Pilot-testing a Cancer 101 Education Curriculum with the Fairbanks Native Association’s Women & Children’s Center for Inner Healing

Ciara Villalobos, Ellen D. S. Lopez, James Billings, Freda M. Williams

Rationale & Introduction

Cancer is the leading cause of death among Alaska Native people. Nevertheless, due to improved awareness about cancer prevention, early detection, screening and advances in treatment, survival rates are rising. Alaska Native communities describe cancer as an epidemic: wondering “Who will be next?” Community members and their leaders have voiced their desires to gain accurate, user-friendly cancer-focused information that they can share with their family, friends, and communities. In response, this study pilot-tested the feasibility, content, and knowledge impact of an evidence-based Community-based curriculum.

Cancer 101: Cancer Education & Training Program for American Indians & Alaska Natives

Purpose: To provide a feasible, and culturally relevant cancer resource aimed at improving knowledge, attitudes, and social interaction Developed to be: Evidence- and community-based

Program comprises 10 educational modules:

- Facilitator’s manual
- Adaptable PowerPoint slides
- Pre- and post-intervention evaluation questions

Modules focus on:

- Cancer among Native Populations
- What’s Cancer?
- Risk Factors & Risk Reduction
- Role of Genes in Cancer
- Screening & Early Detection
- Chronic Conditions & Cancer
- Supporting Survivors & Caregivers
- Chronic Disease & Cancer
- Cancer Diagnosis & Staging
- Early Detection

Findings: Group Discussion

How helpful or worthwhile was Cancer 101?
- Participants found the training to be helpful & an “eye-opening” experience
- All expressed interest in exploring other 101 modules
- Participants felt their knowledge increase was not reflected by the evaluation questions posed in the pre- & post surveys

“I know people living with cancer or that already passed. Now I feel more knowledgeable & educated.”

How can we improve Cancer 101?
- Participants positively described Cancer 101 as being “fun,” “interesting,” “informative,” & “helpful.”
- Suggestions for improvement included: new topics (e.g., childhood cancers), more opportunities for participation, & presenting content in greater depth & detail

How have/will you used Cancer 101 information?
- Most participants have or planned to share Cancer 101 information with others.
- “I do plan on sharing it with family & friends”
- Several showed interest in further training to become “cancer natural helpers” – persons to whom others turn for cancer information & support.

Implications

Participants provided positive feedback about Cancer 101. Implications: Cancer 101 is feasible & user-friendly. Knowledge change from pre- to post-test was not statistically significant. Participant pre-test scores imply a ceiling effect – possibly attributed to overly easy & broad evaluation questions. Implications: Adapt evaluation measures to reflect detail & depth of information conveyed.

Participants provided constructive feedback about Cancer 101. Implications: Continue adapting cancer 101 material to be locally relevant. Test full (10 module) curriculum with larger population of participants.

Findings: Pre & Post-Intervention Knowledge

### Characteristics at Baseline

<table>
<thead>
<tr>
<th>Characteristic at Baseline</th>
<th>% (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>100 (9)</td>
</tr>
<tr>
<td>Age (years), range (mean)</td>
<td>23.70 (34)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>44.4 (4)</td>
</tr>
<tr>
<td>Alaska Native</td>
<td>66.7 (6)</td>
</tr>
<tr>
<td>Yup’ik</td>
<td>23.3 (2)</td>
</tr>
<tr>
<td>Athabascan</td>
<td>30.0 (3)</td>
</tr>
<tr>
<td>Inupiaq</td>
<td>66.7 (2)</td>
</tr>
<tr>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>11.1 (1)</td>
</tr>
<tr>
<td>High school/GED</td>
<td>55.6 (5)</td>
</tr>
<tr>
<td>Some college</td>
<td>33.3 (3)</td>
</tr>
<tr>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Struggle meet needs</td>
<td>77.8 (7)</td>
</tr>
<tr>
<td>Have enough</td>
<td>22.2 (2)</td>
</tr>
<tr>
<td>Health Status (self-reported)</td>
<td></td>
</tr>
<tr>
<td>Very good/Good</td>
<td>77.8 (7)</td>
</tr>
<tr>
<td>Fair</td>
<td>22.2 (2)</td>
</tr>
<tr>
<td>Association with Cancer</td>
<td></td>
</tr>
<tr>
<td>Cancer caregiver</td>
<td>33.3 (7)</td>
</tr>
<tr>
<td>Family member with cancer</td>
<td>88.9 (8)</td>
</tr>
<tr>
<td>Friend with cancer</td>
<td>55.6 (5)</td>
</tr>
<tr>
<td>Interested in cancer</td>
<td>77.8 (7)</td>
</tr>
</tbody>
</table>

