p < .05$), and oral care behavior ($F(1, 319) = 4.35, p < .05$). Specifically, initiative participation enhances physical outcome beliefs ($M_{\text{nonpart.}} = 2.59, M_{\text{part.}} = 3.23; F(1, 162) = 5.67, p < .05$), psychosocial outcome beliefs ($M_{\text{nonpart.}} = 3.57, M_{\text{part.}} = 4.22; F(1, 162) = 10.29, p < .01$), and oral care behavior ($M_{\text{nonpart.}} = 1.19, M_{\text{part.}} = 1.91; F(1, 162) = 19.60, p < .01$) when acculturation is low, but initiative participation does not affect these

measures when acculturation is high (physical outcome beliefs: $M_{\text{nonpart.}} = 3.22, M_{\text{part.}} = 2.71; F(1, 159) = .31, \text{NS}$; psychosocial outcome beliefs: $M_{\text{nonpart.}} = 3.55, M_{\text{part.}} = 3.81; F(1, 159) = .41, \text{NS}$; oral care behavior: $M_{\text{nonpart.}} = 1.11, M_{\text{part.}} = 1.38; F(1, 159) = 1.99, \text{NS}$).

To test hypothesis 2, we ran the following regression model:

$$\begin{aligned} \text{oral care behavior} = & \text{intercept} \\ & + \beta_1 \text{initiative participation} \\ & + \beta_2 \text{acculturation} + \beta_3 \text{physical outcome beliefs} \\ & + \beta_4 \text{psychosocial outcome beliefs} \\ & + \beta_5 \text{initiative participation} \times \text{acculturation} \\ & + \beta_6 \text{initiative participation} \\ & \quad \times \text{physical outcome beliefs} \\ & + \beta_7 \text{initiative participation} \\ & \quad \times \text{psychosocial outcome beliefs} \\ & + \beta_8 \text{acculturation} \times \text{physical outcome beliefs} \\ & + \beta_9 \text{acculturation} \\ & \quad \times \text{psychosocial outcome beliefs} \\ & + \beta_{10} \text{initiative participation} \times \text{acculturation} \\ & \quad \times \text{physical outcome beliefs} \\ & + \beta_{11} \text{initiative participation} \times \text{acculturation} \\ & \quad \times \text{psychosocial outcome beliefs} \\ & + \beta_{12} \text{income} + \beta_{13} \text{education} + \varepsilon . \end{aligned}$$

Since initiative participation is coded as 0 (nonparticipant children) or 1 (participant children) and acculturation is coded as 0 (low) or 1 (high), the relationship between psychosocial outcome beliefs (physical outcome beliefs) and oral care behavior is estimated in the model as follows: $\beta_4(\beta_3)$ for less acculturated nonparticipants, $\beta_4 + \beta_7(\beta_3 + \beta_6)$ for less acculturated participants, $\beta_4 + \beta_9(\beta_3 + \beta_8)$ for more acculturated nonparticipants, and finally, $\beta_4 + \beta_7 + \beta_9 + \beta_{11}(\beta_3 + \beta_6 + \beta_8 + \beta_{10})$ for more acculturated participants. As well, the coefficient of the initiative participation \times acculturation \times psychosocial (physical) outcome beliefs interaction, $\beta_{11}(\beta_{10})$, indicates whether or not the effect of initiative participation on the psychosocial (physical) outcome beliefs–oral care behavior relationship differs across acculturation levels.

The results (table 3) indicate that, as expected, the positive effect of initiative participation on the psychosocial outcome beliefs–oral care behavior relationship is stronger when acculturation is low than when acculturation is high ($b_{11} = -.88, t = -2.87, p < .01$). More specifically, when acculturation is low, initiative participation results in a stronger

TABLE 2

SUMMARY STATISTICS FOR PROGRAM PARTICIPANTS AND NONPARTICIPANTS: GROUP MEANS (STANDARD DEVIATIONS)

