Addressing Substance Use with Adolescents and Young Adults: Trends, Needs, Questions, and Strategies

Overview of this presentation...

- Big thanks to Julia Havens
- (1) Identify emerging research questions related to substance use and young adults
- (2) Understand applications of classical conditioning to high-risk events related to alcohol and other drug use
- (3) Consider applications of brief intervention strategies to conversations with young adults

A quick word about college campuses
The 3-in-1 Framework

• Individuals, Including At-Risk or Alcohol-Dependent Drinkers
• Student Body as a Whole
• College and the Surrounding Community

From: "A Call to Action: Changing the Culture of Drinking at U.S. Colleges," NIAAA Task Force

Tier 1: Evidence of Effectiveness Among College Students

• Combining cognitive-behavioral skills with norms clarification and motivational enhancement interventions (ASTP only program mentioned by name as an example).
• Offering brief motivational enhancement interventions (BASICS only program mentioned by name as an example).
• Challenging alcohol expectancies.

From: "A Call to Action: Changing the Culture of Drinking at U.S. Colleges," NIAAA Task Force
Updates

• Updates in:
  ▫ 2007
  ▫ 2011
  ▫ 2015

• College Alcohol Intervention Matrix (College AIM)
  ▫ Thorough review of environmental approaches, policies, prevention programs, intervention programs, and other approaches
  ▫ Arranged as a grid ("the matrix") so that things like cost, effectiveness, implementation needs, and other issues can be considered

Contributors: Mary Larimer, Traci Toomey, Jessica Cronce
Jason Kilmer, Toben Nelson, Kathleen Lenk

(1) Identify emerging research questions related to substance use and young adults
What does marijuana use among 18-25 year olds look like here in Washington?

What did we do?

• UW Center for the Study of Health and Risk Behaviors (CSHRB) partnered with DBHR
• Internet based survey done May through early July 2014
• Got input from multiple experts, state offices, and tried to use questions with established reliability, validity, and/or normative reference groups
• Participants recruited using a combination of direct mail advertising to a random sample, as well as online advertising (Facebook, Craigslist, Amazon Mechanical Turk, study website, Facebook fan page)

Research Team: Jason Kilmer, Jessica Cronce, Mary Larimer, Theresa Walter, Tim Pace

What did we do?

• Assessed demographics on an ongoing basis and modified strategies to recruit under-represented groups
• Convenience sample, not a random sample
• To improve generalizability, used state census data to weight the sample to more accurately reflect the demographic and geographic diversity of Washington
• Weighted results closely mirror the unweighted results
n=2,101 young adults in Washington between 18-25 years of age

OBTAINED
Mean age: 21.44 years
(S.D. = 2.26 years)

WEIGHTED
Mean age: 21.39 years
(S.D. = 2.25 years)

Other Demographic Information

• OBSERVED
  • Race
    ▫ 72.2% Caucasian/White
    ▫ 11.9% Asian/Asian American
    ▫ 2.1% Black/African American
    ▫ 1.0% American Indian/Alaskan Native
    ▫ 1.0% Native Hawaiian/Pacific Islander
    ▫ 8.1% more than one race
    ▫ 3.5% other
  • Gender identity
    ▫ 58.7% female
    ▫ 40.7% male
    ▫ 0.5% transgender

• WEIGHTED
  • Race
    ▫ 66.3% Caucasian/White
    ▫ 7.7% Asian/Asian American
    ▫ 3.89% Black/African American
    ▫ 1.57% American Indian/Alaskan Native
    ▫ 0.79% Native Hawaiian/Pacific Islander
    ▫ 4.65% more than one race
    ▫ 0.18% other
  • Gender identity
    ▫ 48.12% female
    ▫ 51.39% male
    ▫ 0.49% transgender
Marijuana Use

- **WEIGHTED**
  - Recreational use
    - 43.51% at least once/past year
      - 43.27% of 18-20 year olds
      - 43.67% of 21-25 year olds
  - **WEIGHTED**
    - Medical use
      - 14.74% at least once in the past year
      - 14.02% of 18-20 year olds
      - 15.20% of 21-25 year olds

- Although 56% do not use marijuana, only 2% get this correct. Over half (53%) estimate the typical person their age uses marijuana at least weekly
Perceived Risk: Regular Use

<table>
<thead>
<tr>
<th>BRIDGE DRINKING ON A WEEKEND</th>
<th>REGULAR CANNABIS USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Risk of Physical Harm</td>
<td>Perceived Risk of Physical Harm</td>
</tr>
<tr>
<td>Low</td>
<td>Moderate Risk</td>
</tr>
<tr>
<td>4%</td>
<td>60%</td>
</tr>
</tbody>
</table>

