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# Making Diabetes Self-management Education Culturally Relevant for Filipino Americans in Hawaii

## Purpose

The purpose of this study was to identify the cultural values, traditions, and perceptions of diabetes risk and self-care among Filipino Americans in Hawaii with type 2 diabetes that facilitate or impede engagement in diabetes self-management behaviors and education classes.

## Methods

This qualitative study used 2 rounds of semistructured focus groups and interviews. Participants included 15 patients with type 2 diabetes recruited from a large health-maintenance organization in Hawaii and 7 health care and cultural experts recruited from the community. The taped and transcribed focus groups and interviews were coded thematically. Participants evaluated example materials for diabetes self-management education (DSME) with Filipino Americans.

## Results

Several aspects of Filipino American culture were identified as central to understanding the challenges of engaging in self-management behaviors and DSME: (1) undertaking self-management while prioritizing the family and maintaining social relationships, (2) modifying diet while upholding valued symbolic and social meanings of food, (3) participating in storytelling in the face of stigma associated with diabetes, and (4) reconciling spiritual and biomedical interpretations of disease causality and its management. Respondents also emphasized the

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role of several qualitative aspects of perceived risk (eg, dread, control) in moderating their behaviors. Participants suggested ways to make DSME culturally relevant.

## Conclusions

Awareness of cultural values and qualitative aspects of perceived risk that influence Filipino Americans' engagement in diabetes self-care behaviors and classes may help to improve teaching methods, materials, and recruitment strategies.

Sharp ethnic disparities exist in the prevalence and burden of type 2 diabetes.<sup>1-7</sup> Finding ways to alter the course of this disease and reduce disparities is a US health priority.<sup>8,9</sup> Despite evidence that preventive care effectively reduces complications<sup>10-13</sup> and that the benefits of lifestyle interventions do not differ among or between minority groups,<sup>14</sup> existing diabetes self-management education (DSME) programs are not reducing disparities. Filipino Americans in Hawaii consistently have 2 to 3 times the age-adjusted prevalence of type 2 diabetes compared with Caucasian Americans, and 45% of Filipino Americans in Hawaii are overweight or obese.<sup>2-4</sup> Compared with Caucasian Americans, Filipino Americans are less likely to engage in optimal self-care behavior (Table 1).<sup>15</sup>

Despite the evidence that DSME is effective for diabetes treatment,<sup>16-18</sup> that it improves self-management, glycemic control, and health status,<sup>19-21</sup> and that it prevents diabetes complications,<sup>11,22-26</sup> participation in DSME tends to be low.<sup>5,6,27</sup> People with diabetes often do not receive DSME, despite living in communities in which education programs are offered.<sup>28,29</sup> Because chart reviews rather than interviews have been used in studies of DSME participation rates, data are sparse on whether participants and nonparticipants differ on key characteristics.<sup>30-32</sup>

Several authors recommend culturally relevant content and delivery of DSME.<sup>33-36</sup> A 1990-2001 review of community-based programs reported that developing intervention strategies with members from the target populations helps to include culturally relevant materials in the programs (eg, cultural foods and exercise, traditional symbols to reinforce educational concepts).<sup>37</sup> The review listed 16 published interventions, 8 of which were conducted in the United States and targeted high-risk