Variable	Participants			Nonparticipants		
	Group mean (n = 48)	Low acculturation (n = 24)	High acculturation (n = 24)	Group mean (n = 277)	Low acculturation (n = 140)	High acculturation (n = 137)
Physical beliefs	2.97 (.51)	3.23 (1.54)	2.71 (1.46)	2.89 (1.45)	2.59 (1.44)	3.22 (1.39)
Psychosocial beliefs	4.02 (.85)	4.22 (.67)	3.81 (.90)	3.56 (.87)	3.57 (.94)	3.55 (.80)
Oral care behavior	1.65 (.84)	1.91 (.83)	1.38 (.77)	1.15 (.72)	1.19 (.73)	1.11 (.72)
Perceived impact of initiative	4.47 (.58)	4.54 (.57)	4.40 (.59)
Reciprocal intention	4.28 (.62)	4.35 (.71)	4.21 (.54)	3.77 (.80)	3.95 (.81)	3.58 (.75)

psychosocial outcome beliefs–oral care behavior relationship (nonparticipant children: $b_4 = .01, t = .14, NS$; participant children: $b_4 + b_7 = .01 + .81 = .82, t = 3.56, p < .01$); when acculturation is high, initiative participation does not enhance the strength of the psychosocial outcome beliefs–oral care behavior relationship (nonparticipant children: $b_4 + b_9 = .01 + .12 = .13, t = 1.60, NS$; participant children: $b_4 + b_7 + b_9 + b_{11} = .01 + .81 + .12 + (-.88) = .06, t = .34, NS$).

Interestingly, the effect of initiative participation on the physical outcome beliefs–oral care behavior relationship, on the other hand, does not differ across acculturation levels ($b_{10} = -.01, t = -.08, NS$). More specifically, initiative participation does not result in a stronger physical outcome beliefs–oral care behavior relationship when acculturation is low (nonparticipant children: $b_3 = .02, t = .49, NS$; participant children: $b_3 + b_6 = .02 + .13 = .15, t = 1.52, NS$) or high (nonparticipant children: $b_3 + b_8 = .02 + (-.07) = -.05, t = -.94, NS$; participant

children: $b_3 + b_6 + b_8 + b_{10} = .02 + .13 + (-.07) + (-.01) = .07, t = .68, NS$). In sum, we find support for hypothesis 2.

Finally, to test hypothesis 3, we regressed participant parents’ reciprocal intention on their perceived impact of the initiative, income, and education status. As expected, the regression model is significant ($F(3, 44) = 14.58, p < .01$) and explains a substantial part of the variance in participant parents’ reciprocal intention (adjusted $R^2 = .46$). More specifically, a significant positive coefficient for perceived impact of the initiative ($b = .76, t = 6.60, p < .01$) indicates that the greater the parents’ perceived impact of the initiative, the higher their intention to reciprocate.

Validity Checks. In addition to including key demographic variables such as education and household income level in our analyses, we paid attention to certain validity threats. For instance, it is possible that the differences in beliefs and behaviors across the participants and nonparti-

TABLE 3

THE MODERATING ROLE OF ACCULTURATION IN THE EFFECT OF INITIATIVE PARTICIPATION ON THE OUTCOME BELIEFS–ORAL CARE BEHAVIOR RELATIONSHIP: UNSTANDARDIZED REGRESSION COEFFICIENTS (T-STATISTICS)

Independent variable(s)	Oral care behavior
Initiative participation	.19 (.86)
Acculturation	-.04 (-.46)
Physical outcome beliefs	.02 (.49)
Psychosocial outcome beliefs	.01 (.14)
Initiative participation × acculturation	.05 (.18)
Initiative participation × physical outcome beliefs	.13 (1.19)
Initiative participation × psychosocial outcome beliefs	.81 (3.38)**
Acculturation × physical outcome beliefs	-.07 (-1.03)
Acculturation × psychosocial outcome beliefs	.12 (1.15)
Initiative participation × acculturation × physical outcome beliefs	-.01 (-.08)
Initiative participation × acculturation × psychosocial outcome beliefs	-.88 (-2.87)**
Income	-.08 (-.86)
Education	.04 (.38)
Adjusted R^2	.09
df	(13, 311)
Model F	3.61**

** $p < .01$.

participants are due not so much to program participation per se as to other, more general differences between these groups. This concern is exacerbated by the possibility that perhaps only those participant families with the most positive a priori oral health beliefs and behaviors actually completed the survey. While such confounds are always a concern in nonexperimental contexts, both our focus group and survey data point specifically to the causal role of program participation itself. Consider these focus group quotes: "Before, I used to push him to brush his teeth; now he goes on his own" and "I see that the program is doing an excellent job with them. My kids have more confidence, they feel good. It's good to see these changes."

