

CCHRC Diabetes Education Programs

Angela Sun, PhD, MPH

Executive Director

Chinese Community Health Resource Center(CCHRC)

CCHRC - Part of the Chinese Hospital Health System

- ▶ 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 Information and Services
- ▶ Disease Education & Management

Bilingual Services and Programs (cont'd)

- ▶ Individual Counseling
- ▶ Community Events
- ▶ Bilingual Library
- ▶ Research & Publication
- ▶ Advocacy

Bilingual (English & Chinese) Diabetes Programs

In-Person Programs & Services

- ▶ Seminars
- ▶ Screenings
- ▶ Individual Nutrition Counseling
- ▶ Instruction on Glucometer Use
- ▶ Education Materials/ Wellness Library
- ▶ 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

```
graph TD; A[23 Chinese Americans w/diabetes] --> B[Twelve 90-minute education sessions]; B --> C[Single-group, pre- post- test design]; C --> D[At 6 months, 42.1% had ≥1.0% A1C decrease];
```

Twelve 90-minute education sessions

Single-group, pre- post- test design

At 6 months, 42.1% had $\geq 1.0\%$ A1C decrease

Bilingual Diabetes Programs (cont'd)

Web-based Resources:

► BMI

<http://www.cchrhealth.org/health-calculators/body-mass-index-bmi-adults>

► Calorie Calculator

<http://www.cchrhealth.org/health-calculators/calorie-calculator>

► Nutrition Analysis

<http://www.cchrhealth.org/healthful-eating/nutrient-analysis>

► Grocery Shopping Tips

<http://www.cchrhealth.org/healthful-eating/healthy%20choices/grocery-shopping>

► Resource Links

<http://www.cchrhealth.org/resource-links-sponsors>

► Education Materials

<http://www.cchrhealth.org/health/health-education-materials>

www.cchrhealth.org

華人社區健康資源中心
CHINESE COMMUNITY HEALTH RESOURCE CENTER

HOME HELP | 简体中文 繁體中文 ENGLISH

Ingredients Dishes

American Chinese Italian Japanese Mexican Others

Duck with Prawn Rounds Honey Walnut Prawns Lychee and Prawns Prawn and Egg Chow Mein

Honey Walnut Prawns

1 cup

Total Calories (kcal)	648.91
Total Fat (g)	47.22
Saturated Fat (g)	5.4
Cholesterol (mg)	177.04
Sodium (mg)	579.51
Total Carbohydrate (g)	28.49
Dietary Fiber (g)	1.16
Protein (g)	28.94
Vitamin C (mg)	4.25
Vitamin A (IU)	243.15
Calcium (mg)	91.11

TOTAL IN PAN & DAILY %

	Total in dish	Daily %
Total Calories (kcal)	648.91	28
Total Fat (g)	47.22	62
Saturated Fat (g)	5.4	21
Cholesterol (mg)	177.04	59
Sodium (mg)	579.51	25
Total Carbohydrate (g)	28.49	9
Dietary Fiber (g)	1.16	4
Protein (g)	28.94	34
Vitamin C (mg)	4.25	5
Vitamin A (IU)	243.15	8
Calcium (mg)	91.11	8

Clear

Sex: Male
Age: 55
Activity Level: Moderate

Education Materials

- ▶ *Online information on Diabetes and co-morbidities (over 35 pdf files available for download at www.cchrhealth.org/health/health-education-materials in Traditional Chinese, Simplified Chinese and English)*
- ▶ *Bilingual Diabetes Management Booklet (revised 2016)*
<http://www.cchrhealth.org/health/health-education-material/diabetes>
- ▶ *Animated videos/ DVDs (in Cantonese, Mandarin and English, produced <http://www.cchrhealth.org/chronic-disease-education/Coronary%20Artery%20Disease>)*
 - ❖ *Diabetes Education and Management*
 - ❖ *Congestive Heart Failure*
 - ❖ *Coronary Artery Disease*

Bilingual Diabetes DVD <http://www.cchrhealth.org/chronic-disease-education/Diabetes> and Booklet <http://www.cchrhealth.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

English

Chinese



[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.cchrhealth.org/media-tools/ktsf_great_family

▶ Research & Publication

<http://www.cchrhealth.org/research/research>



Other Publications:

www.cchrhealth.org/research/publications

Presentations at Professional Conferences:

www.cchrhealth.org/research/Presentations



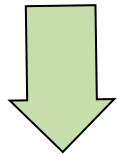
Home-Based & Technology-Centered Childhood Obesity Prevention for Mothers with Pre-school Age Children

Aims

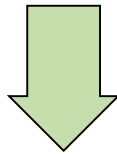
- ▶ 1. Adapt existing web-based program for Chinese American mothers and their preschool-aged children
- ▶ 2. Beta-test the adapted online program among Chinese American mothers
- ▶ 3. Assess feasibility of intervention

A Randomized Control Study

Intervention Via Tablet
Computer (N=16)

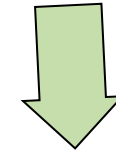


Viewed a 30-minute video for
8 consecutive weeks on 8
different topics



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)