Perceived Risk of Psychological Harm

| Low                        | Moderate Risk       | Great Risk |
| 3%                        | 53%                 | 43%        |

Perceived Risk and Relationship to Use

- Cannabis use is strongly, negatively correlated with:
  - Perceived physical risk from occasional use
    - WEIGHTED: (r=-.3943, p<.001)
  - Perceived physical risk from regular use
    - WEIGHTED: (r=-.4265, p<.001)
  - Perceived psychological risk from occasional use
    - WEIGHTED: (r=-.3836, p<.001)
  - Perceived psychological risk from regular use
    - WEIGHTED: (r=-.3847, p<.001)

Top Places Where People Get Marijuana

(among those who used at least once in the past 30 days)

- Got it from friends: 70%
- Gave money to someone to get it for me: 22%
- Got it from someone with medical marijuana card: 16%
- Got it from a medical marijuana dispensary/service: 14%
- Got it at a party: 14%
- Got it from a sister, brother, or other family member: 9%
- Bought it from a retail store: 6%
- Got it from my parents with their permission: 5%
- Stole it from a dispensary: 4%
- Grew it myself: 2%
- Some other way: 8%
Impaired driving and duration of effects

- Effects on the brain
  - Reaction time is impacted
  - DUI implications – getting set at 5 ng THC/ml of blood
  - Why 5 ng? Same deficits behind wheel of car that we see at .08% for alcohol
  - How long does it take to drop below 5 ng?
  - Grotenhermen, et al., (2007) suggest it takes 3 hours for THC levels to drop to 4.9 ng THC/ml among 70 kg men
  - From a public health standpoint, Hall (2013) recommends waiting up to 5 hours after use before driving

Driving (among those who reported using at least once in the past 30 days)

Next steps?

- Follow-up with existing cohort and recruit new cohort
- Analyze additional data reflecting questions of interest:
  - Geographic/county differences
  - College vs. non-college
  - More under 21 vs. over 21 analyses
Next steps?

- Add questions on dabbing and simultaneous use
  - In the past 30 days, how often have you used alcohol and cannabis (e.g. marijuana, hashish) at the same time so that the effects overlapped (i.e., cross fading)?
    - 0 times
    - 1 times
    - 2-3 times
    - 4-5 times
    - 6 or more times
  - In the past 30 days, how many times have you driven a car or other vehicle within three hours of using alcohol and cannabis (e.g. marijuana, hashish) at the same time so that the effects overlapped (i.e., cross fading)?
    - 0 times
    - 1 times
    - 2-3 times
    - 4-5 times
    - 6 or more times

What do we need to be mindful of related to health and mental health?

Cannabis Use Associated with Risk of Psychiatric Disorders (Hall & Degenhardt, 2009; Hall, 2009; Hall 2013))

- Schizophrenia
  - Those who had used cannabis 10+ times by age 18 were 2.3 times more likely to be diagnosed with schizophrenia
  - “13% of schizophrenia cases could be averted if cannabis use was prevented” (Hall & Degenhardt, 2009, p. 1388)

- Depression and suicide
  - “Requires attention in cannabis dependent” (Hall, 2013)

Screening suggestions
- Revised CUDIT-r
Motivations for Use

Research team utilized qualitative open-ended responses for using marijuana among incoming first year college students to identify which motivations were most salient to this population.

Lee, Neighbors, & Woods (2007)

### Motivations for Use

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<th>Proportion of Associated Reasons</th>
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<td>Enjoyment (e.g., be happy, get high, enjoy feelings)</td>
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<td>Gratification (e.g., relieves anxiety, helps in sleep)</td>
<td>43.81%</td>
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<td>Possession (e.g., new experience, curiously)</td>
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<td>Boredom (e.g., something to do, nothing better to do)</td>
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<td>Anxiety reduction (e.g., I need drugs, feel less anxious)</td>
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<td>7.47%</td>
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<td>Worker's tool (e.g., helps me study, helps me relax)</td>
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<td>Availability (e.g., it’s easy to get, it’s legal)</td>
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<td>Relative low risk (e.g., low health risk, non-harmful)</td>
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**Lee, Neighbors & Woods (2007)**

