CCHRC Diabetes Education Programs

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Chinese Community Health Resource Center (CCHRC)
Mission
To build a healthy community through culturally and linguistically competent programs on preventive health, disease education and management, research and advocacy.

Bilingual, Bicultural Staff/Health Educators, Volunteers and Interns
Bilingual Services and Programs

- General Health Education (Perinatal, Pediatric, Geriatric & End of-Life Care)
- Patient Navigation
- Cancer-related Information and Services
- Disease Education & Management
- Individual Counseling
- Support Groups for Care-givers (Mental Health, Dementia, Chronic Diseases, etc)
- Community Events
Bilingual Services and Programs (cont’d)

► Bilingual Library

► Providers’ Education (examples:)
  ▪ Asian Participation in Cancer Clinical Trials
    www.cchrchealth.org/multimedia/cancerclinicaltrials
  ▪ Violence Prevention & Mental Health

► Technology-based
  ▪ Bilingual websites (www.cchrchealth.org & www.teensincharge.org) - Over 150 topics
  ▪ Mobile Applications (Child Sexual Abuse Prevention)
  ▪ Basic Technology Training (PC, Smart Phone, Tablet Computer)
  ▪ Animated DVDs (Diabetes, CAD, CHF, Stroke Prevention: coming soon)

► Research & Publication

► Internships: Youth & Young Adults www.cchrchealth.org/internship

► Advocacy
Bilingual (English & Chinese) Diabetes Programs

In-Person Programs & Services
- Seminars
- Screenings
- Individual Nutrition Counseling
- Instruction on Glucometer Use
- Wellness Library (Printed & Online Materials)
- Support Groups
Effectiveness of a Culturally Tailored Diabetes Self-Management Support Group for Chinese Americans

To test the feasibility and efficacy of a diabetes self-management and education program for Chinese Americans in a support group format.

23 Chinese Americans w/ diabetes

Twelve 90-minute education sessions biweekly

Single-group, pre- post- test design

At 6 months, 42.1% had ≥1.0% A1C decrease

(Sun et al., 2012) www.cchrchealth.org/research/publications
Bilingual Diabetes Programs (cont’d)

Web-based Resources:

- **BMI Calculator**
  
  http://www.cchrchealth.org/health-calculators/body-mass-index-bmi-adults

- **Calorie Calculator**
  
  http://www.cchrchealth.org/health-calculators/calorie-calculator

- **Nutrition Analysis**
  
  http://www.cchrchealth.org/healthful-eating/nutrient-analysis

- **Grocery Shopping Tips**
  
  http://www.cchrchealth.org/healthful-eating/healthy%20choices/grocery-shopping

- **Resource Links**
  
  http://www.cchrchealth.org/resource-links-sponsors

- **Education Materials**
  
  http://www.cchrchealth.org/health/health-education-materials
Education Materials

- **Online information on Diabetes and co-morbidities** (over 35 diabetes-related topics available for download at [www.cchrchealth.org/health/health-education-materials](http://www.cchrchealth.org/health/health-education-materials) in Traditional Chinese, Simplified Chinese and English)

- **Animated videos/DVDs** (in Cantonese, Mandarin and English, produced at [http://www.cchrchealth.org/chronic-disease-education/Coronary%20Artery%20Disease](http://www.cchrchealth.org/chronic-disease-education/Coronary%20Artery%20Disease))
  - Diabetes Education and Management
  - Congestive Heart Failure
  - Coronary Artery Disease

- **Bilingual Diabetes Management Booklet (revised 2016)**
  [http://www.cchrchealth.org/health/health-education-material/diabetes](http://www.cchrchealth.org/health/health-education-material/diabetes)
Chapters include:

▶ What is Diabetes?
▶ Types of Diabetes
▶ Diagnosis, Symptoms of & Risk factors for Diabetes
▶ Complications of Uncontrolled Diabetes
▶ Management of Diabetes
▶ Low Blood Sugar and High Blood Sugar
▶ Diabetes Management During Illness
▶ Diabetic Eye, Foot & Dental Care
▶ Recommended Tests, Exams and Immunizations
Diabetes DVD Demo

Click Here to Play English DVD

Click Here to Play Chinese DVD
Bilingual (English & Chinese) Diabetes Programs

Media Education, Publications & Presentations

- **Community Media Education**
  [http://www.cchrchealth.org/media-tools/ktsf_great_family](http://www.cchrchealth.org/media-tools/ktsf_great_family)

- **Research & Publication**
  [http://www.cchrchealth.org/research/research](http://www.cchrchealth.org/research/research)

Other Publications:
[www.cchrchealth.org/research/publications](http://www.cchrchealth.org/research/publications)

Presentations at Professional Conferences:
[www.cchrchealth.org/research/Presentations](http://www.cchrchealth.org/research/Presentations)
Home-Based & Technology-Centered Childhood Obesity Prevention for Mothers with Pre-school Age Children

