Interprofessional Evidence Based Solution for Alcohol Screening Using Technology

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Conflict of Interest

The authors report no conflicts of interest.
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Fact #1. Substance Use Disorder in the Past Year

Fact #2. Substance Use Disorder and Mental Issue

# Fact #3. Cost of Substance Abuse

<table>
<thead>
<tr>
<th></th>
<th>Health care</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>$130 billion</td>
<td>$295 billion</td>
</tr>
<tr>
<td>Alcohol</td>
<td>$25 billion</td>
<td>$224 billion</td>
</tr>
<tr>
<td>Illicit drugs</td>
<td>$11 billion</td>
<td>$193 billion</td>
</tr>
</tbody>
</table>

http://www.drugabuse.gov/related-topics/trends-statistics
Fact #4. Medical Consequence of Substance Use

- HIV/AIDS, Hepatitis, and other infectious disease
- Cardiovascular disease
- Stroke
- Cancer
- Hepatitis
- Lung disease

Fact #5. Challenges in Rural Areas

- Vulnerable population
  - Older and poorer
  - Chronic disease (e.g., obesity, diabetes, hypertension)
- Substance use and comorbid medical conditions
- Limited access to treatment and resources
Interprofessional Collaborative Practice

Based on the Institute of Medicine (IOM) recommendations:

- The goal of this interprofessional learning is to prepare all health professions to - deliberatively work together with the common goal of building a safer and better patient-centered and community/population oriented U.S. health care system.

Essential VI: Interprofessional Communication and Collaboration for Improving Patient Health Outcomes

Essential VIII: Professionalism and Professional Values
Purpose of This Presentation

- To present results of an interprofessional evidence-based practice solution for alcohol screening in rural areas using technology
Overview of Project

- A pre-post test design with a convenience sample obtained primarily from rural mental health facilities located in Pennsylvania, Western Virginia, and Ohio.
- Implemented between 2012 and 2015
Overview of Project

1.5 Hours  
Site Visit  
To help us learn about the specific patients served at your site and respond to the needs of your healthcare staff and patient population.

1.5 Hours  
Modules  
Using a self-paced online module, participants learn about substance use screening and interprofessional roles.

1.5 Hours  
Case Simulations Practice  
We’ll lead you through scenarios to try out your new skills.

1.5 Hours  
Interprofessional Dialogues with Site Cases  
Apply the model you’ve learned to blinded cases from your site.

0.5 Hours  
Blog  
Join our online community for interprofessional collaborative practice updates, videos, and emergent topics from other sites.

0.5 Hours  
Technical Assistance  
We’ll assist you with issues, cases or situations needed to foster improved patient outcomes.

1 Hour  
Evaluation  
We’ll ask for your feedback on questionnaires and during a focus group.

8 total hours over 3 months
The Objectives of the IPCP are:

• To integrate a sustainable and replicable interprofessional collaborative practice for delivering efficient and effective substance use health care in rural areas.

• To add 135 health practitioners to the workforce skilled in IPCP who are able to identify and provide service earlier along the continuum of substance use, abuse, and dependence assessed with patients in rural areas.
Background

- Pennsylvania is “one of the most rural states in the nation”.
- 28% of the state’s population lives in areas that are categorized as rural
- 48 out of the state’s 67 counties are categorized as “rural”

Source: Pennsylvania Office of Rural Health 2004-05 Annual Report
Screening, Brief Intervention, and Referral to Treatment (SBIRT)

- Public health model provides universal screening
- Detecting risky or hazardous substance use before the onset of abuse or dependence
- Short, valid and reliable evidence-based used within the time constraints of a health visit
- Brief set of questions to assess patient’s alcohol and other drug use risk level
SBIRT is recommended by:

- The US Preventive Services Task Force
  -- as part of universal screening in all health visits
- Department of Veterans Affairs/Department of Defense
- The Joint Commission
- American College of Obstetricians and Gynecologists
- The American College of Surgeons Committee on Trauma Accreditation Standards
  -- or Level I and Level II trauma centers
Interprofessional Collaborative Practice Model

Online Module Presentations

1. Intro to Project Partners
2. Continuum of Use
3. SBIRT
4. Motivational Interviewing Strategies
5. Practicing IPCP
6. Case Studies
Technology

IPCP Uses Multiple Technologies

- Articulate
- Moodle
- REDCap
- ireta
- IRETA Website
- Webex
Mr. Lin

- Mr. Lin a 55 year old male Chinese business man who was recently discharged from the hospital.
- Mr. Lin had been crossing the street after a business meeting and was struck by a car. Witnesses stated that Mr. Lin appeared impaired and walked into street without looking for oncoming traffic.
- During his hospitalization, Mr. Lin was found to have sustained 3 broken ribs and had untreated diabetes mellitus.
InterProfessional Collaborative Practice

Delivering effective, team-based substance use healthcare

The University of Pittsburgh School of Nursing, Graduate School of Public Health, and the Institute for Research, Education and Training In Addictions (IRETA) invite you to join a national project, funded by the Health Resources and Services Administration, to better address risky substance use through a collaborative intervention. No one can solve the problem alone—it takes a village.