As well, the perceived impact of the initiative measure (see the appendix) captures directly the changes wrought by program participation. The measure's mean value of 4.47 shows that participant parents perceive the program to have been largely effective. More importantly, we find that the program only works for the less acculturated participants. In fact, table 2 shows that the beliefs and behaviors of the more acculturated participants are no different from their nonparticipant counterparts. If anything, the former group's physical outcome beliefs are lower than that of the latter group. In other words, the initiative participation \times acculturation interaction revealed by our data allays the concern that the participant group is fundamentally different from the nonparticipant one. Finally, even within the participant group, early responders appear to be no different from the late responders in terms of demographics, beliefs, and behavior. Thus, eagerness to respond to the survey does not seem to necessarily be correlated with a general inclination toward positive oral health beliefs and behaviors.

A more thorny concern pertains to an acculturation-specific demand effect: it is possible that the less acculturated families respond more positively to the program not because it benefits them but because they want to seem supportive of such socially beneficial activities. We tried to minimize this possibility in part by asking the beliefs and behavior questions before mentioning the specific oral health initiative. As well, acculturation in and of itself does not seem to play a role in the nonparticipant's oral care beliefs and behaviors: there are no clear acculturation-based differences in their beliefs and behaviors. Finally, participant parents were also asked how their children's dental health had changed as a result of program participation (five-point scale; 1 = worsened a great deal, 5 = improved a great deal). The less acculturated parents indicated a more positive change ($M = 4.68$) than the more acculturated ones ($M = 4.35$; $F(1, 46) = 3.78, p < .06$), providing some evidence for the program's actual contribution. It is interesting to note, however, that less acculturated nonparticipants are at least directionally more willing to reciprocate than more acculturated ones, reflecting possibly a more general trend among newer immigrants to support initiatives that they feel might help them acculturate.

It is also possible that the cause beneficiaries' responses were based more on their desire that the program continue

than on the actual changes in their beliefs and behaviors. However, given that the respondents were past and present program participants rather than future ones, they are less likely to be so self-interested. In fact, if our respondents were motivated only by program continuation, then one might expect that a larger number would have participated. This is corroborated by the focus groups, where respondents were as candid about the program's shortcomings (e.g., limited service, long waiting time) as they were about its benefits.

GENERAL DISCUSSION

This research examines when, to what extent, and why a corporate oral health initiative promotes both the oral health and pro-company behaviors among its cause beneficiaries: disadvantaged immigrant Hispanic families. In doing so, this research not only advances our theoretical understanding of consumer behavior in the health domain but also provides pointers to marketers and policy makers interested in maximizing the consumer welfare emanating from such initiatives.

Theoretical Implications

This research contributes to the health behavior literature in two primary ways. First, it highlights the role of acculturation as an important moderator in the adoption of health behavior among immigrant populations. Our results suggest that, in their efforts to adapt to the host country, less acculturated immigrants are more motivated to adopt the appropriate oral health-related beliefs and behaviors. Because they find themselves separated from not just the supportive social networks of their home country but also, more importantly, the social mainstream of their host country, less acculturated immigrants are keener to adopt oral health behaviors, particularly when they believe such actions will bring them confidence and societal acceptance in their host country.

Second, our findings add to a growing body of research (Pechmann et al. 2003) that implicates consumers' psychosocial beliefs about health behaviors as the primary determinant of their behavior change, at least among certain target groups (e.g., children, disadvantaged ethnic groups) and for those health behaviors that are linked to social/interpersonal motives such as affiliation, impression management, and self-esteem. Overall, by demonstrating this dominant role of psychosocial beliefs in driving the adoption of oral health behaviors among the less acculturated program participants, our research complements the extant literature on public oral health (Milgrom et al. 1998; Stewart et al. 2002), which has so far been more concerned with identifying the sociodemographic barriers to behavior change.

