ACCESS TO AND USE OF CELL PHONES FOR HEALTH INFORMATION BY TRIBAL COLLEGE STUDENTS IN MONTANA

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Place: Dublin, Ireland
RANDOMIZED CONTROLLED TRIAL OF MOBILE PHONE TEXT MESSAGING FOR SMOKING CESSATION

• The goal of the study is to use a culturally tailored text messaging-based smoking cessation intervention to increase the quit rate among American Indians.

• The intervention will be a randomized, controlled trial among approximately 1000 American Indians students in tribal colleges and universities.
RATIONALE/IMPORTANCE

• Tobacco use in the American Indian (AI) population is extremely high; 42.3% of AI and Alaska Native males reported smoking in 2008, compared to 25.5% of African American and 23.6% of Caucasian males.

• Mobile communications technology has become a popular mechanism for delivery of health information.

• Successful models for using text messaging for tobacco cessation exist.

• Limited data about the availability of cell phones and technology access OR the acceptability of electronic media for health promotion in tribal communities.

• Preliminary investigation to an intervention study that would use text messaging for tobacco cessation in AI tribal college students.
STOMP  
(*ST*op smoking *O*ver *M*obile *P*hone*)

- STOMP sends smokers trying to quit a series of personalized text messages over 26 weeks.

- Developed in Australia and used effectively with Maori and non Maori populations

- Clinical trials have shown that using STOMP doubled reported quit rates from 13 percent to 28 percent after six weeks.
Tribal Colleges and Universities

Source: http://www.aihec.org/who-we-serve/map.htm

integrity | caring | altruism | social justice | maximizing health potential

WASHINGTON STATE UNIVERSITY COLLEGE OF NURSING
Montana Tribal Lands

Fort Peck Community College - Poplar/Wolf Point

Little Big Horn College - Crow Agency

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WASHINGTON STATE UNIVERSITY COLLEGE OF NURSING
Fort Peck Community College
Poplar/Wolf Point, MT
Little Big Horn College
Crow Agency, MT

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WASHINGTON STATE UNIVERSITY COLLEGE OF NURSING
TRADITIONAL VS COMMERCIAL TOBACCO USE IN INDIAN COUNTRY

TRADITIONAL TOBACCO

“Traditional tobacco is a gift from Mother Earth. It should be respected and used properly just like sweetgrass, sage, and cedar. Tobacco is a Medicine used by our people to pray with. It provides us with spiritual strength, guidance, discipline and protection. You should never abuse such a gift.”

- Not inhaled
- Sacred, Ceremonial
- Social, Binding of contracts
- Generosity, Reciprocity, Gift
- Curative, Medicinal

COMMERCIAL TOBACCO

Commercial tobacco, on the other hand, is used recreationally, individually and habitually. Tobacco companies have long used American Indian images and targeted this population group in order to sell their deadly product.

- Inhaled
- Not sacred
- Easy
- Addictive
- Processed
- Disrespectful to others
- Disease inducing

BACKGROUND

• Research team questioned the assumptions that cell phone and internet access and use for Montana TCU students was similar to non Native students and young adults

• Preliminary investigation was to assess the availability and use of cell phones for health education and promotion purposes in two tribal college communities in Montana.

• Explore access and student perceptions across student sex, age and rurality as measured by the colleges’ University of Washington Rural Urban Community Area Codes (RUCA) code designations.
METHODS

- A 22 question paper and pencil survey was developed by the research team.
- The survey included questions about
  - computer and cellphone availability and use
  - interest in receipt of health information data and messages via text or e-mail
  - demographics (including age, gender and race), and
  - tobacco use and age of initiation.
We are looking for ways to communicate with tribal college students about health and health-related behaviors. Your answers will help us understand how best to communicate with students like yourself on health projects we may conduct with your school or community. In the sections below, we ask about your use of computers, internet, email, cell phones, and—especially—with some questions about yourself. Your answers are confidential. Thank you for your time.

SECTION 1. This section asks questions about computer use. Please choose only one answer for each question.

1. Do you have access to a computer?
   - Yes, every day
   - Yes, but not every day
   - No → Go to SECTION 2

2. When you want to use a computer is it...?
   - Easily accessible at any time
   - Accessible for a few hours every day
   - Not accessible every day

SECTION 2. This section asks questions about computer, cellphone, and internet use. Please choose only one answer for each question.

3. Do you have a cell phone?
   - Yes, I have a monthly plan
   - Yes, I have a pre-paid phone
   - No → Go to SECTION 4

4. Would you be interested in participating in a health research project that used text messaging to stop smoking?
   - Yes
   - No

5. Can you access the internet on your phone?
   - Yes, easily
   - Yes, but it's too slow to use easily
   - Yes, but only in some locations
   - No
SITE DEVELOPMENT & INCLUSION CRITERIA

• Two tribal colleges (Fort Peck Community College and Little Big Horn College in eastern Montana) were invited to participate.

• TCUs provided space for data collection in areas near cafeterias and administrative areas on campus.

• Tribal college student workers were hired to assist the research team, which included AI faculty and consultant, to recruit participants.

