Individual-Focused College Student Drinking Prevention: Revisiting the 2002 NIAAA Task Force Report

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Campus reactions to the 2002 NIAAA Task Force report

Awareness of the 2002 NIAAA Task Force Recommendations

Source: Nelson et al. (2010)
Campus reactions to the 2002 NIAAA Task Force report

76% of colleges surveyed offered 1 or more Tier 1 program

Plenary Goals

- Increase awareness of the NIAAA College Drinking Task Force’s tier system of efficacy & recommended strategies
- Review the body of evidence that supported the Task Force recommendations
- Enhance understanding of commonalities and differences among recommended “Tier 1” programs
- Share “hot off the presses” evidence that updates the Task Force report, including new programs
- Summarize key “take home” messages
- Leave 5-10 minutes for Q&A
NIAAA Task Force Tier System

- **Tier 1**: Evidence of *effectiveness* among college students (≥2 studies supporting efficacy)
- **Tier 2**: Evidence of success with *other populations* that could be applied to college environments
- **Tier 3**: Evidence of *logical and theoretical promise*, but require more comprehensive evaluation
- **Tier 4**: Evidence of *ineffectiveness*

Evidence considered in the NIAAA Task Force Recommendations

- **MCST**: Combining cognitive-behavioral skills with norms clarification and motivational enhancement; a.k.a., *multi-component skills training*
- **BMI**: Brief motivational enhancement interventions
- **AEC**: Alcohol expectancy challenge

![Bar chart showing the number of studies for each tier and category](chart.png)

- **Positive Effects**
- **Null/Neg. Effects**

<table>
<thead>
<tr>
<th>MCST</th>
<th>BMI</th>
<th>AEC</th>
<th>Education Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Tier 1&quot;</td>
<td>7</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td># of Studies</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
What's COMMON to Tier 1 Strategies?

1. Teach moderate-drinking & life management skills
2. Alcohol education to support skill-use
3. Enhance motivation for change
4. Correct misperceived drinking norms
5. Challenge positive alcohol expectancies

1 container ≠ 1 drink

Drugs per occasion

<table>
<thead>
<tr>
<th>You drink...</th>
<th>You thought other students drink...</th>
<th>Other students actually drink...</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

Alcohol does NOT make you “Dancing with the Stars” material.

What DIFFERENTIATES Tier 1 strategies?

<table>
<thead>
<tr>
<th>Focus</th>
<th># of Sessions</th>
<th>Structure</th>
<th>Guided by</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCST Building/strengthening</td>
<td>4 to 6+</td>
<td>In-person Group</td>
<td>Manual / agenda</td>
</tr>
<tr>
<td>safer-drinking skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMI Increasing awareness &amp;</td>
<td>1 or 2</td>
<td>In-person Individual</td>
<td>Personalized feedback*</td>
</tr>
<tr>
<td>motivation for change</td>
<td></td>
<td>(or Group)*</td>
<td></td>
</tr>
<tr>
<td>AEC Challenging positive</td>
<td>1</td>
<td>In-person Group</td>
<td>Alcohol administration</td>
</tr>
<tr>
<td>expectancies</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Personalized feedback is a cornerstone of the BASICS program, the most well-evaluated BMI.
Delivered as a stand-alone print or electronic intervention:

PFI = personalized feedback intervention
PNF = personalized normative feedback
MORE ON YOUR B.A.C.

Using the information you provided, here are the values for your past month peak BAC and your typical week peak BAC compared to the average typical and average peak for other UW students:

- Past month peak BAC:
  - Your peak: 0.21
  - Average typical: 0.13
  - Average peak: 0.15

- Typical week peak BAC:
  - Your peak: 0.06
  - Average typical: 0.04
  - Average peak: 0.06

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Press – Gastrointestinal upset

1. – Loss of balance, mood, and/or sleep

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Dear alcohol really affect men and women differently?

BAC is affected by not just the amount we drink. If a man and woman both drink the same amount over the same amount of time, she will get a higher blood alcohol content (BAC) due to her body differences. Find out why, please click on the sign.

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SEX DIFFERENCE ADDENDUM APPEARS HERE IN OMAHA FEEDBACK IF LINK IS CLICKED. FOR IN-PERSON INTERVENTION, HANDOUT IS OFFERED HERE.

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BMI > PFI > PNF

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STANDARD DRINK CHART – What they are really drinking!

PERSON 1: Two shots of vodka 1.25 oz

PERSON 2: Two shots of rum 1.25 oz

PERSON 3: Two shots of whiskey 1.25 oz

PERSON 4: Two shots of bourbon 1.75 oz

PERSON 5: Two shots of gin 1.25 oz

A pretty different night is in store for each of them! Click here to learn more about what a standard drink is and how to compute a standard drink.