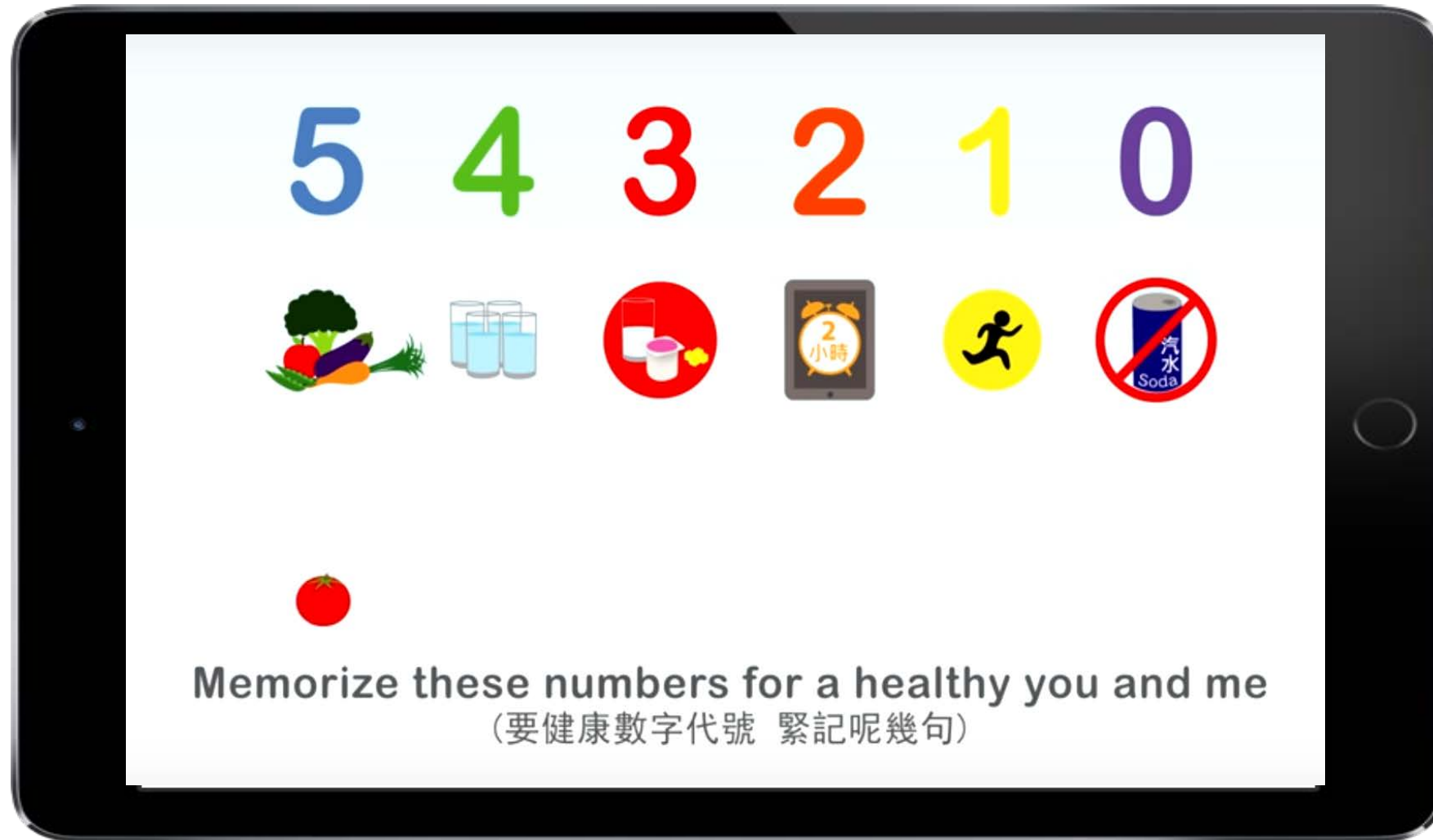
Sample Intervention Content

Lesson Topics:

<http://www.cchrchealth.org/researchcourse/lesson1>

- 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



[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:
 - ▶ CFQ= *Child Feeding Questionnaire*
 - ▶ FEAHQ= *Family Eating and Activity Habits Questionnaire*

Sample Characteristics

Mean Age of Children	4.31 Years (SD = 0.69)
Mean Maternal Age	36 Years (SD = 4.9)
Gender of Children	46.9% Female
Overweight or Obese with BMI >85 th Percentile based on CDC Children Growth Chart	37.5%
Mean Maternal BMI	25.0 (SD = 2.71)
Average Maternal Waist Circumference (in.)	33.7 Inches (SD = 2.45)

Sample Characteristics (cont'd)

Variables	Control T0 (SD)	Intervention T0 (SD)
Maternal Weight (lbs.)	132.29 (14.02)	139.97 (17.39)
Maternal BMI	24.79 (2.83)	25.29 (2.59)
Maternal Waist Circumference (in.)	33.99 (2.42)	33.48 (2.54)
Maternal Age	36.30 (4.96)	35.60 (4.95)
Paternal Age	43.31 (6.79)	40.67 (7.40)
Acculturation	1.94 (0.32)	1.90 (0.31)

