Disseminating a Tobacco Curriculum for Pharmacy Schools

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Yale University School of Medicine
Research Approach

Training programs -
- Pharmacists
- Pharmacy students

Behavioral Theory

PHARMACISTS’ OPINIONS

TOBACCO USERS’ OPINIONS

CESSATION INTERVENTIONS
Licensed Pharmacists’ Training for Cessation

- Fewer than **9%** of pharmacists have received formal training for tobacco cessation counseling.
- **87.5%** are interested in receiving training.
- **93.4%** believe it will improve the quality of their counseling.
- **70.4%** believe it will increase the number of patients whom they counsel.

*n = 711* pharmacists who interact with patients as part of their pharmacy-related position.
Pharmacists with formal training are more likely to counsel 4 or more patients per month for quitting than are pharmacists with no formal training. 

\[ p < 0.005 \]

\[ n = 711 \] pharmacists who interact with patients as part of their pharmacy-related position
Research Approach

SURVEY OF 1,168 PHARMACISTS

INTERVIEWS WITH 103 PATIENTS*

Behavioral Theory

Training programs -
- Pharmacists
- Pharmacy students

CESSATION INTERVENTIONS

* Users of nonprescription NRT.
Training Future Clinicians
Rx for Change: Vision and Curriculum Goals

- State-of-the-art training program
  - Easily integrated into existing course structures
  - Supported by evidence-based research
  - TURN-KEY PROGRAM

- Tobacco cessation curriculum for PharmD students
  - Graduates qualified to intervene with all tobacco users (implemented in yr 01 or yr 02)
  - Standard of care for pharmacy-based cessation activities in California
Rx for Change: Overview

- 6- to 12-hour modular program
- Major components:
  - Didactic lecture material
  - Interactive workshop
Rx for Change: Core Modules

- Epidemiology of Tobacco Use
- Pharmacology of Nicotine & Principles of Addiction
- Drug Interactions with Smoking
- Assisting Patients with Quitting
- Aids for Quitting
- Role Playing: Case Scenarios
Rx for Change:
Optional Lecture Modules

- Forms of Tobacco
- Pathophysiology of Tobacco-Related Disease
- Genes and Tobacco Use
- A History of Tobacco Control Efforts
- How to Get Involved
- Post-cessation Weight Maintenance
- Tobacco Use: Adolescents and Young Adults*

* Under development.
Instructor Tools

- Train-the-trainer program
- Rx for Change curriculum
  - Faculty Coordinator’s Guide and supporting materials
  - CD ROM (> 300 slides)
  - Instructor’s notes for each slide
  - Ancillary handouts
  - Case scenarios (2 demo, 20 pharmacy, 10 clinician)
    - Instructor guidelines, clinician info, patient info
CASE 9
INSTRUCTOR GUIDELINES

STAGE: Ready to Quit

Ms. Warner has a history of essential hypertension. She is a 52-year-old woman who recently moved from out of state for a job promotion. She has been taking hydrochlorothiazide (a diuretic) for the past year. You review the medical record from her prior physician and note that her blood pressure has remained elevated (137/94) for over a year. She is mildly overweight (about 10 pounds) for her height and has no other medical problems.

KEY POINTS

THIS PATIENT

- has high blood pressure that has been uncontrolled for over a year
- is ready to quit
- previously failed trying to quit when using the nicotine gum
Instructor Tools, cont’d

- Rx for Change videotape
  - Introductory segment (F Vitale, U Pittsburgh)
  - 6 trigger tapes + instructor guidelines
  - 3 videotaped counseling sessions

- Clinical Practice Guideline

- Outreach tools:
  - Tobacco prevention lecture for middle schools
  - CE programs: 7 versions, w/ goals and objectives, handouts

- RxforChange web-site access
Rx for Change: External Review

Neal Benowitz, MD
Bruce Berger, PhD, RPh
Li Cheng, PhD
Timothy Cline, PhD
Carlo DiClemente, PhD
Stanton Glantz, PhD
Taline Khroyan, PhD
Marianne Paynter, PharmD
Alexander Prokhorov, MD, PhD
Frank Vitale, MA
Program Evaluation (Yr 03)

Students' self-ratings of overall ability⁹ to help patients quit using tobacco

- Pre-training ability, assessed pre-training⁹
- Pre-training ability, assessed post-training⁹
- Post-training ability⁹

n = 493

a “How do you rate your overall ability to help patients quit using tobacco?”

b “Before the training, how would you have rated your overall ability to help patients quit using tobacco?”
Evaluation Results (cont’d)

Changes in confidence for cessation counseling:
12-item scale, Cronbach alpha = 0.92

$n = 493$
Evaluation Results (cont’d)

Changes in tobacco cessation counseling competency (5 A’s):
5-item scale,
Cronbach alpha = 0.85

$n = 493$
believe that the training will increase the number of patients they counsel for cessation.

97% believe that formal training will improve the quality of their cessation counseling.
Pharmacy’s Role in Tobacco Control: Student Pharmacists’ Views

Do you think that the pharmacy profession should be more or less active in helping people to quit using tobacco?

- More active: 96%
- No change: 4%
Do you believe that students at other U.S. schools of pharmacy would benefit from receiving the same, or similar, training?

