DGIM Project Summary

Name of Project:
CBPR (Community-Based Participatory Research) with Immigrant Chinese with Diabetes

Investigator(s). (Include phone numbers and email address, indicate PI and primary contact)

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Research question(s):
A Specific Aim of this CBPR project is to test a culturally-adapted behavioral diabetes intervention (Chinese Coping Skills Training) to address family and cultural issues in immigrant Chinese patients with Type 2 diabetes. Two hypotheses will be tested using a repeated measures design:
Hypothesis 1: Participation in Chinese Coping Skills Training (CCST) will result in significant improvement in diabetes self-efficacy and family conflict management
Hypothesis 2: Participation in Chinese Coping Skills Training (CCST) will result in significant improvements in quality of life, glucose regulation and intercultural competence.

Brief Background/Significance:
Background
Rates of T2DM in the United States have increased significantly in all segments of the population but most strikingly in ethnic minorities;[1, 2] Chinese Americans suffer a rate 1.6 to 3 times higher than that of Whites.[3] Immigration to the U.S. and acculturative stress increase the risk: rates of diabetes are 5-7 times higher in immigrant Chinese than in residents of China.[4] Those of Chinese descent may also suffer disproportionately high rates of complications, particularly from microvascular diseases, although data on this are sparse.[5] These problems are particularly relevant in California, where Asian Americans are the second largest ethnic minority in the state (12.2% of the population), second only to Latinos (31.6%).[6]

However, health research on Asian Americans has lagged behind research on other ethnic groups[7] largely because of a “model minority” stereotype[8] that mischaracterizes Asian Americans as free from health and social problems. Further, epidemiological studies of health disparities in Chinese Americans and structural factors that contribute to these disparities (economic status, genetics)[1] have not been matched by research on Chinese cultural beliefs and practices that affect disease management[9] or research on diabetes interventions adapted for Chinese Americans. Culturally adapted interventions have been tested only in small pilot projects[10] and projects developed under the CDC Racial and Ethnic Approaches to Community Health initiative (REACH 2010). Even within REACH, only 1 of 18 disease disparities programs funded nationally addressed diabetes in Asians.[11]

Family factors have powerful effects on chronic disease progression, equal to those of medical
risk factors like smoking.\cite{12, 13} Family emotional processes, including support and conflict management, exert substantial health effects.\cite{14, 15} Family factors may be particularly relevant for immigrant Chinese health outcomes because of their collectivistic social orientation, including the promotion of family well-being over personal well-being. To date, treatment programs addressing families in diabetes care have primarily focused on young families, and there has been no published family intervention research on adult patients with diabetes. Interventions with type 1 diabetes have demonstrated that behavioral interventions can improve both family relationships and biomarkers of diabetes management.\cite{16-18} However, these approaches have not been adapted to cultural family concerns and relationships in immigrant Chinese.

**Significance**

Health disparities are evident in immigrant Chinese with T2DM, a disease that presents considerable risk for increased morbidity and reduced quality of life. There are barriers to the care of T2DM in immigrant Chinese including language, disease understanding, unfamiliar models of care and potential distrust of U.S. medical systems. Even when these barriers are addressed through culturally matched health care providers, different modes of acculturating to the U.S. may make immigrants less likely to engage with or trust health care in the U.S. In managing their diabetes many immigrant Chinese patients rely heavily upon family members to interpret symptoms and construct disease management strategies. Despite this, culturally appropriate disease management approaches that incorporate family relationships are not available for use. In fact, family-based interventions with diabetes have been developed exclusively for families coping with T1DM. This project is significant because, in partnership with the immigrant Chinese patients and families who will be served, we develop a culturally appropriate, family sensitive, behavioral intervention for managing type 2 diabetes.