Results

Mixed-model analysis indicated that significantly more of the mothers in the intervention group

- ▶ Decreased waist circumference ($F=6.6$, $p=.005$)
- ▶ Increased confidence for promoting healthy eating at home ($F=4.9$, $p=.023$)

Results (cont'd):

Effect Sizes (Intervention compared to Control Group)

Large Effect Sizes (d= 0.8)

Maternal BMI	(d = 1.53)
Maternal Self-Efficacy for Promoting Healthy Eating	(d = 0.99)
Maternal Waist Circumference (inches)	(d= 0.88)

Moderate Effect Sizes (d= 0.5)

FEAHQ Eating Style- Maternal	(d= 0.79)
Girl Body Image	(d= 0.72)

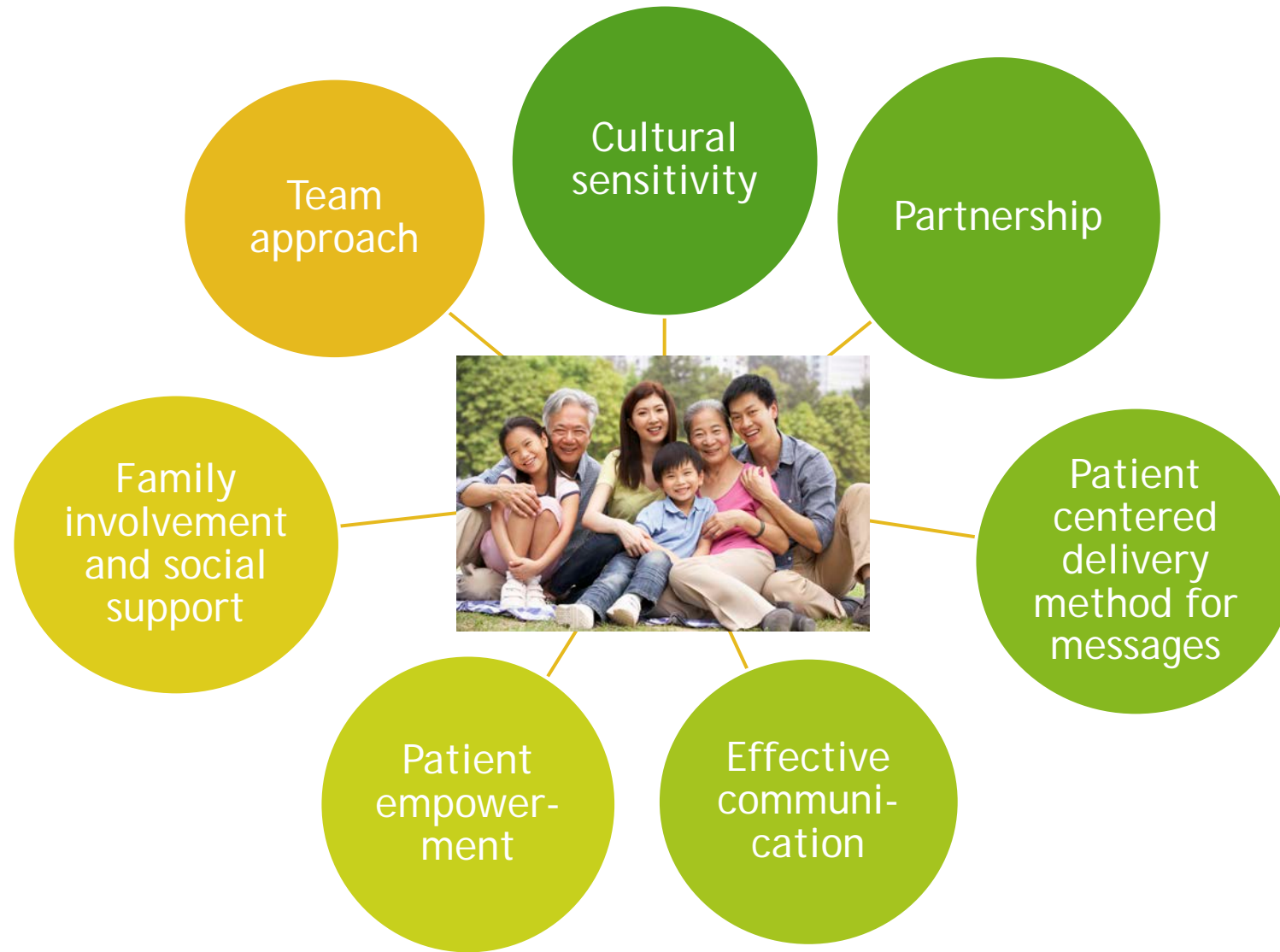
Limitations

- ▶ 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



Acknowledgements

- ▶ CCHRC Board of Directors
- ▶ CCHRC Staff, Interns and Volunteers
- ▶ Academic Partners
- ▶ Community Partners

THANK YOU!