- **YES**: 99.2%
- **NO**: 0.8%

**What IS being taught in U.S. pharmacy schools?**
National survey, 98.8% response \((n=82)\)

Median, 170 total min of required tobacco content during pharmacy training

Most heavily emphasized topics:
- Aids for Quitting
- Pharmacology of Nicotine & Principles of Addiction
- Assisting Patients with Quitting
Perceived Importance for Required Coursework

- **Aids for cessation**: 95.1% reporting allocated time, 56.3% perceive this topic to be adequately covered.
- **Assisting patients with quitting**: 90.2% reporting allocated time, 44.4% perceive this topic to be adequately covered.
- **Drug interactions with smoking**: 90.0% reporting allocated time, 38.0% perceive this topic to be adequately covered.
- **Nicotine pharmacology & principles of addiction**: 91.2% reporting allocated time, 52.6% perceive this topic to be adequately covered.
- **How to get involved**: 68.3% reporting allocated time, 25.0% perceive this topic to be adequately covered.
- **Pathophysiology of tobacco-related disease**: 82.7% reporting allocated time, 36.7% perceive this topic to be adequately covered.
- **Adolescent tobacco use**: 34.6% reporting allocated time, 6.3% perceive this topic to be adequately covered.
- **Post-cessation weight maintenance**: 58.0% reporting allocated time, 11.4% perceive this topic to be adequately covered.
- **Epidemiology of tobacco use**: 85.4% reporting allocated time, 32.9% perceive this topic to be adequately covered.
- **Forms of tobacco**: 57.3% reporting allocated time, 22.5% perceive this topic to be adequately covered.
- **Genes and tobacco use**: 15.0% reporting allocated time, 1.3% perceive this topic to be adequately covered.
- **History of tobacco control efforts**: 34.1% reporting allocated time, 8.9% perceive this topic to be adequately covered.
Rx for Change: Dissemination within California

Number of students trained

<table>
<thead>
<tr>
<th>Year</th>
<th>Pharmacy</th>
<th>Medicine</th>
<th>Dentistry</th>
<th>Nursing</th>
<th>Total</th>
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<tr>
<td>2004</td>
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</table>

Year
CALIF: 6 schools  
650 students annually

USA: 89 schools  
9,000 students annually

“Disseminating a Tobacco Curriculum for Pharmacy Schools”  
National Cancer Institute: 1 R25 CA 90720
## Disseminating a Tobacco Curriculum for Pharmacy Schools

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<td><strong>Curriculum content surveys</strong></td>
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<td>O₂</td>
<td>O₃</td>
<td>O₄</td>
<td>O₅</td>
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<tr>
<td><strong>Student surveys</strong></td>
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<td></td>
<td>O₁</td>
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<tr>
<td><strong>External dissemination</strong></td>
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<td>Monthly</td>
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<td><strong>Web-site utilization</strong></td>
<td></td>
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<td></td>
<td>Ongoing</td>
<td></td>
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</tbody>
</table>

- Monthly throughout life of grant
- Ongoing throughout life of grant
Train-the-Trainer Programs
Summer 2003

How do you rate your overall ability to teach comprehensive tobacco cessation to your students?

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the program</td>
<td>2.77 (1.07)</td>
</tr>
<tr>
<td>After the program</td>
<td>4.39 (0.56)</td>
</tr>
</tbody>
</table>

$p < 0.001$

$n = 132$
Prior to attending this conference, had you received formal training for ______ tobacco use & dependence?

- Treating
  - Yes, extensive
  - Yes, some
  - No

- Teaching
  - Yes, extensive
  - Yes, some
  - No

$n = 132$
Train-the-Trainer Programs: Participant Perceptions

Compatibility for integration
Comprehensiveness of content
Appropriateness of teaching methods
Confidence in skills for teaching RxFC
Likelihood of adoption in 2003-2004

Percent of total responses

- High
- Moderate
- Low
- None

- 69.5%
Year 01
Implementation Statistics

- 55/75 (73.3%) of schools trained have implemented (n ~ 6,100 students)
- 7 in Fall 2004; 5 in Spring 2004
  - 67/75 = 90%
- New schools attending Yr 02 train-the-trainer program: 9
- 4 remain
55/75 (73.3%) of schools trained implemented in 2003-2004
Rx for Change: Programs Disseminated

Number of programs distributed

Month and Year

Apr-03 | Jul-03 | Oct-03 | Jan-04 | Apr-04 | Jul-04

320
Welcome to Rx for Change!

Rx for Change: Clinician-Assisted Tobacco Cessation is a comprehensive, turn-key, tobacco cessation training program that equips health professional students and licensed clinicians with state-of-the-art knowledge and skills for assisting patients with quitting. The program is based on principles set forth in the U.S. Public Health Service Clinical Practice Guideline for Treating Tobacco Use and Dependence.

The Rx for Change materials can be used in the classroom, for students in the health professions, or as a continuing education program for licensed clinicians. Learn more about the Rx for Change program.

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Please direct all comments or questions to info@itg.ucsf.edu
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Dissemination Hurdles

- Lack of funding, funding delays
- Overly optimistic launch date
  - Materials finalization and editing
- Legal issues related to dissemination
  - Permissions
  - Inter-institutional agreement
  - End-user licensing agreement
  - Tracking and issuing of licenses
UCSF School of Medicine (4 yrs, 4 hours)
UCSF School of Dentistry (2 yrs, 4 hours)
UCSF School of Nursing (1 yr, 4 hours)
Georgetown University School of Nursing (ALF)
  • ~85 schools trained
CE for practicing clinicians (NIH R01)
Physician Assistant programs