**Inclusion/exclusion criteria (list)**

To be included in the study, a patient must:

- be diagnosed with type 2 diabetes;
- be treated with insulin, oral medications and/or diet and exercise;
- be 21 years of age or older;
- be foreign-born and self-identify as Chinese American or Chinese, as immigrants may self-identify as either;
- identify a family member with whom s/he lives or has at least weekly contact, who is involved in care of his/her T2DM.
- be able to speak Cantonese

Exclusion criteria:

- Patients diagnosed with type 1 diabetes
- Patients with self-assessed difficulties in reading written materials in Chinese will be excluded from the study. They include those who are illiterate or have low literacy in Chinese, or those who are blind or have significant visual impairment.

**Method of contact/recruitment (be specific)**

We propose the following three methods. All of them have been approved by CHR.

1) Study will provide CHR-approved fliers to DGIM providers asking for referrals of eligible patients who may be interested in the study. Providers may give fliers to patients. If interested, the patient will call the study to inquire and screen for eligibility. Alternatively, with permission from the patient, providers may give contact information of the patient to the study. A bilingual/ bicultural research assistant (RA) of the study may then contact the patient directly about enrollment.

2) Fliers will be posted in bulletin boards in DGIM providers’ offices. Interested patients may call
the project to inquire and screen for eligibility.

3) Potentially eligible participants will be identified from DGIM providers’ databases of patients. Potential participants will receive a letter on UCSF letterhead from the study, informing them of the project and providing institutional support materials and a brief description of the goals of the project. A refusal post card will be enclosed with initial letter and potential participants are asked to return the card if they do not wish to participate. If they do not respond within 2 weeks, a RA will telephone them to describe the research. Initial letters and project materials will be sent in both English and Chinese characters. A follow-up telephone call by a bilingual/ bicultural RA will be used to screen the patient for inclusion/exclusion criteria, address questions about the proposed research and to explain the study. Initial verbal consent is obtained in that telephone call. Subsequently, 2 consent forms are mailed to potential participants with a return envelope for one to be signed and mailed back. Participants will be encouraged to telephone the project to inquire if they have any further questions about the study, after they have received the consent forms. Once participants’ language preferences are known, all correspondence will be conducted in their preferred language.

**Benefits/burden for participants (clearly identify potential for harm)**

**Benefits:**
Participants in this study are immigrant Chinese patients with type 2 diabetes. They are expected to benefit directly from the behavioral intervention by acquiring new information about diabetes management, and by acquiring bicultural skills for managing diabetes and social dilemmas that arise in managing diabetes, for managing family support and conflicts, and for navigating the US health systems as they manage diabetes.

**Burden:**
The risks to participants are loss of privacy because of research participation, potential discomfort or fear of loss of face at participation in intervention groups where discussions of positive and negative aspects of family interactions and diabetes management will take place. There may also be risks of discomfort or bruising from blood draws, which is a part of data collection.

**Any benefits or burden to DGIM practitioners?**

**Benefits:**
DGIM practitioners will benefit from knowledge generated from this research, when they become available in publications. This knowledge will pertain to effectiveness of a culturally-adapted psychosocial intervention on diabetes management for immigrant Chinese in the US. In addition, they will benefit from enhanced reputation in and learning from their active involvement in this high-profile community-based research with Chinese Americans, a population that is historically underserved and under-researched in healthcare and disproportionally affected by type 2 diabetes.

**Burden:**
There is minimal burden to DGIM practitioners. The only burdens are for practitioners to find a place in their office or the department to display recruitment fliers, to generate a list of potentially eligible patients from their databases so that the study can send recruitment letters, and/or the extra time they may spend with patients to introduce the study, if they choose to do so.

**Timeline for recruitment (projected start and stop dates)**
Ongoing until March, 2012 or when enrollment goal of 150 patients is met.

**Funding source**
National Institute of Nursing Research (NINR)
Potential for DGIM collaborators? (We encourage DGIM resident and fellow involvement in particular)
No

Do you agree to notify us when recruitment is completed?
Yes

Date form completed
November 3, 2009