Changing Baccalaureate Nursing Students’ Perceptions of Working with Substance-Using Patients through SBIRT Training

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SBIRT – Needed

• Prevalence

  – 22.5m meet threshold for substance use disorder (SUD; abuse or dependence; SAMHSA OAS, 2010)

  – 68m have ‘unhealthy use’ (Humphreys & McLellan, 2010)

  – 23% of patients across medical settings had risky substance use or likely substance use disorder (SAMHSA-funded 6-state study; Madras et al., 2008)
SBIRT - Effective

• **SBIRT is effective in primary care, ED, and other settings** (e.g., Academic Ed Research Collaborative, 2007, 2010; Babor et al., 2007; Fleming et al., 2002)

• **SBIRT implemented by nurses is effective** (Desy, Howard & Perhats, 2010; Lane et al., 2008)

• **Reductions in mortality, alcohol use, health care costs, criminal justice involvement, and societal costs** (Cuijpers, 2004; Academic, 2010; Gentilello, 1999; Wells-Parker, 2002)
Healthcare Provider Barriers to SBIRT

- Lack of knowledge, training, skills and resources
- Need to triage competing medical issues
- Discomfort in discussing substance use with patients
- Negative or stereotyped attitudes towards people who use substances

Friedmann, 2000; Van Hook, 2006; Van Hook, 2006 & Broyles, 2010
Attitudes Regarding Substance Use

• Health care professionals have negative attitudes
  – Substance use (even to excess) is a choice
  – People who use substances to excess do not care about themselves
  – Treatment is not effective

• Doctors, nurses, other healthcare providers

Aalto, Pekuri, & Seppa, 2001; Holland, Pringle, & Barbetti, 2009
Education/Training Can Change Attitudes

• Longitudinal study of medical students
  – Increased effectiveness in helping reduce drug use
  – No change in responsibility to intervene or effectiveness to reduce alcohol use (Cape, Hannah & Sellman, 2006)

• Increased positive attitudes among student nurses
  (e.g., Meng et al., 2007; Rasool & Rawaf, 2008; Vadlamudi et al., 2008)
ATN-SBIRT Project

- University of Pittsburgh - School of Nursing
- Institute for Research, Education and Training in Addictions (IRETA)
- 3-year HRSA funded project
  - Project Goals
    - Integrate a sustainable substance use educational and skill-building component within an undergraduate nursing curriculum
    - Add 140 nurses annually to the workforce who are able to provide SBIRT services
ATN-SBIRT - Curriculum Integration

Junior year

• 6 in-class hours: 11-module curriculum
  – Lecture, discussion, reading, role plays, case vignettes

• Clinical rotations: Practice and competency assessments by faculty and community preceptors

• Simulation lab: Session targeting culturally competent practice

Senior year

• Booster session: Review and update
ATN- SBIRT 11-Module In-Class Curriculum (6 hours)

<table>
<thead>
<tr>
<th>Module</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Characteristics and Overview of Substance Use Disorders</td>
</tr>
<tr>
<td>2</td>
<td>Pathophysiology of Addiction</td>
</tr>
<tr>
<td>3</td>
<td>Treatment Issues</td>
</tr>
<tr>
<td>4</td>
<td>Barriers to Treatment</td>
</tr>
<tr>
<td>5</td>
<td>Identification: Signs and Symptoms</td>
</tr>
<tr>
<td>6</td>
<td>Assessments Overview</td>
</tr>
<tr>
<td>7</td>
<td>SBIRT (Screening, Brief Intervention and Referral to Treatment)</td>
</tr>
<tr>
<td>8</td>
<td>Treatment Approaches</td>
</tr>
<tr>
<td>9</td>
<td>Culturally Appropriate Care</td>
</tr>
<tr>
<td>10</td>
<td>Impaired Professional</td>
</tr>
<tr>
<td>11</td>
<td>Demonstration of Knowledge and Skills for the Identification of Use, Misuse, and Dependence of Drugs and Alcohol</td>
</tr>
</tbody>
</table>
Progress of Program – 2 years

• 39 faculty and preceptors trained and received continuing education units
  – www.nursing.pitt.edu/academics/ce/online.jsp
  – Addiction Training for Nurses using SBIRT: 1.5 CEs

• 392 BSN (traditional and 2nd degree) students trained

• 225 attended the Senior year booster session
Current Study Goal

• Assess effect of education and training on attitudes
  – Role Adequacy
  – Role Legitimacy
  – Role Support
  – Motivation
  – Task-Specific Self-Esteem
  – Work Satisfaction
Methods - Participants (n=319 juniors)

