Environmental Strategies to Address High-Risk Drinking Events

Laura Oster-Aaland, Ph.D.
North Dakota State University
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Overview

• Context of college student drinking
  ⎯ National
• High-Risk drinking events
  ⎯ Identification of events specific to campuses
  ⎯ Deconstruction of events
• Event-specific prevention framework
• Examples
• Campus action plans
Context of college student drinking
National context

Each year...

- **1,825** college students die from alcohol related injuries
- **599,000** college students are injured while under the influence of alcohol
- **696,000** college students are assaulted by another student who has been drinking
- **97,000** college students were victims of alcohol-related sexual assault

State context – youth*

Drunk Driving  Riding w/Drunk  30 day  Binge

National  North Dak.  Illinois

8.2  24.1  38.7  11.7
25.1  26  38.8  21.9
30 day Binge  38.8  37.8  25.6
22.5

*CDC: Youth Online: High School YRBS 9 – 12 grader: 2011

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State context – college students
Number of drinks per week

2010 North Dakota: 4.78 drinks/week
2008 National Reference: 5.2 drinks/week
NDSU males: Avg = 7.35 drinks/week; NDSU females: Avg = 2.77 drinks/week
State context – college students
%
Abstainers past 30 days

2010 North Dakota Data = 29.5%
2008 National Data = 28.3%

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State context – college students
% Binge drinkers past 2 weeks

2010 North Dakota: 48.3%
2008 National Reference: 46.1%

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High-risk drinking events
Definitions of high-risk drinking events

• Drinking “events that are culturally significant or personally meaningful” (Neighbors, et al, 2007)
  – Community events – experienced at the same time by all students
  – Personal events – experienced by individual students and timing is unique to each person or small group of people
Identification and classification of events

• Classify event into dimensions
  – Individual
  – Group
  – Institution
  – Community
  – Society

DeJong and Langford (2002).
Deconstructing the events

• How does the environment contribute to the event?
  – Location
  – Enforcement
  – Noise level
  – Number of people
  – Age of people
  – Closed or open
  – Cost
Why do these events continue?

- Media
- Traditions
- Expectations/Beliefs
- Environmental factors
- Culture
Event-specific prevention*
Approaches to prevention: Individual/Educational

“Students know what they need to know. If given a test on this topic they would score high. But they don’t do what they need to do. What they do is what they see taking place around them, in ads, movies, music videos, accounts of adult behavior . . .”

- Richard Keeling PhD

Presentation in Fargo, 1998
Approaches to prevention: Environmental

“Students receive ‘educational’ messages from a number of sources, and until these messages in the campus and community are changed, college officials face an uphill battle.”

*DeJong, W., Vince-Whitman, C., Colthurst, T., Cretella, M., Gilbreath, M., Rosati, M. & Zweig, K., 1998*
An ecological framework*

**Personal Responsibility**

**Individual factors**
- **Education** – teach students how to be responsible

**Peer factors**
- **Social Norms** – teach students that most students drink moderately

**Environmental Management**

**Institutional factors**
- Campus policy
- Campus Coalitions

**Community factors**
- City enforcement
- City & State Coalitions

**Public Policy**
- State & federal laws

*Center for College Health & Safety, 2004
Eliminating/modifying environmental contributors

- Offer **alcohol-free** social/recreational **options**
- Create environment that supports **health promoting norms/correct misperceptions**
- Limit alcohol **availability** on and off campus
- Restrict **marketing & promotion** of alcohol
- Increase **enforcement** of laws and policies at all levels

*Center for College Health & Safety, 2004*
Areas of strategic intervention*

- Changing knowledge, attitudes, skills, self-efficacy and behavioral intentions
- Eliminating or modifying **environmental** contributors
- Protecting students from negative consequences (health protection)
- Intervening with students who show evidence of problematic drinking

*DeJong and Langford (2002)*
Event risk assessment

- Bring all stakeholders around the table
- Use data to thoroughly understand the consequences
- Seek consensus and understanding
- Empower students to “do the right thing”
- Understand where locus of control lies
- Understand the ecological nature of the problem and potential solutions
Possible courses of action

• Discontinue the event
  – Voluntarily
  – By policy, ordinance, law, sanctions

• Alter the event to reduce the risk
  – Voluntarily
    ➢ Must have the buy in of all stakeholders
    – By policy, ordinance, law
    – By modifying the environment
Possible barriers

• Lack of institutional/community will
• Lack of understanding of risk
  – Lack of data on consequences
• Tradition/culture too strong
• Lack of resources (mostly human)
• Loss of income (but is usually offset by public health and safety costs)
• Other?
Examples
Examples from evidence and experience

- 21st birthday drinking/power hour
- Tailgating policy
- Greek life alcohol policy
- Specific traditions
  - Bison Bash
“You know, we teach about drinking and driving, but we really don’t teach about drinking and dying.”

