HELPING CANCER SURVIVORS TO END TOBACCO USE AND IMPROVE HEALTH OUTCOMES

Today’s R2R Cyber-seminar will begin at 2 PM ET

WebEx can call you at the number of your choice, or call your computer.

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You can also dial in manually:
1-855-244-8681
Access code: 733 723 753
HELPING CANCER SURVIVORS TO END TOBACCO USE AND IMPROVE HEALTH OUTCOMES

Research to Reality Cyber-Seminar Series August 2016

http://researchtoreality.cancer.gov
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Helping Cancer Survivors to End Tobacco Use and Improve Health Outcomes

Jennifer Irvin Vidrine, Ph.D.
Peggy and Charles Stephenson Endowed Chair in Cancer
Deputy Director for Tobacco Research and
Director, Oklahoma Tobacco Research Center
Stephenson Cancer Center
Associate Professor, Department of Family and Preventive Medicine
The University of Oklahoma Health Sciences Center

Diana Stewart Hoover, Ph.D.
Assistant Professor
Department of Health Disparities Research
The University of Texas MD Anderson Cancer Center
Current NCI-funded Project

Smoking Cessation for Cervical Cancer Survivors in a Safety Net Healthcare System

R01CA172786 (PI: Vidrime; Co-I: Hoover)
Background & Rationale

- In the presence of HPV, smoking a primary risk factor for cervical cancer
  - Cervical cancer preventable since Pap test introduced in 1950s
  - Over 12,000 new cases diagnosed; > 4,200 women die each year

- Profound disparities in incidence and mortality:
  - Incidence 39% higher among African American women
  - Incidence 80% higher among Latina women
  - Mortality higher among African American and Latina women

- African American, Latina, and low SES women suffer disproportionate health consequences of smoking and have greater difficulty quitting

- Tremendous disparities in cervical cancer incidence and mortality and in the health consequences of smoking
Background & Rationale

- 44% to 48% of cervical cancer survivors smoke
  - Smoking prevalence 3x higher than in general population of cancer survivors

- Continuing to smoke after diagnosis associated with increased risk of cancer recurrence, second primary cancers, other smoking-related morbidities

- Cervical cancer survivors have higher risk of subsequent malignancy compared to survivors of other cancers

- Tobacco treatment a crucial part of survivorship care planning
Motivation And Problem Solving (MAPS)

- Holistic, dynamic framework for behavior change
- Utilizes a combined motivational enhancement and social cognitive approach
- Specifically targets change mechanisms on a moment-to-moment basis
- Designed for all individuals regardless of their motivation or phase of the change process
- “Wellness program” addresses issues prevalent among low-SES individuals
- Telephone-based for easy dissemination to population-based public health settings (e.g., Quitlines, 211, healthcare systems)

Motivation and Problem-Solving Treatment (MAPS)

TREATMENT MECHANISMS

Motivational Constructs
- Motivation to attempt, achieve, and maintain abstinence
- Intrinsic motivation

Relapse Prevention Constructs
- Self-efficacy
- Coping behavior

Stress and Negative Affect
- Daily life stress (e.g., financial, life, parenting)
- Negative affect

SMOKING ABSTINENCE
Specific Aims

1. Compare the efficacy of a MAPS approach to promoting and facilitating smoking cessation to ST among cervical cancer survivors

2. Assess the effects of MAPS on hypothesized treatment mechanisms (motivation, agency, and stress/negative affect) and the role of those mechanisms in mediating MAPS effects on abstinence

3. Compare the cost-effectiveness of MAPS and ST
Study Design & Procedures

• In-depth individual interviews with female smokers with cervical cancer diagnosis (N=12)

• RCT (N=300)
  • Randomly assigned to 1) Standard Treatment (ST), or 2) MAPS
    • ST will consist of a mailed packet of materials including a letter referring smokers to the Oklahoma Helpline, free nicotine patch when ready to quit, and standard self-help materials
    • ST will be mailed a total of 3 times (baseline, 6, 12 months)
    • MAPS will consist of ST plus 6 proactive telephone counseling sessions delivered over 12 months

• Primary outcome is smoking abstinence at 18 months
In-Depth Interview Procedures

- In-depth individual interviews conducted with female smokers with cervical cancer to elucidate smoking cessation treatment needs (10 of 12 completed to date)
  - Formative step in adapting MAPS for use in this population

- Potential participants identified through electronic chart review at Stephenson Cancer Center and contacted by phone and screened for eligibility
  - >18 years
  - Current smoker (>100 lifetime cigarettes, self-report of smoking every day or some days)
  - History of cervical cancer
  - English speaker
In-Depth Interview Procedures