You already serve individuals who use, misuse, or are dependent on alcohol, tobacco, and other drugs. Through this project, you will expand your provision of care through an evidence-based approach to screening, intervening, and housing individuals with substance use disorders—even before patients undertake risky behavior.

This SBIRT (Screening, Brief Intervention and Referral to Treatment) project involves an interprofessional team of nurses, public health workers, and behavioral health counselors. The project aims to help you create a sustainable and replicable “Interprofessional Collaborative Practice” (ICP) that can be implemented at the front lines of health care—particularly in those regions which lack access to appropriate services. The project seeks healthcare professionals from nursing, public health and behavioral health care to participate in this 100% online, self-paced study providing 5.5 – 8 continuing education units depending on your profession. Through a series of online questionnaires and modules, our interprofessional team will help you identify appropriate screening tools and increase the effectiveness of your team in addressing risky substance use behavior.

**I am a health care organization... what do we do?**

Contact Project Director, Kathy Postle, D.P.H., RN, FAAN at kpostle@pitt.edu or 412-383-8063.

We will ask you to designate a “site champion” who will work with our project coordinator and interface with your staff who agree to participate.

Site Champions should expect to spend about 2 hours over the next 4 months on this project.

**How do we benefit?**

- Staff earn free Continuing Education Units at no cost to your organization.
- Free laptop for Site Champion.
- Technical assistance for your administrators.
- Access to the speaker’s bureau of the project.
- Improved health care practice and patient outcomes.

**I am a health care professional... what will I do?**

- Complete 3 online questionnaires.
- Complete an online module connecting the topic of substance use and social health care.
- Complete an online case simulation practice session.
- Participate in a live, online discussion about anonymous patient cases.

We estimate that participants will spend approximately 5 hours over the next 3 months on this project.

**How do I benefit?**

- 5.5 to 8 free Continuing Education Units (depending on profession).
- Three $10 Amazon gift cards.
- Learning opportunity that sustains your schedule.
- Improved health care practice.

Health care practice calls for interprofessional collaboration to address health promotion and primary prevention needs related to behavioral changes, as well as to create effective care environments for patients. The U.S. Health Services and Resources Administration (HRSA) created a program to involve professionals from various health fields to address Institute of Medicine (IOM) health priorities including alcohol, tobacco and other drug use. This project is part of a national program to not only benefit patient care, but also to help train a workforce prepared to work within a multi-professionals team.
IPCP Dialogue

Interprofessional Collaborative Practice Model

Figure 6: Interprofessional Collaborative Practice Domain
This online course is approved for 5.5 ANCC Nursing CEUs, 8 SW CEUs, 8 PA CADC CEUs.

Click here for course instructions.

On this website, you will participate in the online modules, practice-based case simulations, and interprofessional (IP) dialogues with cases from your own organization.

Site visits, blog, technical assistance and evaluation are ongoing activities.

**GIFT CARDS:** Receive a $10 Amazon.com gift card as a thank you for completing the pre-course survey, a second $10 Amazon.com gift card for completing the online modules, the case studies, and their surveys. You'll receive a third $10 Amazon.com gift card after completing the dialogue and survey.

CONTINUING EDUCATION CERTIFICATION: Upon completion of the full course, you will receive your continuing education certificate by email for Nursing or CADC credits, and via postal mail for Social Work credits.

As a result of your interaction with these practice-based learning activities, you and your colleagues will help to improve patient outcomes.

Click here for project overview.

Our ability to award contact hours for these activities expires April 22, 2015.

**QUESTIONS?** Visit our FAQ or E-mail ipcp@ireta.org - we will respond within 24 hours.
Interprofessional Collaborative Practice
Targeting Substance Use In Rural Populations Dialogue Webinar Sessions

School of Nursing
Graduate School of Public Health
Institute for Research, Education and Training in Addictions (IRETA)

For Audio Dial 1-877-492-0905
For Visual Dial 1-949-699-5400

Enter chat message or link here
Drug and Drug Problems Perceptions Questionnaire (DDPPQ)

- **Motivation**: Example: “I feel that there is little I can do to help drug users.”