Jenna Foellmi’s H.S. Principal, 2007

Winona State University Student
21st birthday drinking

• Rutledge, Park & Sher (2008)
  - A longitudinal study over 4 years
  - 2,518 students aged 21
  - 83% of students reported drinking to celebrate on 21st birthday
  - 12% of birthday drinkers reported consuming 21 drinks
  - Half of birthday drinkers exceeded their prior maximum number of drinks.
21st Birthday Drinking

• Brister, Sher & Fromme, 2011
  – Questionnaires and interviews
  – Average # of drinks 10.85
  – Celebrating in bars and birthday-specific traditions associated w/higher eBACs
  – Participants paid for < 5% of their drinks
  – 55% received free drinks
  – Presence of caretaking peers did not protect students against heavy drinking or risks
  – ¼ of participants rode with non-sober friend
21st Birthday Drinking

Number of drinks consumed

Typical and 21st Birthday Drinking Behavior

Typical Week
21st Birthday Week
Typical Weekday
Typical Weekend
(Sunday - Thursday)
(Friday - Saturday)
21st Birthday

21st Birthday Drinking

Estimated BACs

Typical and 21st Birthday eBACs

- Typical Weekday (Sunday - Thursday)
- Typical Weekend (Friday - Saturday)
- 21st Birthday

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21st birthday interventions
Review of birthday card literature

• Neighbors, et al., 2005
  - Harm reduction message, control group
  - Students liked the card, but it had no impact on drinking

• Neighbors, et al., 2006
  - Two different harm reduction cards, one with BAC card and safe drinking tips
  - Cards had no impact on drinking
  - First to document a 21st birthday misperception
21st birthday interventions

Review of birthday card literature

• Smith, et al., 2006
  - 4 cards (control card w/neutral greeting, harm reduction, B.R.A.D., social norms)
  - No effects on drinking or alcohol related problems

• Hembroff, et al., 2007
  - Control group, B.R.A.D., gender-tailored card
  - Students drank less and used more protective behaviors if they received the card, read it, understood it
21st Birthday Interventions

Review of birthday card literature

• Lewis, et al., 2008
  − Control group, personalized normative feedback card
  − No effects on drinking or consequences, however card did reduce normative misperceptions
21st birthday intervention

*Personalized normative feedback*

  - Used PNF to reduce drinking
  - Measured recognition of, observation of alcohol poisoning symptoms
  - Willingness to help others
Intervention

21st Birthday Sample Feedback

According to the information you provided us during the computer assessment, the amount you intend to drink on your 21st birthday (quantity) is 9 drinks.

You completed questions asking you what you believed the average quantity of alcohol consumed by other college students on their 21st birthday. You told us that you believed that the average North Dakota State University student consumed 11 drinks while celebrating their 21st birthday.

The actual drinking norm while celebrating their 21st birthday for college students at North Dakota State University is 6.99 drinks. The 6.99 average was obtained from students attending NDSU during the 2005-2006 academic year.

Your percentile rank (comparing you to other NDSU students) is 68%, which suggests that you intend to drink more than 68% of other college students when celebrating your 21st birthday.

How much the average student actually drank on their 21st birthday

What participants thought other students drank on their 21st birthday

How much the participant intended to drink on their 21st birthday

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Results of PNF intervention

• No main effect of intervention on drinking behavior or related consequences
• PNF may not be enough to change 21st birthday behavior due to environmental factors such as
  – Peer influences
  – Free and low priced drinks
  – Tradition
Conclusions

• Birthday cards alone are not enough to change behavior
• Personalized Normative Feedback alone is not enough to change behavior on 21st birthdays
Possible explanations

- Peer influence
- Cultural influences (*i.e.* parents, movies, TV)
- Tradition (*power hour*, *21 for 21*, *century club*, *pub crawl*)
- Low priced or free drinks
- **Bar closing time** (*i.e.* 12 am – 1 am)
- Developmental issues/perception of immortality
- Lack of understanding of alcohol as a drug and potential for “overdose”
Strategic intervention - 21st Birthday

- Knowledge, attitudes, behavioral intentions
  - Standard drink education
  - BAC education
  - Social norms
  - Alcohol poisoning education
  - Bystander training

- Intervention and treatment
  - Personalized normative feedback

- Environment
  - Power hour campaign
  - Power hour legislation
  - Drink discounting bans
  - Server training
  - Prohibit free shots
  - Alcohol free b-day parties

- Health protection
  - Safe ride program
  - Medical amnesty policy
You can blow out 21 candles...
but we won’t allow you to down 21 drinks.

