Overview of this presentation...

- Big thanks to Holly Deering and Susie Bruce
- Prevention approaches and what the science says about them
- Examples of potential “hooks” in prevention
- Impacting change on campus
Traditional Messages

Harm Reduction

What is Harm Reduction?

• The most harm-free or risk-free outcome after a harm reduction intervention is abstinence.

• However, harm reduction approaches acknowledge that any steps toward reduced risk are steps in the right direction.
How are these principles implemented in an intervention with college students?

- Legal issues are acknowledged.
- Skills and strategies for abstinence are offered.
- However, if one makes the choice to drink, discuss ways to do so in a less dangerous and less risky way.
- A peer educator, presenter, or program provider must elicit personally relevant reasons for changing.
  - This is done using the Stages of Change model and Motivational Interviewing.

Trans-Theoretical Model
(The Stages of Change)

- Precontemplation
- Contemplation
- Preparation/Determination
- Action
- Maintenance
- Relapse

Essentials of a Motivational Enhancement Approach

- Non-judgmental and non-confrontational (“the spirit” of MI)
- Emphasizes meeting people where they are in terms of their level of readiness to change
- Utilize MI strategies to elicit personally relevant reasons to change
- Often can find the “hook” that prompts contemplation of or commitment to change
- When person is ambivalent, considers ways to explore and resolve ambivalence

What is resistance?

- Resistance is verbal behaviors
- It is expected and normal
- It is a function of interpersonal communication
- Continued resistance is predictive of (non) change
- Resistance is highly responsive to our style

OARS:
Building Blocks for a Foundation

- Ask Open-Ended Questions
  - Cannot be answered with yes or no
  - We, as the ones asking the question, do not know where answer will lead
    - "What do you make of this?"
    - "Where do you want to go with this now?"
    - "What ideas do you have about things that might work for you?"
    - "How are you feeling about everything?"
    - "How’s the school year going for you?"
    - "Tell me more about that."
  - This is different than the closed-ended “Can you tell me more about that?” or “Could you tell me more about that?”

Goals of a Brief Intervention

- Prompt consideration of change
- Prompt commitment to change
- Reduce resistance/defensiveness
- Plant seeds
- Explore behavior change strategies
Considering Responses: What Works?

The field has, most definitely, identified efficacious strategies that result in significant reductions in alcohol use and related consequences.

Tier 1: Evidence of Effectiveness Among College Students

- Combining cognitive-behavioral skills with norms clarification and motivational enhancement interventions.
- Offering brief motivational enhancement interventions.
- Challenging alcohol expectancies.

From: "A Call to Action: Changing the Culture of Drinking at U.S. Colleges," NIAAA Task Force
People are influenced by their subjective interpretation of a situation rather than by the actual situation (Lewin, 1943).

We are influenced by our perception of others’ attitudes, behaviors, and expectations rather than by their actual attitudes, behaviors, or expectations.

Our perceptions and interpretations are often inaccurate.

Source: Neighbors & Kilmer (2008)

Norms Clarification

• Examines people’s perceptions about:
  ◦ Acceptability of excessive behavior
  ◦ Perceptions about the prevalence of drinking among peers
  ◦ Perception about the rates of drinking by peers

Specific Tips for Reducing the Risk of Alcohol Use

• Set limits
• Eat prior to or while drinking
• Keep track of how much you drink
• Space your drinks
  ◦ Alternate alcoholic drinks w/non-alcoholic drinks
• Avoid trying to “out drink” or keep up with others
• Avoid or alter approach to drinking games
• If you choose to drink, drink slowly
• Use a designated driver
• Don’t accept a drink when you don’t know what’s in it
• Have a friend let you know when you’ve had enough
What Is A Standard Drink?

- 12 oz. beer
- 10 oz. microbrew
- 10 oz. wine cooler
- 8 oz. malt liquor
- 8 oz. Canadian beer
- 8 oz. ice beer
- 6 oz. ice malt liquor
- 4.5 oz. fruit-flavored, high-ethyl alcohol content malt beverages (formerly alcoholic energy drinks)*
- 4 oz. wine
- 2.5 oz. fortified wine
- 1.25 oz. 80 proof hard alcohol
- 1 oz. 100 proof hard alcohol

Questions...