- **Work Satisfaction**: Example: “I want to work with drug users.”

- **Task-Specific Self-Esteem**: Example: “In general, I have less respect for drug users than for most other patients/clients I work with.”

- Other subscales:
  - **Role Adequacy**
  - **Role Legitimacy**
  - **Role Support**

Alcohol and Alcohol Problems Perceptions Questionnaire (AAPPQ)

- **Role Adequacy**: Example: “I feel I have a working knowledge of alcohol and alcohol related problems.”

- **Role Legitimacy**: Example: “I feel I have a clear idea of my responsibilities in helping drinkers.”

- **Role Support**: Example: “If I felt the need when working with drinkers I could easily find someone who would help me clarify my professional responsibilities.”

- Other subscales:
  - Work Satisfaction
  - Task-Specific Self-Esteem
  - Motivation

IPCP Questionnaire: Interdisciplinary Education Perception Scale (IEPS)

- **Professional Competence and Autonomy:** Example “Individuals in my profession are extremely competent.”

- **Perceived Need for Professional Cooperation:** Example “Individuals in my profession must depend upon the work of people in other professions.”

- **Perception of Actual Cooperation:** Example “Individuals in my profession think highly of other related professions.”

- **Understanding Value of other Professions:** Example “Individuals in my profession make every effort to understand the capabilities and contributions of other professions.”

Analysis

- A total of 240 participants enrolled in the study (completed the pre-training survey). Of these, 106 successfully completed the educational intervention program and post-training surveys.

- Statistical analyses were performed using SPSS 21 (Armonk, NY: IBM Corp.).

- Descriptive statistics and Linear mixed modeling was used to analyze data.
# Demographic Information (n=106)

<table>
<thead>
<tr>
<th>Demographic Information</th>
<th>Mean (±SD) or n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td>39.9 (±13.6)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>90 (85%)</td>
</tr>
<tr>
<td>Men</td>
<td>16 (15%)</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>99 (93.4%)</td>
</tr>
<tr>
<td>Black</td>
<td>5 (4.7%)</td>
</tr>
<tr>
<td>Others (e.g., Native Hawaiian/other Pacific Islander)</td>
<td>2 (1.9%)</td>
</tr>
<tr>
<td><strong>Health care professionals</strong></td>
<td></td>
</tr>
<tr>
<td>Nurses</td>
<td>37 (34.9%)</td>
</tr>
<tr>
<td>Counselors</td>
<td>16 (15.1%)</td>
</tr>
<tr>
<td>Social workers</td>
<td>6 (5.7%)</td>
</tr>
<tr>
<td>Substance abuse professionals</td>
<td>11 (10.4%)</td>
</tr>
</tbody>
</table>
Drug Problem Perception

Drug Problem Perception (n=106)

- Role Adequacy
- Role Legitimacy
- Role Support
- Motivation
- Task-Specific Self-Esteem
- Work Satisfaction

Pre-training Mean
Post-training Mean

* p<.05
Alcohol Problem Perception

![Graph showing the comparison of pre-training and post-training means for different dimensions of alcohol problem perception.](image)

- **Role Adequacy**: Pre-training Mean = 3.7, Post-training Mean = 3.9
- **Role Legitimacy**: Pre-training Mean = 3.9, Post-training Mean = 4.1
- **Role Support**: Pre-training Mean = 3.6, Post-training Mean = 3.8
- **Motivation**: Pre-training Mean = 3.8, Post-training Mean = 4.0
- **Task-Specific Self-Esteem**: Pre-training Mean = 3.5, Post-training Mean = 3.7
- **Work Satisfaction**: Pre-training Mean = 3.4, Post-training Mean = 3.6

* p < .05
Interdisciplinary Education Perception

![Bar chart showing the perception of professional competence, perceived need for cooperation, perception of actual cooperation, and understanding value in pre-training, post-training, and post-IP dialogue stages.](chart.png)

- Professional Competence and Autonomy
- Perceived Need for Cooperation
- Perception of Actual Cooperation
- Understanding Value

Legend:
- Pre-Training
- Post-Training
- Post-IP Dialogue

Note: * indicates significant difference.
Gift Cards

- Gift cards ($10) were distributed for:
  - Completion of the online course (221 cards)
  - Completion of the case studies (160 cards)
  - Completion of the dialogue (136 cards)
Challenge Related Technology

- Some participants found it challenging to use the online platform.