- Demographics and tobacco use history assessments and in-depth interviews completed over the phone
- Interviews conducted by trained research coordinator
- Questions assessed
  - Experience with cervical cancer
  - Thoughts about association between cervical cancer and smoking
  - Pros and cons of smoking
  - Pros and cons of quitting
  - Prior attempts at quitting smoking
    - Helpful and unhelpful strategies during prior quit attempts
    - Antecedents of relapse during prior quit attempts
  - Strategies to include and strategies to avoid including in smoking cessation treatment for cervical cancer survivors
  - Components to include in the wellness program
## In-Depth Interview Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample (N=10)</th>
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<tbody>
<tr>
<td>Mean Age (SD)</td>
<td>46.8 (7.04)</td>
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<tr>
<td>Race/Ethnicity % (n)</td>
<td></td>
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<tr>
<td>non-Latino White</td>
<td>80% (8)</td>
</tr>
<tr>
<td>Native American/Alaska Native</td>
<td>20% (2)</td>
</tr>
<tr>
<td>Education % (n)</td>
<td></td>
</tr>
<tr>
<td>&gt; High school diploma or GED</td>
<td>50% (5)</td>
</tr>
<tr>
<td>Total Annual Household Income &lt;$30,000 % (n)</td>
<td>80% (8)</td>
</tr>
<tr>
<td>Unable to Work or Disabled % (n)</td>
<td>60% (4)</td>
</tr>
<tr>
<td>Not Partnered % (n)</td>
<td>90% (9)</td>
</tr>
<tr>
<td>Mean Cigarettes per Day (SD)</td>
<td>17.4 (7.6)</td>
</tr>
<tr>
<td>Abstinence Goals</td>
<td></td>
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<tr>
<td>Total abstinence, never to smoke again</td>
<td>70% (7)</td>
</tr>
<tr>
<td>Total abstinence, but could slip and maintain abstinence</td>
<td>30% (3)</td>
</tr>
<tr>
<td>Mean Number of Years Smoked (SD)</td>
<td>27.2 (8.5)</td>
</tr>
<tr>
<td>Prior &gt;24hr Quit Attempt</td>
<td>100% (10)</td>
</tr>
<tr>
<td>Cancer Stage at Diagnosis % (n)</td>
<td></td>
</tr>
<tr>
<td>≥ Stage 2</td>
<td>60% (6)</td>
</tr>
<tr>
<td>Cancer Status % (n)</td>
<td></td>
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<tr>
<td>In Remission</td>
<td>90% (9)</td>
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In-Depth Interview
Data Preparation and Analyses

- In-depth interviews audio-recorded, transcribed, and entered into Nvivo 10 qualitative software for management and analyses

- Transcripts reviewed and coded using inductive and deductive approaches
  - Initial list of codes developed from interview topics
  - Additional codes came from concepts that emerged from the data

- Examined relationships and patterns of the concepts within and across transcripts to identify themes to inform MAPS adaptation
In-Depth Interview Results

• Experience with cervical cancer
  • Most reported that they had not been getting routinely screening and were diagnosed with cervical cancer in the ED

• Impact of cervical cancer on participants’ lives
  • All said it changed their outlook on life
  • Worried about other potential health problems
  • No longer take health for granted
  • Negative impact on mental health
  • Long-lasting physical side effects
  • Shame and embarrassment
  • Diagnosis was a wake-up call
    • “After you’ve had cancer and lived through it, definitely you can’t come back from that. It changed me mentally, emotionally. It changed me a lot”
In-Depth Interview Results

- Association between cervical cancer and smoking
  - Nine of 10 participants stated that they did not believe there was an association between cervical cancer and smoking, and attributed their diagnosis solely to HPV
    - “I don’t know if there’s any data that shows that, but I know—I mean, I knew that cervical cancer was usually related to HPV, so I didn’t really relate it to my smoking at all.”
    - “I never really put the two together because I was thinking—I didn’t know if it maybe had been lung cancer or something like that I could kind of see it—that it could be related because of inhaling it. But I never really thought that it could cause the cancer in my cervix.”
In-Depth Interview Results

• Pros of smoking
  • Habit or routine
  • Way to cope with negative affect (e.g., stress, anxiety, “nerves”)
  • Relaxing or calming
  • Way to avoid withdrawal symptoms
  • Distraction – allows participants to take a break
  • Curb appetite