Table 1

### Diabetes Self-management Behaviors of Caucasian and Filipino Americans<sup>a</sup>

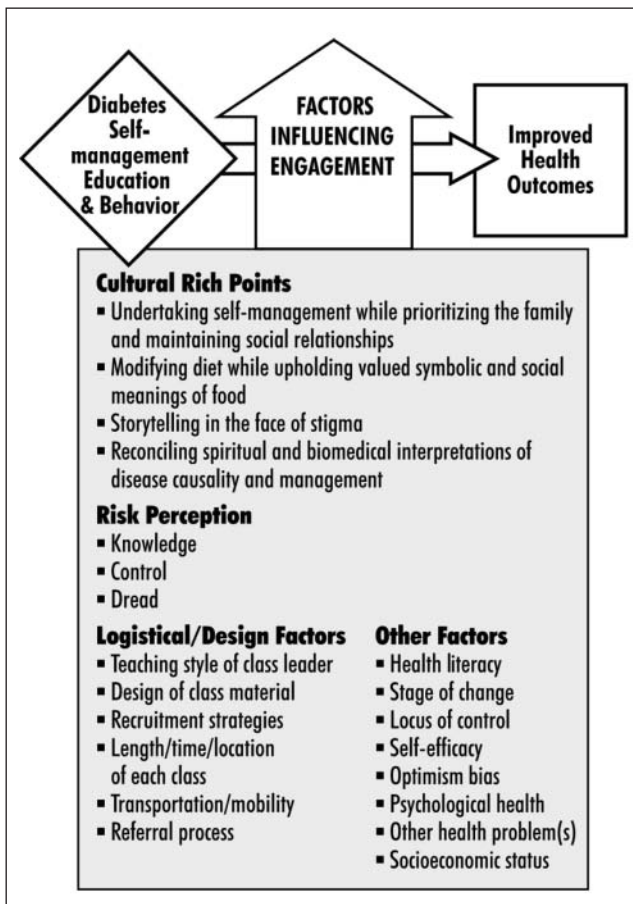
Self-management Behavior	Caucasian Americans	Filipino Americans
Never check blood glucose	19.4	27.4
Have never attended eye exam	3.8	3.1
Check feet for sores daily	67.7	55.2
Meet physical activity recommendations	60.1	44.2

<sup>a</sup>All values are percentages. Data were obtained from State of Hawaii Behavioral Risk Factor Surveillance System.<sup>15</sup>

populations such as Native Hawaiians (n = 1), Native Americans (n = 4), Mexican Americans (n = 2), and African Americans (n = 1). Outcomes indicated an overall positive effect of culturally relevant curricula as measured by increased knowledge of diabetes, behavioral changes (eg, less consumption of sugared drinks), and declines in body mass index (BMI) and impaired glucose tolerance. The results of these studies point to the need for developing DSME materials that successfully bridge the divide between biomedical concepts and the health beliefs of local populations.

### Building Engagement in Diabetes Self-management Behaviors

Several theoretical models of health-behavior change relate to diabetes self-management behaviors: the health belief model,<sup>38</sup> the theory of reasoned behavior,<sup>39</sup> the transtheoretical model,<sup>40</sup> and the protection motivation theory.<sup>41</sup> Many of these models emphasize the influential role of sociocultural values, qualitative aspects of risk perception and communication, and other factors that vary with cultural background.<sup>38-43</sup> When a culturally relevant context is used to discuss behavior change, the information about diabetes and self-care behaviors becomes more meaningful for the intended audience.<sup>44-46</sup> Factors likely to influence participation by Filipino Americans in DSME classes in Hawaii are shown in Figure 1 and described briefly below.



**Figure 1.** Framework of engagement factors influencing the impact of diabetes self-management education classes and behaviors on health outcomes for Filipino Americans.

**Cultural rich points.** Current anthropological theory on culture and cross-cultural communication is particularly applicable for building culturally relevant DSME curricula.<sup>47</sup> Specifically, Agar's<sup>48,49</sup> formulations of "rich points" as cross-cultural translation problems and of culture as a process of translation are used to frame the relative lack of participation in DSME among Filipino Americans in Hawaii. This study's qualitative approach identifies rich points of difference between biomedicine and health education "cultures" and Filipino-American cultures. This study also identifies rich points of contradictory or conflicting ideas about diabetes, self-care, and chronic disease management held at an individual or a group level by Filipino Americans. These cultural contradictions have been described in the anthropological literature for decades.<sup>50</sup> Cultural contradictions create exactly the kinds of rich points for cultural translation

that could be drawn upon to enhance engagement in DSME by incorporating a nuanced, multifaceted portrayal of Filipino American cultures into biomedically oriented DSME curricula.

One example of a cultural rich point surrounds the value of collectivism (downplaying the goals of individuals in favor of group goals): sometimes collectivism enhances and other times it impedes engagement in diabetes self-management. As shown in a study of Native Hawaiians by Mau et al,<sup>51</sup> DSME effectiveness was enhanced by encouraging a family member or close acquaintance to participate in the program. Other studies suggest that Filipino Americans often want family support in deferring to the opinion of health authorities about the best course of action.<sup>52-55</sup> In other contexts, however, emphasis on the collective may lead to difficulty. For instance, family needs and smooth social relations may be prioritized over self-care activities such as preparing healthy meals or finding time for physical activity. Another example comes from the fact that a major way that relationships are established in Native Hawaiian and Filipino groups is through the sharing of food. Pressure to eat at social or family visits is prominent,<sup>56</sup> and dietary modification may be problematic.