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BMI > PFI > PNF
Examples of Web-based PFI

Exponential growth in alcohol prevention RCTs

Larimer & Cronce (2002): 32 studies
Larimer & Cronce (2007): 42 studies
Cronce & Larimer (2011)*: 36 studies

*Alcohol Research & Health, 34(2), 210-221.
Summarizing the Evidence

“Thumbs up” =
Reduced drinking and/or related consequences; OR protective effect

“Thumbs down” =
Intervention no different than assessment alone; OR increased drinking

MCST (CBT skills, Norms Clarification & MET)
1984-2010

- Apparent trend toward fewer studies evaluating MCST, perhaps due to increased resource/participant burden relative to BMI
- Parent-based intervention (PBI) facilitating communication around alcohol use combined with BMI for students is more effective than BMI alone in preventing negative consequences
In-person BMI (most with PFI/PNF) 1984-2010

- Effects on negative consequences may persist up to 4 years (BASICS)
- Potential delayed effects on negative consequences
- BMI-alone and MCST-alone are equivalent on most outcomes, but BMI may be superior to MCST for some outcomes (3 studies: negative consequences; high-risk drinking; weekend/weekday quantity)

AEC interventions 1984-2010

- Experiential AEC shown to be effective with men.
  - Mixed findings for women, with some evidence of positive effects when gender-specific expectancies are challenged in single-gender groups.
- Didactic and video AEC generally not effective
**Education/Awareness ONLY\n1984-2010**

- Education/awareness only continues to be ineffective in changing drinking outcomes other than alcohol knowledge
- Many studies included an education condition as comparison group
- Only 1 new study since 2007 that evaluated education-only

**Stand-alone computerized or mailed PFI (most with PNF) 1984-2010**

- Few studies compare BMI w/ PFI to PFI-alone (only 6 since 1999)
- BMI w/ PFI and PFI-alone comparable on most outcomes
- 2 found in-person BMI w/ PFI to be more efficacious than stand-alone PFI on at least some outcomes (e.g., drinking/consequences composite)
- Total includes 3 evaluations of e-Check Up to Go (e-CHUG) with positive results (decreased drinking [3] & consequences [1])
Stand-alone PNF (incl. ESP) 1999-2010

- Changes in norms mediated effects on drinking outcomes
- Level of specificity with respect to reference group may influence outcomes (e.g., 1 study found gender-specific PNF more effective than gender-neutral PNF)
- Findings for event specific prevention (ESP) related to 21st birthday drinking outcomes are mixed.

Multi-component education-focused programs 1999-2010

- Programs that have historically been education-only, or predominant education component, but include some elements found in BMI / PFI / PNF.
- Efficacy may be version specific, and conclusions should NOT be generalized.
- MCEFPs include: Alcohol 101 (-2, -2), Alcohol 101 Plus (-1, +1), College Alc (+1), MyStudentBody.com (+1), AlcoholEdu for Sanctions (+1), AlcoholEdu for College (3...)
AlcoholEdu for College RCTs (in Cronce & Larimer, 2011)

Hustad et al., 2010 (version 9.0 [per Wyatt, DeJong & Dixon, in press]; only included 18+)
- Decreased alcohol consumption (or smaller increases in alcohol consumption) equal to e-CHUG and > assessment only (AO).
- Decreased negative consequences > AO and no different than e-CHUG, although decreases in e-CHUG were statistically ns.

Lovecchio et al., 2010 (version 8.0; only included 18+)
- Smaller increases in alcohol consumption > AO.
- Decreased negative consequences & positive alcohol expectancies > AO.
- No differences on high-risk or protective alcohol behaviors.
- Decreases in responsible drinking behaviors.

Croom et al., 2009 (2004, 2006 or 2007 version?; included 17+)
- Both groups increased alcohol consumption, consequences, and other alcohol-related risk behaviors, with no significant differences between groups.
  - Exception: Smaller % played drinking games, but larger % failed to use safe sex practices.

Other studies of AlcoholEdu:

Wall, 2007 (2003 version?; ages?)
- Did not randomly assign individuals (or groups) to intervention or control.
- “Randomization” was post hoc, comparing “control participants’” pre-test scores to “intervention participants’” post-test scores, which doesn’t control for the effect of assessment reactivity.
- Extremely OVER powered (N = 20,150), so differences questionable.
- Immediate post-test only with no follow-up.