Aims were to

1. Develop a web-based program* for Chinese American mothers and their preschool-aged children

2. Beta/focus group -test the online program among Chinese American mothers

3. Assess feasibility of intervention

* NIH’s We Can campaign and American Academy of Pediatrics
A Randomized Control Pilot Study

**Intervention Via Tablet Computer (N=16)**
- Viewed a 30-minute video for 8 consecutive weeks on 8 different topics
- Highlighted: The 5-4-3-2-1-0 message

**Control Via Mailing (N=16)**
- Received printed health materials weekly for 8 consecutive weeks on 8 different topics
  (eg: immunization, injury prevention and school readiness)
Sample Intervention Content

Lesson Topics:
[http://www.cchrchealth.org/researchcourse/lesson1](http://www.cchrchealth.org/researchcourse/lesson1)

- Energize Your Family - *Getting Started*
- Energy Balance - *Maintain A Healthy Weight*
- What to Feed My Family - *Energy IN*
- Grocery Shopping
- Find Fun In Physical Activity - *Energy OUT*
- Less Sit, More Fit - *Decrease Screen Time*
- Smart Parenting
- Maintain A Healthy Weight for Life
5-4-3-2-1-0 Theme Song

Memorize these numbers for a healthy you and me

Click Here to Play Video
Outcome Measures

- Mothers: maternal self-efficacy, changes in eating behaviors, physical activity, child-feeding practices, BMI and waist circumference
- Children: changes in vegetable and fruit intake, physical activity, sedentary activity, and sugary drink consumption
- Outcomes assessed at baseline, immediate & 3-month post intervention
- Survey incorporated:
  - Body Shape Photo (4-item Scale)
  - CFQ= Child Feeding Questionnaire (28 items)
  - FEAHQ= Family Eating and Activity Habits Questionnaire (29 items)
Sample Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age of Children</td>
<td>4.31 Years (SD = 0.69)</td>
</tr>
<tr>
<td>Mean Maternal Age</td>
<td>36 Years (SD = 4.9)</td>
</tr>
<tr>
<td>Gender of Children</td>
<td>46.9% Female</td>
</tr>
<tr>
<td>Overweight or Obese with BMI &gt;85th Percentile based on CDC Children Growth Chart</td>
<td>37.5%</td>
</tr>
<tr>
<td>Mean Maternal BMI</td>
<td>25.0 (SD = 2.71)</td>
</tr>
<tr>
<td>Average Maternal Waist Circumference</td>
<td>33.7 Inches (SD = 2.45)</td>
</tr>
</tbody>
</table>
## Sample Characteristics (cont’d)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Control T0 (SD)</th>
<th>Intervention T0 (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Weight (lbs.)</td>
<td>132.29 (14.02)</td>
<td>139.97 (17.39)</td>
</tr>
<tr>
<td>Maternal BMI</td>
<td>24.79 (2.83)</td>
<td>25.29 (2.59)</td>
</tr>
<tr>
<td>Maternal Waist Circumference (in.)</td>
<td>33.99 (2.42)</td>
<td>33.48 (2.54)</td>
</tr>
<tr>
<td>Maternal Age</td>
<td>36.30 (4.96)</td>
<td>35.60 (4.95)</td>
</tr>
<tr>
<td>Paternal Age</td>
<td>43.31 (6.79)</td>
<td>40.67 (7.40)</td>
</tr>
<tr>
<td>Acculturation</td>
<td>1.94 (0.32)</td>
<td>1.90 (0.31)</td>
</tr>
</tbody>
</table>
### Results:
#### Effect Sizes (Intervention compared to Control Group)

<table>
<thead>
<tr>
<th>Large Effect Sizes (d= 0.8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal BMI</td>
<td>(d = 1.53)</td>
</tr>
<tr>
<td>Maternal Self-Efficacy for Promoting Healthy Eating</td>
<td>(d = 0.99)</td>
</tr>
<tr>
<td>Maternal Waist Circumference (inches)</td>
<td>(d = 0.88)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Moderate Effect Sizes (d= 0.5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Eating Behavior</td>
<td>(d = 0.79)</td>
</tr>
<tr>
<td>Girl Body Image</td>
<td>(d = 0.72)</td>
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</tbody>
</table>
Limitations

- Small sample size
- Short-term follow up
- Self-reported measures

Acknowledgments

- The Safeway Foundation
- University of California, San Francisco - Department of Family Health Care Nursing
- Kai Ming Head Start
- Quynh Bui, MD
- Jyu-Lin Chen, PhD, RN, CNS, FAAN
Conclusion: Achieving Patient Centered Diabetes Care

- Team approach
- Cultural sensitivity
- Partnership
- Patient centered delivery method for messages
- Patient empowerment
- Effective communication
- Family involvement and social support
Acknowledgements

- CCHRC Board of Directors
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- Community Partners
- Funders
THANK YOU!