Educational approaches in collectivist cultures tend to emphasize storytelling and role modeling.<sup>57</sup> Differences between the way educational programs impart information and the "natural" way individuals receive information can influence the effectiveness of health-promotion programs. Strategies for effective, culturally appropriate DSME have been proposed, including storytelling to communicate information and skills about diabetes.<sup>58,59</sup> However, if patients perceive diabetes as shameful or stigmatizing, they may be reluctant to share their stories with others. Consequently, the educational and social support value of natural-language communications may not be realized.

There is a small body of research on the cultural characteristics of Filipino Americans that may influence health care.<sup>60-65</sup> The relative importance of these characteristics for self-care behaviors likely will depend on an individual's immigration recency and generational cohort (ie, first, second, third generation born in the United States) as well as his or her acculturation and self-identification as a member of other cultures.<sup>66-68</sup> However, no studies have examined the cultural values and traditions that influence Filipino Americans' engagement in effective diabetes self-management behaviors.

Moreover, no studies describe culturally relevant methods and materials for teaching Filipino Americans strategies for effectively managing diabetes.

**Qualitative dimensions of perceived risk.** Models of health behavior describe how health risk perception affects the adoption of preventive behaviors.<sup>38,42,43</sup> Medical models of disease typically characterize risk in terms of its probability (eg, incidence rates). However, extensive research<sup>69,70</sup> has shown that lay perceptions of risk reflect qualitative dimensions such as the extent to which a risk is “known” or “dreaded.” Research has shown also that perceived risk is not independent of cultural context. For instance, worldviews (the framework of ideas and beliefs through which an individual interprets and interacts with the world) influence individuals’ perceptions of and responses to risk.<sup>71-79</sup> A fatalistic worldview—common among Filipino Americans—may increase feelings of dread related to a disease attributable to a perceived lack of personal control. At the same time, fatalism may decrease the likelihood of attempting risk-reducing behavior. Addressing qualitative dimensions of risk perceptions is a complex translational activity that can reduce the gap between clinicians’ and patients’ recognition of DSME usefulness.<sup>80-82</sup>

Research on diabetes risk perception is limited but suggests that many individuals are unaware of the risk and may have misconceptions about the disease.<sup>83,84</sup> To be effective, a risk communication needs to be integrated with the audience’s existing concept of the risk. Unfortunately, there have been no studies of Filipino Americans’ perceptions of diabetes risk and how they influence engagement in self-management behaviors and education classes.

**Logistics, design, and other factors.** Poor participation rates in DSME classes may relate to the teaching style of the class leader, the design of printed materials, or the strategies used to recruit participants. In addition, the frequency, length, time of day/week, and locations of classes; mobility barriers (eg, access to transportation and flexibility of childcare/elder-care commitments); and the referral process may affect participation rates. Other factors that may influence diabetes self-management include literacy,<sup>85,86</sup> diabetes care knowledge,<sup>87,88</sup> stage of behavior change,<sup>40,89</sup> locus of control,<sup>90,91</sup> self-efficacy,<sup>92-95</sup> optimism bias,<sup>96,97</sup> psychological dysfunction including feelings of depression,<sup>98-101</sup> other health problems,<sup>56</sup> and

socioeconomic status (poverty/unemployment).<sup>32,99,102</sup> No studies have examined the impact of these variables on Filipino Americans’ engagement in DSME and self-care behaviors.

## Research Question

This exploratory study examined a primary research question: What cultural values, traditions, and perceptions of diabetes risk and self-care among Filipino Americans in Hawaii with type 2 diabetes facilitate or impede engagement in diabetes self-management behaviors and education classes?

## Methods

### Research Design

A qualitative research design was used because the research question required in-depth exploration of the nature of Filipino Americans’ values, traditions, and perceptions of diabetes risk and self-care behaviors. Qualitative methods such as focus groups and in-depth interviews allow participants to describe beliefs and experiences in their own words, rather than as a choice between predetermined survey responses.<sup>103</sup> These methods illuminate how people conceptualize, experience, and talk about health-related issues and are useful in defining the range and variability of beliefs, behaviors, and experiences of study populations.<sup>104, 105</sup> This approach provided information lacking in existing literature.

### Sample

The sample included 15 patients recruited from the Kaiser Permanente Hawaii (KPH) diabetes registry and 7 experts recruited from diabetes health care professionals and cultural experts in the Hawaii community.