• Cons of smoking
  • Addiction
  • High cost
  • Concerns about current health (e.g., SOB, cough, sinuses)
  • Concerns about future health (e.g., other types of cancer)
  • Effects on skin and teeth
  • Bad taste in mouth
  • Not “politically correct”
In-Depth Interview Results

- Pros of quitting
  - Saving money
  - Improving health and breathing
  - Avoid lung cancer
  - Free from addiction
  - Smell better
  - Improve taste

- Cons of quitting
  - Withdrawal
  - Coping mechanism
  - Habit/routine – something would be missing
  - High cost of NRT and medications
  - Smoking fills time
  - Failed in past
  - Weight concerns
In-Depth Interview Results

- Antecedents of relapse during prior quit attempts
  - Not knowing how to manage intense withdrawal symptoms
  - Negative affect (e.g. stress, anxiety, “nerves”)
  - Stressors (e.g., divorce, domestic abuse, work-related problems, legal problems, injury)
  - Pain related to cancer
  - Boredom
  - Being around other smokers
  - Undergoing chemotherapy or radiation
In-Depth Interview Results

- Risk factors for relapse during prior quit attempts
  - Ongoing stress and anxiety
  - Lack of social support (e.g., family nagging)
  - Unpleasant withdrawal symptoms
  - Being around other smokers
  - Side effects of NRT and medications
  - Concern that NRT might be too strong or not strong enough
  - Using e-cigarettes
  - Side effects of chemotherapy and/or radiation
    - Quitting smoking while undergoing treatment
  - Trouble scheduling with Quitline
In-Depth Interview Results

- Helpful strategies during prior quit attempts
  - Social support from friends and family
  - Use of NRT or medications
  - Distraction techniques (e.g., embroidery, crocheting)
  - Substitution techniques (e.g., holding a pencil or straw, eating hard candy, chewing gum)
  - Avoiding other smokers
  - Deep breathing
  - Physical activity
  - Prior hospitalization, as they could not smoke in the hospital
  - Most agreed that different things work for different people
In-Depth Interview Results

- Strategies/components *not* to include in smoking cessation treatment for cervical cancer survivors
  - Avoid negativity and judgment
  - Don’t just tell us to “breathe deeply” to manage stress
  - Faith-based treatments might isolate those who are not religious
  - Don’t need to tell us, “smoking is bad” – we already know
In-Depth Interview Results

- Strategies/components to include in smoking cessation treatment for cervical cancer survivors
  - Psychoeducation
    - Impact of smoking on health
    - Association of smoking with various cancers, including cervical cancer
    - NRT, medications, and e-cigarettes
    - Benefits of quitting
  - Coping with withdrawal symptoms and cravings
  - Substitution and distraction strategies
  - Real-time support or a hotline
  - Assistance with developing a plan for quitting
  - Social support – eliciting positive and managing negative support
  - Follow-up, or relapse prevention
  - Tailored approach
In-Depth Interview Results

- Components to include in wellness program
  - General stress management
  - Managing chaos in personal lives
  - Physical activity and healthy eating
  - Coping with what it means to be a cervical cancer survivor
  - Managing side effects of cancer and treatment
Implications for MAPS Adaptation

- MAPS emphasizes the “whole person”
  - Problems are not discrete, but intertwined with one another and with smoking – emphasis on prioritizing and addressing these problems

- MAPS already includes treatment modules address:
  - Psychoeducation – smoking and health, NRT, benefits of quitting
  - Coping skills for quitting smoking
  - Developing a plan for quitting
  - Relapse prevention
  - Stress management
  - Social support
  - Physical activity and healthy eating
Implications for MAPS Adaptation

- Additional modules and content will address:
  - Psychoeducation on how continued smoking increases risk of cervical cancer recurrence, second primary cancers, other health problems
  - Managing the side effects of chemotherapy and radiation
  - Planning quit attempt around cancer treatment
  - Coping with what it means to be a cervical cancer survivor
    - Identify local support groups and refer participants

- Treatment delivered individually and via phone allowing for tailored content

- Participants able to schedule MAPS counseling calls to fit their schedule
Collaborators

University of Oklahoma Health Sciences Center and Stephenson Cancer Center
Damon Vidrine, DrPH
Joan Walker, MD
Stephen Gillaspy, PhD
Catherine J Knight, MPH, CHES
Jessica Son, BS
Jamie Miller, LCSW, MSW
Summer G. Frank, PhD
Dwayne Geller, BS

MD Anderson Cancer Center
Diana Stewart Hoover, PhD
Ya-Chen Tina Shih, PhD
Lois Ramondetta, MD
Yisheng Li, PhD