We do not permit Power Hour or the overconsumption of alcohol.

You’ll thank us later!
Tailgating history at NDSU

• Pre 2004
• Vote of tailgating task force (8 to 9) to allow alcohol in controlled environment
• City ordinance changed
• Post 2004 rules
  – Limit to one specific area with clear borders
  – Increased law enforcement
  – Must be over age 21 unless accompanied by parent
  – Random checking of IDs
  – Tailgating shut down ½ hour after kick off
  – No alcohol sales inside stadium

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Evaluation methods

- Pre and post survey
- Typical alcohol consumption
- Typical attendance at and alcohol consumption at tailgating
- Perceptions of drinking at tailgating
- Football game attendance
- Game attendance based on policy
- Negative consequences due to tailgating

Oster-Aaland and Neighbors (2007)
Results

• No differences in
  – Drinking rates
  – Prevalence of problems

• **Perceptions** of tailgating drinking increased

• Students’ reported intentions to attend more games if alcohol was allowed were higher than their reported actual attendance after the policy

• **Collaboration with athletic department led to Athletic Director as chair of campus coalition**
Strategic intervention - Tailgating

• Knowledge, attitudes, behavioral
  – Alumni education
  – Parent education
  – Student education

• Environment
  – Clear tailgating rules
  – Publicize the facts “not everyone drinks at tailgating!”
  – Offer alcohol free tailgating option
  – Wrist bands for < 21

• Environment (cont.)
  – Strong enforcement
  – End prior to game

• Health protection
  – Availability of safe ride/cab service
  – Bystander training

• Intervention & Treatment
  – Publicize online screening and resources
  – Refer to counseling/brief interventions as sanctions
Greek Life
History

- 7 fraternities, 3 sororities
- Off campus, privately owned houses
- Student organizations sanctioned by student government
- 1999 discussion group formed
- 2000 made recommendations
- 2001 finalized into “Greek Life Initiatives and Action Plan”
Greek Life Initiative and Action Plan

- Regular discussions between student leaders and administrators
- University commitment to provide administrative support for Greek life activities
- Formation of Greek life advisory council
- Minimum GPA requirement of 2.5
- Advisor requirement
- Substance free housing requirement (phased in over 2 years)
Results

- Major reduction in loud party complaints
- Major reduction in police calls
- Better relationships with neighborhood
  – Good Neighbor program
- Increase in GPA for many chapters
- Increase in recruitment for many chapters
Strategic intervention — Greek Life

• Knowledge, attitudes, behavioral intentions
  – Alumni education
  – Parent education
  – Student education
  – Re-commitment to Greek values

• Environment
  – GPA requirements
  – Advisor/House Parents
  – Service requirements
  – Campaigns re: Greek life values

• Environment (cont.)
  – Alcohol bans from common spaces and open parties
  – Good neighbor campaigns
  – Social host ordinances

• Health protection
  – Bystander training
  – Alcohol overdose training

• Intervention & Treatment
  – Publicize online screening and resources
  – Refer to counseling/brief interventions as sanctions
Bison Bash
Bison Bash history

• Private business property adjacent to campus
  – Owned by NDSU graduate
  – Intention to “start a new tradition”
• Advertised on Facebook as “Bison Bash”
  – Unauthorized use of NDSU parking lots
• Beer garden
• Live bands
Concerns

• First day of classes in fall
• Monitoring of beer garden
  – Approval by city w/out university knowledge
• Underage drinking/pre-partying
• Association with University logo/mascot
• Neighborhood issues
  – Parking, noise, etc.
• Lack of control on number of people
• Lack of security/enforcement
Response for fall 2011

- Meeting with President’s Cabinet
- Meeting with city police
- Invitation to remove alcohol from event
- Restriction of parking lots
- Extra security
- Emails to student body (not focusing on event)
- Event drew very small attendance
Strategic intervention – Off campus events

- **Knowledge, attitudes, behavioral intentions**
  - Education w/event sponsor
  - Offer to partner to make event successful

- **Health protection**
  - EMT on stand by?

- **Intervention & Treatment**
  - Intervene with brief interventions through sanctions

- **Environment**
  - Removal of alcohol from event
  - Publicize as alcohol free event
  - Provide prizes/fun environment
  - Enforce any pre-partying
Campus action plans
Questions?

Laura Oster-Aaland, Ph.D.
Director of Orientation and Student Success
Alcohol and Other Drug Abuse Prevention Programs

Laura.Oster-Aaland@ndsu.edu
www.ndsu.edu/alcoholinfo