At the time of this study, the KPH diabetes registry listed 166 potential participants for the patient group who were diagnosed with type 2 diabetes and self-identified their ethnicity as Filipino. A research assistant of Filipino ethnicity attempted to contact all 166 individuals by telephone. For 48 individuals there was no final outcome (never successfully reached); 91 declined to participate; and 27 agreed to participate and were scheduled to attend the focus groups. Fifteen adults attended their scheduled session and consented to participate. Table 2 displays the demographic and other characteristics of the patient sample.

Table 2  
 Characteristics of the Patient Sample (N = 15)

Variable	
Age, y, range (mean)	33-60 (50.7)
Gender, n (%)	
Women	12 (80)
Men	3 (20)
Born outside the US, n (%)	
Yes <sup>a</sup>	10 (67)
No <sup>b</sup>	5 (33)
Education, n (%)	
Completed 8th grade	1 (7)
High school graduate	2 (13)
Some college or 2-y degree	4 (27)
4-y college graduate	7 (47)
More than 4-y college degree	1 (7)
Able to read English, n (%)	
“Not at all” or “A little”	0 (0)
“Well” or “Very well”	15 (100)
Current income, n (%)	
<\$50 000	7 (47)
≥\$50 000	1 (7)
Refused to answer	7 (47)
Live in a rural area, n (%)	
Yes <sup>c</sup>	13 (87)
No	2 (13)
First diagnosed with type 2 diabetes, n (%)	
<1 y ago	2 (13)
1-5 y ago	10 (67)
>5 y ago	3 (20)
Ever attended KPH DSME classes, n (%)	
Yes	2 (13)
No	13 (87)
Abbreviations: KPH, Kaiser Permanente Hawaii; DSME, diabetes self-management education.	
<sup>a</sup> For the 10 individuals born outside the United States, the average time in the United States was 23.6 years and the minimum time was 9 years.	
<sup>b</sup> Of the 5 individuals born in the United States, 3 reported that their families came to the United States 1 generation ago; 1 reported that his family came 3 generations ago; and 1 participant did not respond.	
<sup>c</sup> The zip codes of these respondents represented urban areas, but respondents may have viewed their locations as rural because they lived outside of the Honolulu metropolitan area.	

For the expert group, 10 individuals were contacted and 7 agreed to participate. Five expert participants had higher education in a health field (eg, MPH, MD, RN) and had worked with diabetes patients for at least 3 years; 1 participant had higher education in anthropology (PhD); and 1 participant did not have higher education but was known as an influential cultural leader in the Filipino community in Hawaii. Three expert participants were born in Hawaii; 3 were born in the Philippines and had lived in Hawaii at least 17 years; and 1 had moved to Hawaii from the US mainland 14 years previously. Six expert participants self-identified their ethnicity as Filipino; 1 self-identified as Caucasian.

### Focus Group Methodology

Focus group methodology was used to explore how patients conceptualize, experience, and talk about diabetes risks. This technique provided an efficient mechanism for collecting qualitative data from a large number of individuals in a relatively short amount of time. It also allowed for examination of the range and/or consensus of experiences. Standard protocols were developed to ensure that the same issues were discussed in all focus groups. A “funneling” technique was followed during questioning, starting with a broad question that encompassed the issue of interest but avoided prejudging the answer.<sup>106</sup>

In round 1, patients were asked first to comment on the experience of diabetes self-management for Filipino Americans (eg, “Tell me what you think about having diabetes”). During the discussions, more specific probes asked about Filipino Americans’ understanding of risk-exposure processes, the effects of diabetes, risk assessment and management, and Filipino values and traditions relevant to self-care and participating in DSME classes (eg, “How does Filipino culture affect your ability to eat healthy meals?”). Patients were also asked about their reactions to a printed version of the existing KPH DSME curriculum. Finally, patients were asked about their reactions to various diabetes knowledge and attitude questionnaires (responses not reported here). Based on the data collected in round 1, example methods and materials for DSME with Filipino Americans were developed and presented for comment and evaluation in round 2. In addition, round 2 participants were asked to discuss in depth the dilemma faced by diabetes patients simultaneously trying to manage their diabetes and meet their family and social obligations.