- Some participants were not familiar with web-based platforms and had difficulty navigating the system.

- Some cases had to use their home computers because work computers were not available.
Conclusion

- Online program improved the participants’ competence to work with people with substance use disorder.

- Health professionals can collaboratively prevent or lower the risks of alcohol and substance use, which impact on the quality and safety of care for patients.
Conclusion

• The benefit of using technology to overcome limited access to training and educational resources and accessibility in rural settings needs to be considered.

• Nurse managers’ active involvement to facilitate IPCP for nurses and their employers can sustain IPCP in rural clinical settings.
Sigma Theta Tau International Honor Society of Nursing®

Evidence-Based Practice Award

• Advances evidence-based practice through work in integrating knowledge and evidence in practice.
• Influences health of individuals and communities by bringing together professionals from various disciplines and roles.
• Engages researchers, clinicians, patients and families.

Award for SBIRT to Puskar & Mitchell 2013
Screening Manual for Nurses

- Trainer’s Manual
- Ring of Knowledge Cards
- Handouts
  - Small Group Scenarios
  - Role Play Scenario
- Power Points
  - Initial Training
  - Review/Refresher Training
Screening Manual for Nurses

- Developed by the University of Pittsburgh School of Nursing
- Train Nurses
- Free Download: http://www.nursing.pitt.edu/academics/ce/SBIRT_teaching_resources.jsp
Online Module

To Enroll:
nursing.pitt.edu/academics/ce/SBIRT.jsp

• SBIRT Overview and History
• Screening Assessments
• Video Case Studies
SBIRT Teaching Resources

SBIRT* Teaching Resources

*Screening, Brief Intervention and Referral to Treatment (SBIRT)

More than half (52%) of Americans aged 12 or older report being current drinkers of alcohol, 27% report current use of a tobacco product, and 9% report illicit drug use (Substance Abuse and Mental Health Services Administration [SAMHSA], 2019). Nurses treating patients in a variety of healthcare settings will encounter individuals who use alcohol, tobacco, and other drugs.

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a universal screening and prevention approach. An evidence-based practice, SBIRT targets individuals who use alcohol, tobacco, and other drugs but are not yet dependent on those substances. Any level of drinking or drug use may complicate an individual’s health condition, work, and family life (Centers for Medicare and Medicaid Services CMS, 2013). SBIRT is an approach nurses can use to provide effective risk reduction and intervention prior to a patient’s need for more extensive treatment.

The Substance Use Education for Nurses: SBIRT curriculum has been used to successfully train over 600 undergraduate student nurses at the University of Pittsburgh. We provide the following resources to you free of charge with the hope you will utilize them in training and education of student and professional nurses, along with other healthcare professionals.

1. Trainer’s Manual
2. Ring of Knowledge (ROK) Cards
3. Substance Use Education for Nurses PowerPoint
4. Substance Use Education for Nurses Handout
5. Review/Refresher PowerPoint
6. Review/Refresher Handout

http://www.nursing.pitt.edu/continuing-education/sbirt-teaching-resources
American Association of Colleges of Nursing

- SBIRT Teaching Resources available at: www.aacn.nche.edu/faculty/curriculum-guidelines

Click here:

- Interprofessional Oral Health Faculty Tool Kit
- National Environmental Education & Training Foundation Position Statement on Health Professionals and Environmental Health Education
- Population-focused Nurse Practitioner Competencies
- Peaceful Death: Recommended Competencies and Curricular Guidelines for End-of-Life Nursing Care
- Psychiatric-Mental Health Nurse Practitioner Competencies
- Quality Improvement Series: Quality Assurance and Performance Improvement (QAPI) in Healthcare for Older Adults
- Recommendations for Undergraduate Public Health Education
- Recommended Baccalaureate Competencies and Curricular Guidelines for the Nursing Care of Older Adults (2010)
- SBIRT Teaching Resources
- Substance Use Education for Nurses: Screening, Brief Intervention and Referral to Treatment (SBIRT)
- University of Pittsburgh, 2014
Join Us for a Webinar Series on Alcohol SBI with AACN

- **Part I: What Nursing Faculty Need to Know**
  - October 1st: 2 – 3 PM EST

- **Part II: Integration into Undergraduate Nursing Curricula**
  - November 5th: 2 – 3 PM EST

- **Part III: Integration into Graduate Nursing Curricula**
  - December 3rd: 2 – 3 PM EST

**REGISTER:** [www.aacn.nche.edu/webinars](http://www.aacn.nche.edu/webinars)
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