Finally, this research also contributes to our understanding of CSR in the consumer domain by suggesting that a comprehensive picture of the societal impact of a corporate social initiative includes not only the first-order (i.e., social) effects on the welfare of the cause beneficiaries but also the

second-order (i.e., social and business) effects of involving these beneficiaries in supporting the cause. More specifically, by demonstrating that cause beneficiaries, a previously unexamined stakeholder group, sometimes view purchasing the products of the corporate sponsor as a way to contribute to the social cause, our research provides clear empirical evidence for the hypothesized alignment of social and business interests (Kotler and Lee 2004) when a company supports a social cause that contributes to the welfare of its consumers.

More generally, our research hopes to broaden the way marketing practices are currently viewed. Conventional wisdom suggests that most marketing practices are viewed as a “zero sum” game in which the welfare of one party can be enhanced only at the expense of another (i.e., companies lose profits if they focus on increasing consumer welfare). However, our reciprocity findings suggest that this does not have to be the case: symbiotic or win-win relationships that enhance the welfare of both businesses as well as consumers are indeed possible.

Practical Implications

The moderating role of acculturation in consumers’ adoption of oral health behaviors reveals that a well-designed, effective intervention program needs to be tailored to its target market by taking into account consumers’ life projects or current concerns (Mick and Buhl 1992) as well as by being culturally appropriate. The program we examine is particularly effective in promoting oral care behavior among children from less acculturated immigrant families precisely because its overall theme of “smile,” emphasizing the psychosocial benefits of oral health, is eagerly embraced by this disadvantaged group in their struggle to adapt to life in the host country. In that, our finding confirms Andreasen’s (1994) view that to effectively change behaviors that promote health and social welfare, marketers need to adopt a customer-oriented mind-set, basing their programs on a clear understanding of the needs and wants of their target consumer.

Our findings also suggest that when it comes to the health behavior of children and young adolescents, it may help marketers and policy makers to conceptualize the cause beneficiary more broadly, encompassing the parents as well. This is because, in addition to children’s reactions, their parents’ beliefs and attitudes toward the health behavior and the corporate sponsor are likely to play a critical role in driving children’s behavioral changes (Kumpfer and Alvarado 2003). Thus, to be successful, a health promotion program aimed at children might want to involve their families as active partners in effecting behavior change.

Finally, since consumers’ intentions to support the corporate sponsor is positively associated with their perceived impact of the health initiative, our research suggests that corporations should not only monitor and maximize the societal impact of their initiatives but also communicate the extent of the benefits/impact to relevant stakeholders. At the same time, since the beneficiaries are willing to reciprocate a company’s social endeavors, companies should find in-

novative ways to involve these stakeholders to maximize the impact of the social initiative.

Limitations and Future Research

Primarily because of the real-world dimension of this research, it has some methodological limitations. First, it was not possible to conduct a true experiment, wherein the outcomes could have been attributed more unequivocally to the key manipulation (program participation). Thus, despite our best efforts and a number of validity checks, we cannot entirely rule out certain alternative explanations for our results. For instance, we cannot completely rule out the possibility that participation in the BGCA clubs in general (rather than in the oral care program in particular) influenced the psychosocial outcome beliefs of program participants, particularly the less acculturated ones. As well, our significant initiative participation \times acculturation interaction notwithstanding, the possibility remains that the participant group may have been motivated to report positive effects, at least in part, to show their gratitude and support for such a program. Second, because of the real constraints in contacting a difficult-to-reach consumer segment, we have only a small sample of the cause beneficiaries in our field study.