Enjoyment/fun | Social | Image enhancement |
---|---|---|
Enjoyment (e.g., be happy, get high, enjoy feelings) | 62.14% | 24.33% |
Gratification (e.g., relieves anxiety, helps in sleep) | 43.81% | 14.40% |
Possession (e.g., new experience, curiously) | 41.25% | 13.99% |
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**Lee, Neighbors & Woods (2007)**
Motivations for Use

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<th>Perceived/ Enduring Motive</th>
<th>Perceived of Neighbors</th>
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<tr>
<td>Relaxation (to relax, feel good)</td>
<td>52.1%</td>
<td>32.0%</td>
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<td>Social approval (e.g., feel happy, get high, enjoy feeling)</td>
<td>47.9%</td>
<td>46.4%</td>
</tr>
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<td>New experiences (e.g., peer pressure, friends do it)</td>
<td>41.2%</td>
<td>35.9%</td>
</tr>
<tr>
<td>Coping (depressed, relieve stress)</td>
<td>28.5%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Anxiety reduction</td>
<td>20.9%</td>
<td>41.3%</td>
</tr>
<tr>
<td>Addictive (many, feels nice)</td>
<td>24.9%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Habit (e.g., used to, feels necessary)</td>
<td>12.1%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Availability (e.g., easy to get, item affected)</td>
<td>13.1%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Medical use (physical pain, have headache)</td>
<td>10.8%</td>
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Withdrawal: Cannabis

Diagnostic Criteria

292.0 (F12.208)

A. Cessation of cannabis use that has been heavy and prolonged (i.e., usually daily or almost daily use over a period of at least a few months).
B. Thors (or more) of the following signs and symptoms develop within approximately 1 week after criterion A.
1. Irritability, anger, or aggression.
2. Nervousness or anxiety.
3. Sleep difficulty (e.g., insomnia, disturbing dreams).
4. Increased appetite or weight loss.
5. Memory loss.
6. Depressed mood.
7. At least one of the following physical symptoms causing significant discomfort: abdominal pain, dry mouth, nausea, sweating, fever, chills, or headache.
C. The signs or symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
D. The signs or symptoms are not attributable to another medical condition and are not better explained by another mental disorder, including intoxication or withdrawal from another substance.

What’s happening in the illicit market, what’s happening with enforcement, and what is the impact on youth and young adults?
"At least for now, Seattle Police plan to look the other way on the latter part until people get used to the new law."
City officials and business leaders say they are embarking on an ambitious effort to shut down open-air drug dealing and associated crime in Seattle’s downtown core with its new ‘9½ Block Strategy’.

Seattle residents and visitors should not be forced to navigate a dangerous open-air drug market between the downtown retail core and Pike Place Market,” Murray said.

From Seattle Times, April 23, 2015
The arrests, dubbed “Operation Crosstown Traffic,” involved undercover officers who made 177 purchases of heroin, meth, marijuana, crack cocaine and other drugs from 186 street dealers.

How do we get relevant and salient research in people’s hands?

Marijuana and cognitive abilities

- Effects on the brain
  - Hippocampus
    - Attention, concentration, and memory
  - Research with college students shows impact on these even 24 hours after last use (Pope & Yurgelun-Todd, 1996)
  - After daily use, takes 28 days for impact on attention, concentration, and memory to go away (Pope, et al., 2001)
  - Hanson et al. (2010):
    - Deficits in verbal learning (at 3 days, not 2 weeks or 3 weeks)
    - Deficits in verbal working memory (at 3 days, at 2 weeks, not 3 weeks)
    - Deficits in attention (still present at 3 weeks)
Some considerations around blood alcohol level

Absorption and Oxidation of Alcohol

• Factors affecting absorption
  ◦ What one is drinking
  ◦ Rate of consumption
  ◦ Effervescence
  ◦ Food in stomach

• Factors affecting oxidation
  ◦ Time!
  ◦ We oxidize .016% off of our blood alcohol content per hour

Time to get back to .000%

• .08%?
  ◦ 5 hours
    (.080%....064%....048%....032%....016%....000%)
  ◦ .16%?
    ◦ 10 hours
      (.160%....144%....128%....112%....096%....080%....064%....048%....032%....016%....000%)
  ◦ .24%?
    ◦ 15 hours
      (.240%....224%....208%....192%....176%....160%....144%....128%....112%....096%....080%....064%....048%....032%....016%....000%)
With marijuana, two things happen...