- When people start to lose their buzz, what do they usually do?
- Do they ever get that same buzz back?
Setting a Limit

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From: “A Call to Action: Changing the Culture of Drinking at U.S. Colleges,” NIAAA Task Force
The Basics on BASICS
Brief Alcohol Screening and Intervention For College Students

• Assessment
• Self-Monitoring
• Feedback Sheet
• Review of Information and Skills Training Content

(Dimeff, Baer, Kivlahan, & Marlatt, 1999)
Tier 1: Evidence of Effectiveness Among College Students

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From: "A Call to Action: Changing the Culture of Drinking at U.S. Colleges," NIAAA Task Force
• What are ways alcohol affects you positively in social situations?
• What are ways alcohol affects you in “not-so-good” ways in social situations?
• Have you ever had alcohol do different things for you at different times?

Expectancies

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>No Alcohol</th>
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<tr>
<td>Alcohol</td>
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<tr>
<td>No Alcohol</td>
<td></td>
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</tbody>
</table>
The potential role of expectancies

Jane Metrik's balanced-placebo research from Brown University
What Have These Shown?
• Combining cognitive-behavioral skills with norms clarification and motivational enhancement interventions.
  ▫ Reductions in drinking rates and associated problems (e.g., ASTPI)
• Offering brief motivational enhancement interventions.
  ▫ Reductions in drinking rates and associated problems (e.g., BASICS)
• Challenging alcohol expectancies.
  ▫ Reductions in alcohol use

What Does This Mean?
• Prevention and interventions can go a long way to impacting student health, and can be a part of your overall strategic plan!

Some examples of information that, in a motivational framework, could prompt consideration of change among intercollegiate athletes

Understanding muscle contractions
• Concentric contraction:
  ▫ When a muscle is activated and required to lift a load that is less than the maximum tension it can generate
  ▫ Muscle shortens as it contracts
  ▫ Raising of a weight during a bicep curl
Understanding muscle contractions

• Eccentric contraction:
  ▫ External force on the muscle is greater than the muscle can generate
  ▫ Muscle lengthens as it contracts
  ▫ Lowering of a weight during a bicep curl

Understanding muscle contractions

• Isometric contraction:
  ▫ Muscle is activated but remains at a constant length
  ▫ Carrying an object in front of you

THE EFFECT OF POST-MATCH ALCOHOL INGESTION ON RECOVERY FROM COMPETITIVE RUGBY LEAGUE MATCHES

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Abstract
Murphy AP, Sang AE, Sharp ME, Moffett G, and Drown R. The effect of post-match alcohol ingestion on recovery. J Physio 19: 1387-1394, 2016. This study investigated the effects of alcohol ingestion on recovery following rugby league matches. Recovery following professional rugby league matches is an active area of research. Alcohol ingestion has been shown to impair athletic performance; thus, the aim of this study was to determine if alcohol ingestion also impairs recovery from a professional rugby league match.

Key Words: rugby, performance, mental health, alcohol, (2016)
Post-Game Alcohol Consumption on Recovery

- Sample of men, 19.9 years of age on average, rugby players in Australia
- Immediately after a match, ate a set/standard meal, then were randomly assigned to:
  - Consume a set number of beverages
    - Orange juice
    - Orange juice with vodka

Post-Game Alcohol Consumption on Recovery

- Engaged in counter movement jump test (CMJ) to measure lower-body power
- Measured CMJ peak 16 hours post-match:
  - No alcohol: Improved 10.5%
  - Alcohol: Only improved 2.3%

Post-Game Alcohol Consumption on Recovery

- Cognitive functioning:
  - Alcohol consumption reduced decision making speed
  - Alcohol consumption reduced quality of responses to visual stimuli
Post-Game Alcohol Consumption on Recovery

- Their conclusion to maximize recovery and enhance performance?
- “Alcohol should be avoided...within 16 hours” after a competition or competitive practice regardless of the use of other recovery modalities

Alcohol Consumption on Athletic Performance

- Sample of men in New Zealand
- Performed 300 maximal eccentric contractions of the quadriceps
- Were randomly assigned to consume a set number of beverages
  - Orange juice
  - Orange juice with vodka
Alcohol Consumption on Athletic Performance

- Always normally observed losses during recovery, but researchers measured decreases in peak strength 36 hours later as a function of what people consumed.