• Participant inclusion criteria
  • A part or full time student
  • 18 years of age or older.
DATA COLLECTION

• The paper and pencil survey took approximately 10 minutes to complete.
• Participants received a $10 bill when they turned in the completed survey.
• Two hundred paper and pencil surveys were completed in December of 2013.
• Despite verbal screening, 31 respondents reported they were not college students and one college student was 17 years of age.
• Analysis was conducted on the surveys from 168 qualified participants.
## PARTICIPANT DEMOGRAPHICS

<table>
<thead>
<tr>
<th></th>
<th>N = 168</th>
<th>%</th>
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<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>28.4</td>
<td>n/a</td>
</tr>
<tr>
<td>Mode</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Range</td>
<td>18–64 years</td>
<td>n/a</td>
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<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>76</td>
<td>45.2</td>
</tr>
<tr>
<td>Female</td>
<td>91</td>
<td>54.2</td>
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<tr>
<td>Missing</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AI/AN</td>
<td>153</td>
<td>91.1</td>
</tr>
<tr>
<td>White</td>
<td>12</td>
<td>7.1</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Residency (RUCA)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Rural</td>
<td>83</td>
<td>49.4</td>
</tr>
<tr>
<td>Isolated Small Rural</td>
<td>85</td>
<td>50.6</td>
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<tr>
<td><strong>General Health</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fair</td>
<td>19</td>
<td>11.3</td>
</tr>
<tr>
<td>Good</td>
<td>51</td>
<td>30.4</td>
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<tr>
<td>Very Good</td>
<td>59</td>
<td>35.1</td>
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<tr>
<td>Excellent</td>
<td>39</td>
<td>23.2</td>
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RURAL URBAN COMMUNITY AREA (RUCA) CODES

- Rural Health Research Center at the University of Washington developed the RUCA codes
- The codes to designate communities based on the size of the community and resident commuting status for resources including health care access
- Categorizations range from urban to isolated small rural towns
- About ½ of the respondents were at the Fort Peck Community College community designated as “small rural”, and the other half at the Little Big Horn community “isolated small rural”
## PARTICIPANT TOBACCO USE

<table>
<thead>
<tr>
<th>Cigarette User</th>
<th>No</th>
<th>105</th>
<th>62.5</th>
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</thead>
<tbody>
<tr>
<td>Yes &gt; 1 pack per day</td>
<td>3</td>
<td></td>
<td>1.8</td>
</tr>
<tr>
<td>Yes &lt; one pack per day</td>
<td>18</td>
<td></td>
<td>10.7</td>
</tr>
<tr>
<td>Yes &lt; ½ pack per day</td>
<td>42</td>
<td></td>
<td>25</td>
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<tr>
<td>Total smokers</td>
<td>63</td>
<td></td>
<td>38.5</td>
</tr>
</tbody>
</table>

### Age Started Smoking
- **Mean**: 16.02
- **Mode**: 18
- **Range**: 8 – 36 years

### Number of Stop Smoke attempts
- **Mean**: 4.25
- **Mode**: 1
- **Range**: 0 - 50

0 (never) | 10 | 6
TOBACCO USE

• Above the 26.1% reported for all American Indians in the 2013 National Health Interview Survey
• Comparable to other reported studies
• 101 (60%) of 168 participants tried tobacco at one point
  • 91 (90%) tried by 18 years of age
  • Mean age of initiation was 16 years

Native Language Program at Crow
<table>
<thead>
<tr>
<th>Category</th>
<th>Response</th>
<th>N</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Access to computer</td>
<td>Yes every day</td>
<td>109</td>
<td>64.9</td>
</tr>
<tr>
<td></td>
<td>Yes but not everyday</td>
<td>52</td>
<td>31.0</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>6</td>
<td>3.6</td>
</tr>
<tr>
<td>Access to Cell Phone &amp; Plan</td>
<td>Yes monthly or prepaid plan</td>
<td>146</td>
<td>86.9</td>
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<td></td>
<td>No cell phone</td>
<td>22</td>
<td>13.1</td>
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<tr>
<td>Internet on Phone</td>
<td>Yes easily accessible</td>
<td>73</td>
<td>43.5</td>
</tr>
<tr>
<td></td>
<td>Yes but limited by location or speed</td>
<td>43</td>
<td>25.6</td>
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<td></td>
<td>No</td>
<td>29</td>
<td>17.3</td>
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<tr>
<td>Unlimited Text on Phone</td>
<td>Yes</td>
<td>136</td>
<td>81.0</td>
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<tr>
<td></td>
<td>No</td>
<td>10</td>
<td>6.0</td>
</tr>
</tbody>
</table>
ACCESS AND USE

• 109 (65%) had access to a computer everyday
• 124 (74%) reported spending one or more hours per day on the internet
• 146 (87%) had cell phones
• 116 (70%) had cell phones with internet access
  • of those about 37% stated their internet access was only accessible in some locations and/or it was too slow to use.
• 136 (81%) had unlimited text messaging on their phone
USE OF COMPUTER OR CELL PHONE FOR HEALTH INFORMATION

• Would use frequently or sometimes for
  • Appointment Scheduling - 41.6%
  • Health info or questionnaires - 62%

• Preferred media for
  • Appointment scheduling - Text message
  • Health Behavior survey - Email
  • Health Screening & vaccine reminders - Email
We asked the 62 tobacco using participants about their interest in participating in a research project using text messaging.

- 29 (46%) said yes
- 21 (33.3%) said no
- 12 (19%) did not respond

Recruitment Challenge
CELL PHONE AND INTERNET ACCESS BY SITE

• Significantly fewer students at the “small rural” college reported having cell phones and internet on their cell phones.

• We would have expected the “isolated, small rural” to have less access.

Postulated that poverty, unemployment and income levels differ by site.
INTERNET PHONE ACCESS AND UNLIMITED TEXT MESSAGING

• Significantly fewer participants under age 23 had internet on their phones.

• Significantly fewer participants under age 23 had unlimited text messaging.

Postulated that younger students cannot afford packages with more options and access.

Concerning in light of age of tobacco initiation.
WHAT WAS LEARNED

• TCU students reported less access to computers and cell phones than other undergraduate or community college students

• Internet and cellphone use and access varies from community to community

• Use of internet and cell phones for health promotion and education purposes must be carefully considered in rural settings.
THANK YOU

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• 509-324-7261

Fancy Shawl Dance by women at Crow Fair