The first author, who has 8 years of experience facilitating focus groups, conducted 2 rounds of focus groups with the participating patients. Round 1 consisted of 4 focus groups (for a total of 15 patients, with 3-5 individuals per group) conducted between August and November 2006. All individuals who participated in round 1 were invited to participate in round 2. About half of the original sample returned for round 2, which consisted of 3 focus groups (for a total of 7 patients, with 1-4 individuals per group) conducted in August and September 2007. The purpose of the second round of focus groups was to confirm the findings of round 1, to elicit new information in reaction to materials revised on the basis of round 1 findings, and to explore in more detail specific areas of discourse that had raised conflicting viewpoints. The same individuals were invited to both rounds of focus groups because this allowed the researchers to (1) evaluate whether participants' views had been captured accurately, (2) evaluate whether participants' suggestions for revisions to existing DSME materials had been addressed adequately, and (3) explore in more detail some of the specific topics identified in round 1 as important and complex. Each focus group took about 2 to 3 hours. Participants were given a \$50 gift certificate for each focus group that they attended, to compensate for their time and travel expenses. During focus group discussions, 2 assistants to the facilitator recorded information about group members' remarks and nonverbal responses. Following the discussion, the facilitator and assistants debriefed to summarize observations and issues raised in the discussion.

### In-depth Interviews

During in-depth interviews, researchers guide discussions by introducing a series of prepared, open-ended questions designed to elicit factual information on behavior or events as well as on participants' knowledge, beliefs, and attitudes about particular topics. This type of interview differs from structured interviewing in that the agenda of the interviews is flexible in order to uncover and explore new areas or ideas that were not anticipated at the onset of research.<sup>107, 108</sup>

In this study, expert participants were interviewed using an interview guide similar to the focus group protocol to ensure uniformity of the key issues covered. However, the order of questions varied in response to participant contributions, as did the number and type of

probes needed to elicit additional information. The first author, who has more than 10 years of experience doing in-depth interviews, conducted 2 rounds of interviews with the expert participants. Round 1 consisted of 7 individual interviews. All individuals who participated in round 1 were invited to participate in round 2; 4 individuals agreed to do so. The reasons for inviting the same individuals to participate in both rounds are the same as given above for the focus groups. Each interview was about 1 hour in length and was audio recorded. The interviewer recorded field notes that documented information outside the audiotaped record, such as observations about the participant, as well as nonverbal communication (eg, laughter, gestures) that took place during the interview. Expert participants were given a \$25 gift certificate for each interview.

### Setting

The study protocol and consent form were approved by the Institutional Review Board of KPH. KPH is a group-model health maintenance organization (HMO) that provides comprehensive, prepaid health care service, including access to inpatient, outpatient, and emergency department services, to about 230 000 members. The demographic and socioeconomic characteristics of the members correspond closely to those of the area populations being served,<sup>109</sup> and no evidence exists of a systematic selection of healthy individuals either into or out of the system.<sup>110</sup>

Patient focus groups were held in meeting rooms at the KPH Center for Health Research (downtown Honolulu), at an outlying KPH clinic, and at the Filipino Community Center. Expert interviews were conducted mostly in private spaces at interviewees' workplaces (exceptions included 1 interview at a coffee shop and 1 at the KPH Center for Health Research).

### Data Analysis

Qualitative theme analysis<sup>111, 112</sup> was used to distinguish salient constructs and issues and to identify words or phrases commonly used to describe attitudes and experiences. Audio recordings of all focus groups and individual interviews were transcribed verbatim using standardized transcription protocols. All transcripts from round 1 were read by both authors; core themes that repeatedly appeared in the data were identified by the first author and confirmed by the second author.

Consensus on common and differentiating themes was achieved via discussion. Round 2 transcripts were read by only the first author. Data analyses for round 2 confirmed the main themes identified in round 1 and produced no new themes.

## Results

The results of the data analyses are reported primarily as main themes emerging about Filipino-American values and traditions and qualitative aspects of risk perceptions that affect engagement in DSME and self-care behaviors.

### Rich Points Central to Understanding Diabetes Self-management Challenges

Data analyses revealed 4 main cultural rich points as central to understanding the challenges Filipino Americans face when trying to engage in effective self-management of diabetes: engaging in self-management while prioritizing the family, modifying diet while upholding valued symbolic and social meanings of food, participating in locally valued storytelling and collective teaching modalities in the face of stigma and shame associated with diabetes, and reconciling spiritual and biomedical interpretations of disease causality and the value of disease management.