This study also opens up several important avenues for future research. First, in the context of oral health behaviors, future research should explore the psychological mechanisms underlying the moderating role of acculturation. For example, researchers can investigate the relationships of constructs such as immigrant consumers’ willingness to acculturate, or preference for the host culture versus the home culture, to consumers’ degree of acculturation and their subsequent reactions to health intervention programs. Relatedly, while we measured acculturation by length of stay in the host country (Berry 1990; Escobar and Vega 2000), future research might want to capture the complex dynamics of acculturation by multiple items such as the language (i.e., English or mother tongue) used in a variety of social situations and value expressions that lean toward the home or host cultures, as well as interpersonal network composition (Rogler et al. 1991). Such fine-grained measures of acculturation can help shed clearer light on the precise mechanisms underlying the moderating role of acculturation, contributing to more complete theories of oral health behavior.

Second, future research should investigate the role of other important sociocultural factors, such as socioeconomic status, that may influence the outcomes of oral health interventions. For example, Chen and Paterson (2006) show that neighborhood socioeconomic status, representing the larger community context in which an individual lives, significantly affects adolescents’ physical health status. Understanding the pathways of such influences has important implications for optimally targeting interventions to reduce oral health disparities.

Future research in this area can also segment the population by other individual (e.g., age, gender, personality types) and sociocultural (e.g., ethnicity, individualistic or

collective culture, exposure to discrimination) characteristics, to generate a broader understanding of when and for whom the psychosocial benefits dominate the physical benefits and vice versa. As well, physical and psychosocial benefits are often causally related. A specific case in point from our research is “bad breath.” Although preventing bad breath is by itself a physical outcome, good breath is perceived as essential to having friends and a social life. Thus, research can investigate the effectiveness of health intervention messages that depict not only the psychosocial benefits but also the link between the physical and psychosocial benefits of oral health behavior.

Finally, our research was conducted in the domain of oral health, which involves a highly visible body part (i.e., teeth); future research can examine whether our findings can be generalized to other domains involving less visible body parts, such as the promotion of cardiac health. For example, future research can examine whether and under what conditions message themes that emphasize the physical benefits (i.e., reduced chance of heart disease) of better food habits and physical activities are more or less effective compared with themes that emphasize the psychosocial benefits (i.e., losing weight, being more attractive, having self-confidence) of such health behavior.

APPENDIX

TABLE A1

KEY CONSTRUCTS ($n = 325$)

	Statistics
Beliefs about outcomes of oral care behavior:	
Physical (1 = strongly disagree, 5 = strongly agree): ^a	
• He/she does not know that taking care of his/her teeth helps prevent cavities	$r = .62, M = 2.91;$
• He/she does not know that taking care of his/her teeth helps prevent bad breath	$SD = 1.46$
Psychosocial (1 = strongly disagree, 5 = strongly agree):	
• He/she thinks that taking care of his/her teeth improves his/her smile	$\alpha = .70, M = 3.63;$
• He/she thinks kids who take care of their teeth have more friends	$SD = .88$
• He/she thinks kids who take care of their teeth are more popular with the girls/boys	
• He/she thinks kids who take care of their teeth have more self-confidence	
Oral care behavior:	
• How often does he/she usually brush his/her teeth? (0 = less than twice a day, 1 = twice a day or more)	$M = 1.22; SD = .76$
• How often does he/she usually floss his/her teeth? (0 = less than once a day, 1 = once a day or more)	
• How often does he/she visit the dentist for routine checkups? (0 = twice a year or less, 1 = more than twice a year)	
Perceived impact of initiative (1 = strongly disagree, 5 = strongly agree): ^b	
• XX (the name of the health initiative) has improved my child's life	$r = .58, M = 4.47;$
• XX (the name of the health initiative) has enabled my child to take better care of his/her teeth	$SD = .58$
Reciprocal intention (1 = strongly disagree, 5 = strongly agree):	
• My community should buy XX (the brand) products to support XX (the name of the health initiative)	$\alpha = .70, M = 3.84;$
• Buying XX (the brand) products is an excellent way for people in my community to support XX (the name of the health initiative)	$SD = .79$
• I am willing to pay a price premium for XX (the brand) products if it's the only way for XX (the name of the health initiative) to continue	
Acculturation (in years):	
• How many years, in total, have you yourself lived in the U.S.?	$M = 22.33;$ $SD = 13.09$

^aThese items were reverse coded.

^bOnly program participants ($n = 48$) answered these questions. For all other variables, $n = 325$.

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