### Learning Module

<table>
<thead>
<tr>
<th>Learning Module</th>
<th>Pre-test Correct Answers Mean (SD)</th>
<th>Post-test Correct Answers Mean (SD)</th>
<th>Change in Correct Answers Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer Risk Factors</td>
<td>3.71 (0.95)</td>
<td>3.86 (1.35)</td>
<td>0.14 (6.9)</td>
</tr>
<tr>
<td>Early Detection</td>
<td>3.29 (0.95)</td>
<td>4.0 (1.28)</td>
<td>0.71 (1.11)</td>
</tr>
<tr>
<td>Chronic Conditions &amp; Cancer</td>
<td>4.23 (0.49)</td>
<td>4.43 (0.98)</td>
<td>0.14 (90)</td>
</tr>
<tr>
<td>Supporting Survivors &amp; Caregivers</td>
<td>3.86 (28)</td>
<td>4.71 (49)</td>
<td>0.86 (38)**</td>
</tr>
</tbody>
</table>

### Methods/Procedures

- Introductions
- Consent
- Pre-Survey
- 4 Cancer 101 Modules
- Post-Survey
- Discussion Group

### Results: Group Discussion

- **Introduction**
  - **Objective:** To provide a flexible, and culturally relevant cancer resource aimed at improving knowledge, attitudes, and social interaction.
  - **Population:** Evidence- and community-based.

- **Program Design:**
  - **Facilitator’s manual:**
  - **Adaptable PowerPoint slides:**
  - **Pre- and post-intervention evaluation questions:**

- **Modules Focus on:**
  - Cancer among Native Populations
  - What’s Cancer?
  - Risk Factors & Risk Reduction
  - Role of Genes in Cancer
  - Screening & Early Detection
  - Chronic Conditions & Cancer
  - Supporting Survivors & Caregivers
  - Chronic Disease & Cancer
  - Cancer Diagnosis & Staging
  - Early Detection

- **Findings:**
  - **Pre & Post-Intervention Knowledge**

### Cited References

1. Kelly, et al., 2012
3. Hill, et al., 2010
5. WCCIH Website: http://www.fairbanksnative.org/wccih.html

We Express our Gratitude to:

- The Women & Children’s Center for Inner Healing
- Our Cancer 101 participants
- UAF College of Liberal Arts for their generous funding
- Tamara Fletcher for her unyielding support

For more information, please contact:
- Ciara Villalobos: civillalobos@alaska.edu
- Ellen D. S. Lopez: edlopez@alaska.edu

The mission of WCCINH is to assist women & their children through recovery, healing, healthy lifestyle & enhanced cultural pride.

Participants provided positive feedback about Cancer 101.

- **Implications:**
  - Cancer 101 is feasible & user-friendly.
  - Knowledge change from pre- to post-test was not statistically significant.
  - Participant pre-test scores imply a ceiling effect – possibly attributed to overly easy & broad evaluation questions.

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**Characteristics at Baseline**

- **Gender**
  - Female: 100 (9)
  - Age: 23.70 (34)
  - Race/Ethnicity: White (44.4), Alaska Native (66.7), Yup’ik (23.3), Athabascan (30.0), Inupiaq (66.7)
  - Income: Less than high school (11.1), High school/GED (55.6), Some college (33.3)
  - Health Status: Very good/Good (77.8), Fair (22.2)

**Results: Group Discussion**

- **Intervention Impact on Knowledge for 4 Modules**

**Design:** Quasi-experimental, single (pre-post intervention) group, using mixed-methods (quantitative & qualitative)

- * Introductions
- * Consent
- * Pre-Survey
- * 4 Cancer 101 Modules
- * Post-Survey
- * Discussion Group