***Self-management while prioritizing the family and social relationships.*** Both patient and expert respondents emphasized the importance of family and respecting one's elders in Filipino-American culture. In Hawaii, it is common for several generations of a Filipino American family to share one household. Established family members often provide support for new immigrants until they are able to maintain stable financial and personal lives. Respondents emphasized that Filipino-American families value loyalty, interdependence, caring for family members, and putting the family welfare before oneself. For many Filipino Americans in Hawaii, family is the major source of emotional and economic support, and it is important to return kindness shown by other family members. Respondents stressed the importance of contributing to their family and not being a burden to their family. One respondent noted that family concerns rank much higher than health concerns: "I don't think people worry about their health . . . they worry about their family . . . about being able to provide." Furthermore, several

respondents emphasized the core value of *pakikisama* (being cooperative) in Filipino American culture. Considerable weight is given to smooth interpersonal relationships, harmony, and avoiding conflict in the family and the community.

Respondents agreed that the importance of meeting family obligations and maintaining social relationships in Filipino-American culture can complicate diabetes self-management because of pressures to look after one's family and friends before oneself. The health problems and self-care needs that accompany diabetes present a dilemma to someone who wants to maintain his or her contribution to the family. Many patients expressed a strong desire not to burden their family or offend their hosts with special dietary needs or the cost of getting medical care. Although prioritizing family needs over personal needs typically decreases the acceptability of self-care, the pressure to ensure that one can continue to work to provide for the family may motivate individuals to engage in self-care to avoid getting sick.

***The symbolism of food.*** Expert and patient respondents noted that sharing a meal is a way for people to connect and to remember their roots. Rice is particularly important: As one patient said, "A meal is not a meal without rice." Rice is viewed as a symbol of strength, sustenance, sacrifice, wealth, and togetherness and may be eaten at every meal. Reducing or eliminating rice from one's diet may be perceived as rejecting Filipino culture and is thus considered a difficult loss for many Filipino Americans. Furthermore, many respondents reported that Filipino Americans are expected to eat something when they visit someone's house: "When I go to my parents' house the first thing, after they say 'Hi, hello,' and we hug and kiss, the first thing they ask is 'Have you eaten?' And you say, 'I have,' and they say, 'Oh eat some more.'" This tradition reflects the importance of securing family relationships. However, being offered food at every visitation may make it difficult for some Filipino Americans to reduce their caloric intake.

***Working together and storytelling in the face of shame, guilt, and stigma.*** Several respondents emphasized *bayanihan* (everyone working together for the benefit of all) as a core value in Filipino American culture. *Bayanihan* refers to a spirit of communal unity and cooperation. Although it may take many forms, *bayanihan* is most obviously displayed in the old tradition of neighbors helping

to relocate a family by literally carrying the whole house to its new location using long bamboo poles. It takes a large number of people working together to carry the entire house and is done in a spirit of happy and festive celebration. Patient and expert respondents emphasized that communal unity also is created through a story-based approach to communication. Filipino Americans value finding out about other people's lives and sharing life's events through storytelling.

Unfortunately, publicly discussing the problem of diabetes and how it needs to be managed may be problematic for many Filipino Americans. Some patients said that when they were told that they had diabetes or needed to use insulin, they experienced feelings of shame (*hiya*), humiliation, and guilt that they had let their family down:

It's like being a leper. It's like a mark against you and they (Filipino Americans) are very proud but they are not . . . boastfully proud. They are just proud to sort of look healthy. They don't want to admit an illness. An illness is almost like a failure . . . and they don't want to look like failures to the next person.

Some respondents suggested that some patients with diabetes believe that they must have done something bad in their life (eg, premarital sex, infidelity, drug use, stealing, divorce) to warrant the disease, which is viewed as a punishment. Others may not know what they did wrong but will believe that they deserve this disease and its consequences. Respondents suggested that the extent to which these beliefs are evident may depend on the person's education level, exposure to experiences outside of the family, and location (rural more prone than urban).

The shame, guilt, and stigma associated with diabetes may make patients reluctant to share their diagnosis with family members, resulting in a lack of social support, low self-esteem, and depression for the patient. Working together with family members or a community group to support effective self-management of diabetes seemed impossible to several patient respondents. Furthermore, patients may be reluctant to alter their diet in public because this may reveal their condition to others.