Extension of Stage 4 or "deep" sleep and REM deprivation

Next day, increase in:
- Daytime sleepiness
- Anxiety
- Irritability
- Jumpiness

Next day, feel:
- Fatigue

Sleep impairment documented as persistent effect of marijuana use
NIDA (2012)
Next day, just like with alcohol, increase in:
- Daytime sleepiness
- Anxiety (note that there is a Cannabis Induced Anxiety Disorder)
- Irritability
- Jumpiness

Next day, feel:
- Fatigue
A quick word about screening

An example...

• How many drinks did you have the last time you drank alcohol?

Discussing marijuana...word choice matters

• "Do you smoke marijuana?"
  • A person who uses edibles daily can honestly say “no”
• "Do you use marijuana?" or “have you used marijuana?” followed by, "What does your marijuana use look like?"
(2) Understand applications of classical conditioning to high-risk events related to alcohol and other drug use

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)

CNS Depression (CNS slows down)

Baseline (normal activity)

Desired setting

CNS Stimulation (CNS speeds up)

CNS Depression (CNS slows down)

Baseline (normal activity)

Desired setting

CNS Stimulation (CNS speeds up)

CNS Depression (CNS slows down)

Baseline (normal activity)

Desired setting
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

Consider applications of brief intervention strategies to conversations with young adults

Spectrum of Intervention Response
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
Goals of a Brief Intervention

- Prompt consideration of change
- Prompt commitment to change
- Reduce resistance/defensiveness
- Plant seeds
- Explore behavior change strategies

Brief Interventions and Motivational Interviewing

- Non-judgmental
- Non-confrontational
- Meet people where they are
- Elicit personally relevant reasons to change
- Find the “hook”
- Explore and resolve ambivalence

Delivering a brief intervention

- Web-based personalized feedback intervention
- In-person review of PFI with provider trained in MI
- In-person discussion or conversation (no graphic feedback) with provider trained in MI
### In-person BMI (most with PFI/PNF) 1999-2010

<table>
<thead>
<tr>
<th>Studies/Interventions evidencing reductions in, or a protective effect against, drinking, consequences, and/or alcohol-psychopathology outcomes</th>
<th>Total # of studies/interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/8</td>
<td>10/14</td>
</tr>
</tbody>
</table>
Issues for consideration related to BASICS
Brief Alcohol Screening and Intervention For College Students

• Adjustments in feedback length/content without evaluation
• Best practices in training for BASICS delivery
• Staffing/practical needs leading to adjusting the intervention
• Bringing intervention to scale
• MI adherence & issues of fidelity


individualized College Health for Alcohol and Marijuana Project
(R21DA025833)

Our Findings

<table>
<thead>
<tr>
<th>3 Month Outcomes</th>
<th>6 Month Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td># Days in last 30</td>
<td># Days in last 30</td>
</tr>
<tr>
<td># Joints per week</td>
<td># Joints per week</td>
</tr>
<tr>
<td>Hours high per week</td>
<td>Hours high per week</td>
</tr>
<tr>
<td>Consequences</td>
<td>Consequences</td>
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</table>

At 3 months, intervention group reported 24% fewer joints smoked per week relative to control group.

![Graph showing decrease in joint consumption over time]

At 3 months, intervention participants reported 21% fewer hours high per week relative to control group.

![Graph showing decrease in hours high per week over time]
Four Principles of Motivational Interviewing

- **Express Empathy**
  - Research indicating importance of empathy

- **Develop Discrepancy**
  - Values and goals for future as potent contrast to status quo
  - Person we are talking to must present arguments for change: professional declines expert role

Four Principles of Motivational Interviewing

- **Roll with Resistance**
  - Avoid argumentation
  - Confrontation increases resistance to change
  - Labeling is unnecessary
  - Professional’s role is to reduce resistance, since this is correlated with poorer outcomes
  - If resistance increases, shift to different strategies
  - Objections or minimization do not demand a response
Four Principles of Motivational Interviewing

- Support Self-Efficacy
  - The person we’re working with is responsible for choosing and implementing change
  - Confidence and optimism are predictors of good outcome in both the professional and the individual he or she is working with

Building Blocks for a Foundation

**Strategic goal:**
- **Elicit Self-Motivational Statements**
  - “Change talk”
  - Self motivational statements indicate an individual’s concern or recognition of need for change
  - Types of self-motivational statements are:
    - Problem recognition
    - Concern
    - Intent to Change
    - Optimism
  - Arrange the conversation so that the individual we’re working with makes arguments for change

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?”
What open-ended questions could you ask that might prompt...
...consideration of “consequences”?
...change talk?
...consideration of strategies for making changes?