Rice University
David W Wetter, PhD
Patricia Y Figueroa, MS
Tobacco Cessation in Cancer Prevention and Treatment:
A Call to Action for California Cancer Centers

Shauntay Davis, MPH
California Comprehensive Cancer Control Program
California Dialogue on Cancer

Elisa Tong, MD, MA
University of California, Davis
Objectives

- Understand Comprehensive Cancer Control
- Provide background of development of Call to Action document
- Familiarize participants with topics included in Call to Action document
- Describe dissemination planning and next steps
Comprehensive Cancer Control

Comprehensive Cancer Control is a collaborative process through which a community pools resources to reduce the burden of cancer that results in:

- Risk reduction
- Early detection
- Better treatment
- Enhanced survivorship
California’s Comprehensive Cancer Control Program

California’s Comprehensive Cancer Control Program (CCCP) is charged with:

- Establishing a cancer control coalition
- Assessing the burden of cancer
- Developing and implementing a Comprehensive Cancer Control Plan for California
California Tobacco Users

CA prevalence: 13.8% (CHIS 2011-2)

- 3.8 M smokers

Counties have higher rates

- Sacramento: 17.9%
- Yuba County: 28.4%
- Kern County: 19.4%

Higher in subgroups

- Racial/ethnic groups
- Low SES
- Behavioral health
• Partnership on outreach to comprehensive cancer centers
  - Ongoing statewide project connecting Medi-Cal smokers to CA state quitline

• Led to discussion about how to help CA cancer centers prioritize tobacco treatment for cancer survivors
Development of Call to Action

- Messages about tobacco in cancer prevention and treatment not necessarily new, but little action or measurement of change

- Wanted cancer centers and providers to prioritize tobacco treatment

- How to better integrate health care and public health?
  - Guidance document evolved into call to action
Target Audience:

California Cancer Centers

• Commission on Cancer (CoC), a program of the American College of Surgeons (ACoS)
  - 95 CoC accredited cancer centers/programs in CA
  - Includes 10 NCI –Designated Cancer Centers in CA

[Image of UC Davis Comprehensive Cancer Center]
Stakeholder Collaboration

- Tobacco Stakeholder Advisory Group formed under state cancer control coalition (CDOC)

- Over 20 partnering organizations
  - Cancer centers and providers
  - California Tobacco Control Program
  - Tobacco-Related Disease Research Program
  - Tobacco Education Research Oversight Committee
  - California Smokers' Helpline
  - CA Department of Health Care Services
  - American Cancer Society
  - American Lung Association
  - American Heart Association
  - Academic institutions and non-profits
Call to Action Topics: Public Health Updates

- 2014 Surgeon General's report: *The Health Consequences of Smoking - 50 Years of Progress*
  - Tobacco causes 14 cancers
  - Worsens cancer treatment outcomes

- Nation-wide gap in cessation services in oncology settings

- Consensus to act on tobacco and cancer
Call to Action Topics:
California Cancer Registry Data

- Started collecting tobacco status in 2011 for newly diagnosed cancer cases

- Only 28.9% cases have tobacco status abstracted
  - 144,805 cases 2011-2013

- Current tobacco use among cases with tobacco status abstracted
  - 16.2% any type of cancer
  - 22.1% tobacco-related cancers

Source: California Cancer Registry, CA Department of Public Health
Call to Action Topics: Clinical Opportunities

• Clinical, Systems, and Research Issues
  o Lung cancer screening
  o Insurance Coverage with the Affordable Care Act
  o Meaningful Use
  o ASCO QOPI quality accreditation
  o NCI-AACR cancer patient tobacco use questionnaire for clinical research

• Resources including system change examples for tobacco cessation

[Image of healthcare professionals]
Next Steps:

Bridge Public Health with Health Care

- Enhance completeness of tobacco data for California Cancer Registry
- Connecting providers to the quitline
- Engaging providers around quality improvement
Dissemination Plan

• Distribution to CA cancer centers

• Comprehensive Cancer Control Program
  ○ CDOC, CDOC Tobacco Stakeholder Advisory Group Partners

• California Tobacco Control Program

• California Department of Health Care Services
Thank You

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Questions for Our Speakers?
Tell Us About Your Experience!
Use the Q&A Feature on the right of your screen.

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• A link to a feedback survey will be sent to all registrants shortly.
• Continue the discussion on our Research to Reality Community of Practice: researchtoreality.cancer.gov

Registration opens later this week for our September session on HAVOC—a tobacco free behavioral intervention.