**Faith and personal responsibility.** Catholicism significantly informs many Filipino Americans' spirituality, their interpretations of illness, and their understanding of how to manage diabetes. Animistic beliefs were also mentioned in discussions of diabetes. Both expert and patient respondents noted the prevalence of the belief of

*bahala na*—that most things are outside the individual's control and in the hands of God. A few patients suggested that some people (especially older generations and women) may think that the disease is acquired from spirits and remediable by prayer:

Maybe (people) say, "Oh, maybe you got that from, like . . . you know, you probably offended this spirit." . . . They may go to the doctor, or they may not, because they will say, "I will just pray, and God will take care of me."

Prayer was reported by several patients to be a common part of their self-management.

Some respondents suggested that one purpose given for this external locus of control may be that it helps people cope. Reluctance to accept personal responsibility for the disease and its management was perceived to be a way of avoiding the shame and embarrassment that many Filipino Americans associate with sickness (especially related to diabetes). An external locus of control is problematic for self-management in that if patients believe that their efforts will be ineffective they will not attempt lifestyle changes.

### **Risk Perceptions: Knowledge and Affective Responses**

Expert respondents tended to agree that many patients with diabetes were unaware of how diabetes occurs and that they needed to be better educated about how the body works and how diabetes can be managed. Many patient respondents did not know that diabetes is more prevalent among Filipino Americans than Caucasian Americans and seemed limited in their understanding of the problems that diabetes can cause to major organs. The most commonly cited complications were the externally obvious ones (eg, limb amputation, blindness), which were viewed as painful and ugly. However, many patient respondents displayed a fair understanding of the role of the pancreas in producing insulin and controlling blood sugar levels. Several patients indicated that an awareness of the role of family history, diet, and physical activity is emerging among Filipino Americans. Behavioral changes in diet were observed in the community. For example, people were avoiding Filipino delicacies, such as bibingka and mochi (rice flour pastries), at picnics. Several other patients commented on the different energy demands of life in the Philippines (where manual labor and walking are common) versus life in Hawaii (where people are more sedentary). When asked the source of

diabetes, one respondent said, “Oh, it’s because I’m lazy now. You know, that’s why I got my diabetes.”

Most patient respondents did not associate feelings of dread with having diabetes. Several patients commented that cancer typically is seen as a death sentence and is perceived to be more risky than diabetes, which people can live with for a long time. Some patients noted that they felt relatively healthy with diabetes at first and that they did not appreciate the complications of diabetes (eg, kidney dialysis). For them, the perceived risk and thus motivation to manage the disease were low, at least initially. Low risk perceptions and motivations were compounded by feelings of low environmental control (eg, when facing a buffet of high-carbohydrate dishes at parties) or high personal control (eg, taking medication to control blood sugar levels). One patient said,

The threat of diabetes is just like a nuisance. I wish it wasn’t there. It’s there. I’ll cope with it, you know, but I won’t make any life changes. . . . You know I got my little white pill . . . that’s some kind of miracle to me I suppose because I can still drink beer. But to me . . . I won’t make any life changes because I don’t see it as a threat to me right now. Possibly when my feet turn black or something like that I’ll say, shucks, I shoulda done something better but, you know, for now I think life is good.

Several patients reported feeling strong negative feelings about diabetes. One said that diabetes was a serious disease and that she was “very scared of those amputations.” Some patients associated strong negative affect with diabetes medications, saying, “oh, those pills are poison” or that they were fearful of insulin injections. Most patients tended to think that graphic images of diabetes complications (eg, people with amputations) would motivate them to manage their diabetes better but that they would not like to see repulsive images.

## Discussion

This study identified several rich points of difference between biomedicine/health education cultures and Filipino-American cultures. The rich points highlighted diverse locally acceptable discourses about diabetes self-management, some leading to lack of engagement in diabetes self-management and others offering locally acceptable alternatives facilitating engagement.

Admittedly, Filipino Americans do not represent a homogeneous group.<sup>60</sup> As Anderson<sup>113</sup> pointed out,

Filipinos in the Philippines are diverse, and this diversity is intensified in the United States. Thus, diabetes educators need to be responsive to differences in immigration history, acculturation, and other sociodemographic variables, which affect the extent to which rich points are salient and the manner in which they need to be addressed. A critical challenge for diabetes educators is to teach patients about the biology of diabetes and the relationship between dietary/physical activity behaviors and health outcomes within the context of locally salient beliefs and practices.