Paschall et al., 2011 (version not specified; only included 18+)
- Random assignment at the level of the university.
- New cross-sectional random sample (N=200) of students each quarter; 44%-49% survey response rate.
- Wide range of intervention completion rate: 4%-100%.
- Decreased frequency of alcohol use and binge drinking relative to control at immediate post-assessment (Fall).
- No effect evident in Spring, even among schools with high intervention completion rates.
- Did not examine alcohol-related consequences.

Wyatt, DeJong & Dixon, in press – Time series analysis (not RCT)
Special Populations: Mandated Students 1984-2010

- **Brief Alcohol Screening and Intervention for College Students**
  - # Evaluated
  - MCST: 4
  - BMI: 8
  - AEC: 1
  - PFI/PNF: 3
  - MCEFP: 3
  - Education Only: 1

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**Pros/cons of different prevention programs**

<table>
<thead>
<tr>
<th></th>
<th>MCST (e.g., ASTP)</th>
<th>BMI (e.g., BASICS)</th>
<th>PFI / PNF (e.g., e-CHUG)</th>
<th>Experiential AEC</th>
<th>AlcoholEdu</th>
<th>Other MCEFP (e.g., CollegeAlc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development/Training Cost</td>
<td>$</td>
<td>$$</td>
<td>*$ - $$</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Implementation Cost</td>
<td>$$</td>
<td>$$</td>
<td>*$ - $$</td>
<td>$$$$</td>
<td>$$ - $$$</td>
<td>$$ - $$$</td>
</tr>
<tr>
<td>Human Resources</td>
<td>1-2 people</td>
<td>1-2 people</td>
<td>-</td>
<td>1-2 people</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Specialized Training Req.</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Specialized Resources Req.</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Reach</td>
<td>Groups (8-12 students)</td>
<td>Individual students</td>
<td>All students</td>
<td>Groups (8-12 students)</td>
<td>All students</td>
<td>All students</td>
</tr>
<tr>
<td>Range of Effect Sizes**</td>
<td>$d = 0.13 - 0.26$ (w/ BMI)</td>
<td>$d = 0.21 - 1.06$</td>
<td>$d = 0.29 - 0.85$</td>
<td>$d = 0.00 - 0.36$</td>
<td>$d = 0.56 - 0.75$</td>
<td>$d = 0.15 - 0.38$</td>
</tr>
<tr>
<td>Length of Effects on Drinking</td>
<td>Up to 1 year</td>
<td>Up to 4 years</td>
<td>Up to 1 year</td>
<td>Up to 3 months</td>
<td>Up to 1 month</td>
<td>Variable (short-term)</td>
</tr>
</tbody>
</table>

* FREE PFI: Check Your Drinking beta version: http://notes.camh.net/efeed.nsf/newform
  Doumas & Hannah, 2008; Doumas & Haustveit, 2008; Doumas, McKinley & Book, 2009 all found positive effects of this version.
  ** Based on studies included in Cronce & Larimer, 2011
Conclusions: Looking BACK

- Overwhelming support for BMI and related interventions incorporating Motivational Interviewing style, PFI, PNF, and AEC components
  - Evidence supporting e-CHUG, CheckYourDrinking.net and other electronic personalized feedback programs adds to growing evidence for PFIs.
  - Less consistency on changing consequences than drinking per se
  - Longer follow-ups necessary; in-person BMI associated with emergent effects on consequences
- Emerging evidence in support of one MCEFP—AlcoholEdu for College—but more research is needed (RCTs = 4 vs. 41 BMI, 25 PFI).

Conclusions: Looking FORWARD

- Need more research on BMIs and PFIs targeting multiple risk behaviors & spanning the alcohol/mental health divide
  - Alcohol and marijuana use
  - Alcohol/marijuana use and problematic gambling behavior
  - Depression and alcohol use
- Future RCTs of AlcoholEdu, e-CHUG and other electronic prevention programs would benefit from:
  - Including matriculating freshman <18 years old.
  - Incorporating baseline & post-assessment that is independent of the program.
  - Gauging level of engagement and depth of processing.
  - Including longer, longitudinal follow-up.
Take Home Messages

- Individual-focused programs need to be considered one “piece” of a larger “prevention puzzle.”
- Strategies recommended by the NIAAA Task Force (i.e., MCST, BMI, experiential AEC) continue to produce drinking reductions, but there are other options that current science suggests work (i.e., PFIs, PNF)
- Reach needs to be weighed against strength and duration of effect taking into consideration initial/ongoing costs and resource demands.
  - Some costs can be diffused through collaboration & technology
- The science is constantly evolving, and prevention approaches need to be regularly revisited.

Thank You!

and thank you to…
NIAAA (T32 AA007455)
Mary E. Larimer, Ph.D.
Jason R. Kilmer, Ph.D.
Stephanie Gordon