<table>
<thead>
<tr>
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<th>Percent</th>
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<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>88%</td>
</tr>
<tr>
<td>Male</td>
<td>12%</td>
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<tr>
<td><strong>Hispanic/Latino</strong></td>
<td>2%</td>
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<tr>
<td><strong>Race</strong></td>
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</tr>
<tr>
<td>African American</td>
<td>4%</td>
</tr>
<tr>
<td>Asian</td>
<td>4%</td>
</tr>
<tr>
<td>White</td>
<td>90%</td>
</tr>
<tr>
<td>*Other</td>
<td>2%</td>
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</tbody>
</table>

*Too few students to show by race
Attitudes – Baseline & 30-days Post In-Class Training

• Alcohol and Alcohol Problems Perception Questionnaire (AAPPQ; Shaw et al., 1976)
  – 30 items, Likert scale 1 = Strongly Disagree, 7 = Strongly Agree
  – 6 subscales
  – Acceptable reliability, Cronbach’s Alpha .69 - .90

• Drug and Drug Problems Perception Questionnaire (DDPPQ; Watson et al., 2003)
  – 22 items, same Likert 1-7 scale
  – 6 subscales
  – Acceptable reliability, Cronbach’s Alpha .64 - .90
Role Adequacy

- I feel I have a working knowledge of alcohol and alcohol related problems.

Role Legitimacy

- I feel I have the right to ask patients questions about their drinking when necessary.

Role Support

- If I felt the need when working with drinkers I could easily find someone who would help me clarify my professional responsibilities.
AAPPQ/DDPPQ - Subscales

• **Motivation**
  – I want to work with drinkers.

• **Task-Specific Self-Esteem**
  – I feel I have the right to ask patients questions about their drinking when necessary.

• **Work Satisfaction**
  – If I felt the need when working with drinkers I could easily find someone who would help me clarify my professional responsibilities.
### Pre/Post-Training Changes in Student Perceptions of Role with Patients Who Use Alcohol (N=319)

<table>
<thead>
<tr>
<th></th>
<th>Pre-training</th>
<th>Post-training</th>
<th>Z&lt;sup&gt;a&lt;/sup&gt;</th>
<th>p&lt;sup&gt;b&lt;/sup&gt;</th>
<th>r&lt;sup&gt;c&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>Role Adequacy</td>
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<td>26</td>
<td>13.41</td>
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<td>Motivation</td>
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<td>-2.99</td>
<td>.003</td>
<td>.17</td>
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<tr>
<td>Work Satisfaction</td>
<td>16</td>
<td>17</td>
<td>4.21</td>
<td>&lt;.001</td>
<td>.24</td>
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<tr>
<td>Task-Specific Self-Esteem</td>
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<td>22</td>
<td>4.97</td>
<td>&lt;.001</td>
<td>.28</td>
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</table>

<sup>a</sup> Wilcoxon Signed Ranks tests;  <sup>b</sup> Adjusted alpha of p<.008;  <sup>c</sup> Effect size, r
Pre/Post-Training Changes in Student Perceptions of Role with Patients Who Use Drugs (N=319)

<table>
<thead>
<tr>
<th></th>
<th>Pre-training Median</th>
<th>Post-training Median</th>
<th>Z&lt;sup&gt;a&lt;/sup&gt;</th>
<th>p&lt;sup&gt;b&lt;/sup&gt;</th>
<th>r&lt;sup&gt;c&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td>Role Adequacy</td>
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<td>29</td>
<td>12.97</td>
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<tr>
<td>Role Legitimacy</td>
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<td>12</td>
<td>7.00</td>
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<td>.39</td>
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<tr>
<td>Role Support</td>
<td>12</td>
<td>12</td>
<td>3.34</td>
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<tr>
<td>Motivation</td>
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<td>Task-Specific Self-Esteem</td>
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</table>

<sup>a</sup> Wilcoxon Signed Ranks tests;  <sup>b</sup> Adjusted alpha of p<.008;  <sup>c</sup> Effect size, r
Summary

• Alcohol and drugs: Similar increases in role adequacy, role legitimacy, and role support

• Alcohol: Increased work satisfaction and self-esteem, decreased motivation
  – Decreased motivation may suggest need for more training, ‘finding out how much you don’t know’

• Drugs: Lack of significant findings may represent need for more focused education related to drug use
Limitations

• Not a very diverse sample of students

• Students may gain further confidence and competence following simulation and clinical experiences in ATN-SBIRT
Discussion

- Importance of health care provider attitudes
  - Stigma toward patients who use substances
  - Conflict between provider’s own alcohol use and SBIRT
  - Motivational enhancement therapy with residents about SBIRT; decreased barriers, increased satisfaction (Hettema et al., 2009)

- Nurses compose the greatest percentage of health care workers and serve in a variety of settings
  - Newly funded project – SBIRT training for ER nurses

- Inclusion of SBIRT training in nursing curricula is a “next step” to hasten implementation
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