The cultural rich points identified in the present study are similar to cultural themes reported as salient in other studies of health care practices with Filipino Americans. Although no previous study has addressed DSME explicitly with this cultural group, the importance of family, social relationships, food, and faith is considered key in understanding effective health promotion and care with Filipino Americans.<sup>62,64,114</sup> These results are consistent also with literature emphasizing that cultural beliefs influence perceptions of illness and understandings of the way in which chronic disease can be managed.<sup>60,61,65,115-118</sup>

Respondents’ emphasis on the importance of qualitative aspects of perceptions of diabetes risk was consistent with recent findings in risk-perception research.<sup>119-121</sup> Many patients reported that a lack of feelings of dread about diabetes led them to be unmotivated to adhere to healthy lifestyles, despite being aware of the role of diet and physical activity in mitigating diabetes complications. The importance of patient knowledge and feelings of control highlighted by respondents in this study is consistent with previous research.<sup>84,122</sup>

These findings are theoretically relevant for models of health-behavior change. They offer an anthropologically informed framework for creating culturally relevant health care. Rich points are means for more meaningful, respectful, and nonstereotyped engagement between diverse populations and health care providers. These findings are practically relevant because they describe specific ways in which diabetes educators may modify existing DSME programs to give Filipino Americans more influence and control over the potential complications of the disease they are managing.

## Recommendations for Diabetes Educators

Based on the rich points identified in this study, specific recommendations for diabetes educators working

with Filipino Americans include the following: (1) acknowledge the importance of family members and family obligations in diabetes self-management; (2) address the symbolism of food (especially rice) and help patients to process the grief associated with reducing rice intake; (3) attempt to mitigate the stigma associated with diabetes, in part by creating a safe environment in which to share stories about the challenges of diabetes and contextualizing self-management as a community challenge that requires everyone to work together; (4) bridge spiritual and biomedical interpretations of disease causality and its management; and (5) capitalize on patients' affective responses to help them apply effective self-management behaviors.

### Limitations

Several limitations of this study raise important questions. First, do the results reported in this article generalize to other samples of Filipino Americans with type 2 diabetes? This sample was drawn from a large HMO in Hawaii and may not represent the general population of Filipino Americans in the United States in terms of immigration history, employment status, or other demographic variables. The consistency of these findings with previous reports encourages confidence that many of these findings will be relevant for DSME with this cultural group in other settings. Additional confidence is drawn from the fact that the expert sample consisted mostly of individuals drawn from outside the KPH system. Although focusing on KPH members provided the opportunity to ensure that this study's recommendations for DSME modifications will work within an integrated-care system, further exploration of the variance across Filipino Americans in their personal models of diabetes risk and ways of managing that risk will provide important information to educators about how to make DSME classes culturally relevant beyond this setting.

Another important question is whether a DSME curriculum that is tailored to Filipino Americans is better than an existing curriculum for improving self-management behaviors and glycemic control. This empirical question awaits research in a randomized, controlled trial. The role of covariates, such as stage-of-change and self-efficacy, and how they interact with cultural values and perceptions of risk will need to be examined.

An important caveat concerns the small sample size of this study. It is possible that additional information

would have been obtained through more focus groups and interviews with a broader sample of individuals representing more diverse backgrounds. Within this sample, however, the questions posed were thoroughly addressed, because little new information was obtained in the second round of data collection. This phenomenon, called saturation in qualitative research, is an indication that a topic has been adequately sampled (ie, enough interviews conducted or enough text analyzed).<sup>123</sup> Additional research should examine whether the present findings generalize to individuals with different expertise, immigration histories, and sociodemographic backgrounds. Ultimately, a large-scale, randomized, controlled trial of culturally relevant methods and materials could begin to answer what type of education works and for whom and whether it is cost-effective.<sup>124</sup>

### Conclusion

Understanding the role of cultural rich points and qualitative aspects of risk perceptions helps health care providers to foster rapport with their patients and find culturally acceptable ways to improve engagement. Increasingly, DSME in the United States will need to address different cultural groups' ways of understanding and managing diabetes; the high prevalence of diabetes among Filipino Americans means that their cultural contexts need to be addressed immediately. The descriptive work presented in this article provides a basis on which a DSME curriculum can be developed for Filipino Americans to reduce disparities in the prevalence and burden of diabetes.

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