Alcohol Consumption on Athletic Performance

- **Isometric contractions:**
  - Orange juice group: 12% off of peak
  - Alcohol group: 34% off of peak

- **Concentric contractions:**
  - Orange juice group: 28% off of peak
  - Alcohol group: 40% off of peak

- **Eccentric contractions:**
  - Orange juice group: 19% off of peak
  - Alcohol group: 34% off of peak

Conclusion?

- **1)** Participants in sports containing intense eccentric muscular work should be encouraged to avoid alcohol intake in the post-event period if optimal recovery is required.
- **2)** Post-exercise acute alcohol consumption magnifies exercise-induced muscle damage and related decrements in muscular performance.
Tolerance


Types of learning

• Classical Conditioning
  ▫ Pavlov
    • Association of two events such that one event acquires the ability to elicit responses formerly associated with the other event
CNS Stimulation (CNS speeds up)

Baseline (normal activity)

Desired setting

CNS Depression (CNS slows down)

CNS Stimulation (CNS speeds up)

Baseline (normal activity)

CNS Depression (CNS slows down)

CNS Stimulation (CNS speeds up)

Baseline (normal activity)

CNS Depression (CNS slows down)
Considering cues

- **Even taste can be a cue**
  - Siegel (2011) noted that college students who consume alcohol in the presence of usual taste cues (e.g., a beer flavored beverage) display greater tolerance to intoxicating effects than when consumed in a novel blue, peppermint-flavored beverage of the same strength.

Conclusion

- **“The situational specificity of tolerance”**
  - If alcohol is presented “in a manner divorced from the usual alcohol-associated stimuli, the effects of the alcohol are enhanced (Siegel, 2011, p. 358).”
Implications for the college setting

- Consider high-risk events that can be associated with changes in cues:
  - Spring Break
  - 21st birthdays
  - Halloween
- Students studying abroad
- As a field, we still need to research ways to incorporate this information into prevention/intervention efforts, both for those who make the choice to drink and for those who may be bystanders intervening on someone's behalf

Wrapping Up

Lessons Learned

- Any one thing we do is a part of an overall puzzle.
  - Consider where your particular piece fits
  - Identify the other pieces on your campus or community when considering a strategic plan or approach
    - Policies/Enforcement Efforts (including unintended repercussions)
    - Environmental approaches
    - Partnerships/Coalitions
    - Prevention/Intervention Efforts
    - Screening
    - Outreach
    - Bystander approaches
  - Find the missing pieces when examining "next steps"
Lessons Learned

- There are different “hooks” that could prompt thinking about or committing to change, and these hooks matter.
- Consider “hooks” as you consider your plan.

Lessons Learned

- It’s o.k. for things to be a work in progress.

WORK IN PROGRESS

Looking ahead
Understand high-risk times of year, and both increase enforcement and offer event-specific prevention.

**College Student Drinking**

Academic Drinking Pattern Among First Year Students

Daily and weekly alcohol consumption over academic year. Error bars (95% CI) are shown above the mean only. Asterisks (*) refer to significant adjacent week differences (Bonferroni adjusted level of p<.002) (Tremblay, et al., 2010)
Individually-focused approaches must be packaged with environmentally-focused approaches, and vice-versa

- People get nervous about the possibility of changing cultures and traditions that have been around “forever.”
- Consider sports for a minute...
- In sports, home field advantage absolutely matters
- We try and create an environment that will best support the individuals on the field.
• You have the home field advantage...you can work
together to achieve changes you are looking for (or
wanting)
• The message you send to new students within a team or
group will help paint their impression of what your group
is like
• The message you send to existing students/teammates
will help communicate what you want and expect
• If there is something you want changed –
work together to do so.
• Consider what will best set you up for a win.

Best of luck for the remainder of the
2014-2015 academic year!

Jason Kilmer
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