Finding potential hooks, change talk, and behavior change strategies: An Example

- “What are the good things about __________ use for you?”
- “What are the ‘not-so-good’ things about __________ use?”
- “What would it be like if some of those not-so-good things happened less often?”
- “What might make some of those not-so-good things happen less often?”

OARS:
Building Blocks for a Foundation

- **Affirm**
  - Takes skill to find positives
  - Should be offered only when sincere
  - Has to do with characteristics/strengths
    - “It is important for you to be a good student”
    - “You’re the kind of person that sticks to your word”
Listen Reflectively

Effortful process: Involves Hypothesis Testing

A reflection is our “hypothesis” of what the other person means or is feeling

Reflections are statements

Person: “I’ve got so much to do and I don’t know where to start.”
One of us: “You’ve got a lot on your plate and feel really overwhelmed.”

Person: “Yes, I really wish things weren’t this way” or...
“No, I’m just not really motivated to get things started.”

“Either way, you get more information, and either way you’re receiving feedback about the accuracy of your reflection.” (p. 179, Rollnick, Miller, & Butler, 2008)

OARS: Building Blocks for a Foundation

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OARS: Building Blocks for a Foundation

Summarize

Periodically to...

Demonstrate you are listening
Provide opportunity for shifting

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

**College Student Drinking**
Academic Year 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.

Consider evidence-based strategies with clear implementation.

What do we mean by “evidence-based”?

“Evidence-based practice is the integration of best research evidence with clinical expertise and patient values”

Institute of Medicine, 2001
Different states of evidence for a range of college health issues and behaviors

- Alcohol
- Marijuana
- Other Drugs
- Sexual Assault
- Relationship Violence
- Stalking
- Harassment
- Depression
- Suicide Intervention

Domains that influence evidence-based decision making

Best available research evidence

Environment and organizational context

How do we assess quality of research?

- Reliability of measures
- Validity of measures
- Intervention fidelity
- Missing data and attrition
- Potential confounding variables
- Appropriateness of analysis

Source: SAMHSA's NREPP
How do we build an evidence-based program?

A Road Map to Implementing Evidence-Based Programs

http://www.nrepp.samhsa.gov/courses/Implementations/resources/imp_course.pdf

Five main stages of successful implementation
(Fixen, et al., 2005; NREPP/SAMHSA, 2012)

“The use of effective interventions without implementation strategies is like serum without a syringe; the cure is available, but the delivery system is not.”

Fixen, Blase, Duda, Naoom, & Van Dyke (2010)
Five main stages of successful implementation
(Fixen, et al., 2005; NREPP/SAMHSA, 2012)

• Exploration
  ▫ Identify community’s needs
  ▫ Assess organizational capacity
  ▫ Search program registries
  ▫ Understand program fidelity and program adaptation

Guide to Community Preventive Services
http://www.thecommunityguide.org

What is The Community Guide?
The guide to community preventive services is a free resource to help you choose programs and policies to improve health and prevent disease in your community. Systematic reviews are used to answer these questions:
- Which program and policy interventions have been proven effective?
- Are these effective interventions that are right for my community?
- What might effective interventions cost? What is the likely return on investment?
Learn more about the Community Guide, collaborators involved in its development and dissemination, and methods used to conduct the systematic reviews.

Suicide Prevention Resource Center Best Practices Registry
http://www.sprc.org/bpr
Five main stages of successful implementation
(Fixen, et al., 2005; NREPP/SAMHSA, 2012)

**Installation: Launching your program**
- Establish an implementation team
- Identify and engage an individual or group of individuals to “champion” or promote your chosen program
- Budget for startup costs
- Recognize and address issues regarding readiness

**Initial Implementation: Expect the Unexpected**
- Manage the change process
- Accept abundant coaching

**Full Implementation: The program is in place**
- Maintain and improve service
- Maintain core program components
- Monitor and evaluate fidelity
Five main stages of successful implementation
(Fixen, et al., 2005; NREPP/SAMHSA, 2012)

- Program sustainability
  ▫ Ensure continued funding
  ▫ Ensure fidelity to core components
  ▫ Develop and implement plans for quality improvement
  ▫ Evaluate data systems that support decision making
  ▫ Develop new community partnerships
  ▫ Share positive results to maintain buy-in

“Giving Psychology Away…”

“I can imagine nothing we could do that would be more relevant to human welfare, and nothing that could pose a greater challenge to the next generation of psychologists, than to discover how to best give psychology away…”

— George A. Miller
(from the Presidential Address to the American Psychological Association in Washington, DC, September 1969)

Have a great summer!

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THANK YOU