Building Capacity Through Culturally Competent Chronic Disease Trainings for Community Health Workers

Department of Native Hawaiian Health
Pacific Global Health Conference
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Agenda

- Learning Objectives
- Introduction
- Curriculum Development
- Research Design
- Results
- Impacts
- Questions
Learning Objectives

- Building individual, community and workforce capacity in Native Hawaiian and Other Pacific Islander (NHOPI) communities is important.

- Understand how a culturally-relevant and community-based educational approach to train CHW’s is meaningful and effective.
Introductions

- NHOPI Health Risks
  - Number of factors, alone or in combination, contribute to disparities
    - High rates of CVD, hypertension, diabetes
    - Lower socioeconomic status
    - Under representation in higher education
    - Increased marginalization
    - Behavioral risk factors
      - Tobacco, alcohol and other drug use
      - Obesity
      - Psychological distress
    - Historical relations with Western governments

Mau et al. 2009 Epidemiologic Reviews
Community Health Workers

- 2010 CHW official job classification
- Demographics
  - Older, minority, women
  - Smaller organizations
  - Com Centers, clinics, hospitals
  - SES, prevention, lifestyle, & maternal care
- Promising Outcomes
  - Access
  - Community empowerment
  - Quality of care & compliance
  - Costs
  - Care management

Rosenthal et al. 2011 J Ambulatory Care Manage
Rosenthal et al. 2010 Health Affairs
Evidence of Success

- Minority populations
- Different Methodologies
  - E.g. RCT
- Results
  - Heart Disease
  - Stroke
  - Self-management behaviors
    - Appointments
    - Medication adherence
  - Heart mass
  - Risk of CVD- hypertension
  - Access
- More training & sustainable funding

Brownstein et al. 2007 Am J Preventive Med
Brownstein et al. 2005 Am J Preventive Med
Seminars and Curriculum

<table>
<thead>
<tr>
<th>Classes</th>
<th>Attendees</th>
<th>Seminars</th>
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<tbody>
<tr>
<td>Diabetes 101</td>
<td>385</td>
<td>28</td>
</tr>
<tr>
<td>Heart 101</td>
<td>162</td>
<td>9</td>
</tr>
<tr>
<td>Kidney 101</td>
<td>61</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>608</strong></td>
<td><strong>42</strong></td>
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</table>

- 3 modules, 5 hours, 2 days
- Culturally based
  - Teaching strategies
  - Activities & homework
  - Materials
- Multidisciplinary teaching team
- Pre/post-seminar & 6-month post-seminar retention knowledge test
Results:
Changes in Cardiometabolic Knowledge, Capacity-Building

<table>
<thead>
<tr>
<th></th>
<th>Diabetes 101</th>
<th>Heart 101</th>
</tr>
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<tbody>
<tr>
<td>n</td>
<td>124</td>
<td>30</td>
</tr>
<tr>
<td>Total # of Questions</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Mean Pretest</td>
<td>10.05</td>
<td>11.00</td>
</tr>
<tr>
<td>Mean Posttest</td>
<td>12.67</td>
<td>14.77</td>
</tr>
<tr>
<td>Mean Difference (SD)</td>
<td>2.62 (0.26)*</td>
<td>3.77 (0.41)*</td>
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</table>

*P < 0.0001
## Demographic Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Pre/Post-Seminar Count (%)</th>
<th>6mn Post-Seminar Count (%)</th>
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<tbody>
<tr>
<td><strong>n</strong></td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>9 (30)</td>
<td>4 (20)</td>
</tr>
<tr>
<td>Female</td>
<td>21 (70)</td>
<td>16 (80)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-30 years</td>
<td>5 (16.67)</td>
<td>3 (15)</td>
</tr>
<tr>
<td>30-50 years</td>
<td>12 (40)</td>
<td>9 (45)</td>
</tr>
<tr>
<td>&gt;50 years</td>
<td>13 (43.33)</td>
<td>8 (40)</td>
</tr>
<tr>
<td><strong>Years of Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-1 years</td>
<td>3 (10)</td>
<td>1 (5)</td>
</tr>
<tr>
<td>1-2 years</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>2-5 years</td>
<td>5 (16.67)</td>
<td>4 (20)</td>
</tr>
<tr>
<td>&gt; 5 years</td>
<td>22 (73.33)</td>
<td>15 (75)</td>
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</table>
H 101 Demographics

Figure 1: Ethnic Composition of Heart 101
H 101 Knowledge Retention

Mean Test Scores for Heart 101 Trainings

- Pre-Seminar Test: 12.1
- Post-Seminar Test: 14.75*
- 6-Month Post-Seminar Test: 14.15**

*P<.0001
**P<.0008
n=20
Impact

Culturally Appropriate Trainings

- Further integration of CHWs
- Patient Knowledge
- Community Outreach
- Serve minority/high risk populations
- Community Education
- Self-Sufficiency

Serve minority/high risk populations
Mahalo

Ulu Network
Mele Look
Chace Moleta
Michelle Quensell

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