

Substance Use and Mental Health on College Campuses: Implications for Counseling and Prevention



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College Student Substance Use and Mental Health

Substance Use Data from Monitoring the Future Study

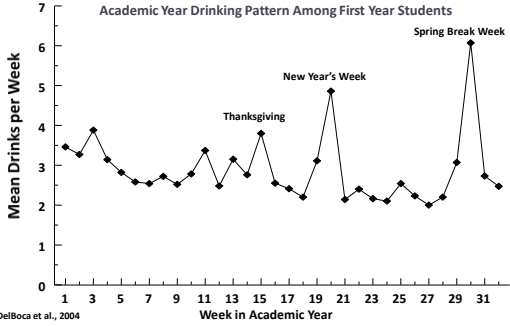
- Alcohol is still the primary drug of choice
 - Past year
 - 79% report any alcohol use
 - 62% report having been drunk
 - Past month
 - 66% report any alcohol use
 - 42% report having been drunk



Source: Johnston, et al (2010)

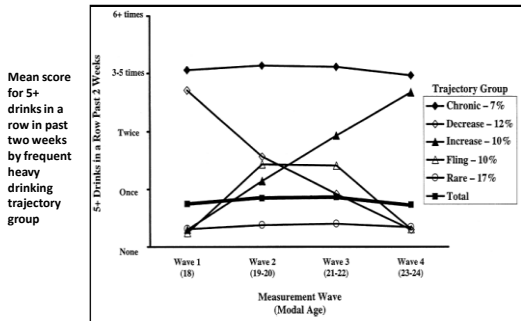
College Student Drinking

Academic Year Drinking Pattern Among First Year Students



DeBocca et al., 2004

Trajectories of "Binge Drinking" During College



Source: Schulenberg & Maggs (2002), *Journal of Studies on Alcohol*

Alcohol-Related Consequences

- Within the past 12 months as a consequence of drinking...
 - 22.3% did something they later regretted
 - 19.0% forgot where they were/what they did
 - 10.8% had unprotected sex
 - 10.7% physically injured themselves



n=34,208 from 57 colleges/universities
American College Health Association, 2010

Alcohol-Related Consequences (continued)

- Within the past 12 months as a consequence of drinking...
 - 2.6% got in trouble with the police
 - 1.8% physically injured another person
 - 1.5% had sex with someone without giving your consent
 - 1.2% seriously considered suicide
 - 0.3% had sex with someone without getting their consent

American College Health Association, 2010

Substance Use Data from Monitoring the Future Study

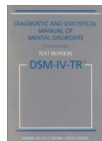
- Any illicit drug
 - 36.0% report past year use
- Marijuana
 - 32.8% report past year use
- Any illicit drug other than marijuana
 - 16.9% report past year use
 - 8.4% Vicodin
 - 7.9% Adderall
 - 7.6% Narcotics other than heroin
 - 7.5% Amphetamines
 - 7.3% OxyContin
 - 5.8% Salvia
 - 5.4% Tranquilizers



Source: Johnston, et al (2010)

Mental Health: Prevalence

- Blanco and colleagues compared NESARC data from college (n=2188) & non-college (n=2904) young adults
- 45.8% of college students met past year prevalence of any Axis I Psychiatric Disorder, Personality Disorder, or Substance Use Disorder
 - 20.4% substance use disorder
 - 17.7% personality disorder
 - 11.9% anxiety disorder
 - 10.6% mood disorder



Source: Blanco, et al. (2008)

Psychiatric Comorbidity

- 17.0% of college students report lifetime depression diagnosis (ACHA, 2010)
 - 20% of women
 - 12% of men
- Diagnosis of depression carries increased risk for co-occurring substance abuse or anxiety disorder (Weissman, et al., 1996)
- Co-occurrence of depression and AOD use increases the risk of suicide (Ross, 2004)



Mental Health Issues and Academics

- Health issues impact academic success
 - 92% of depressed students show signs of academic impairment (Heiligenstein, et al., 1996)
 - 70% of students seeking counseling reported personal problems affected academics (Turner, 2000)



Health and Mental Health

- Factors affecting academic performance:
 - 27.8% Stress
 - 20.0% Sleep difficulties
 - 19.0% Cold/Flu/Sore throat
 - 18.6% Anxiety
 - 13.6% Work
 - 12.6% Internet use/computer games
 - 11.1% Depression
 - 10.4% Concern for a troubled friend/family member



31 unique categories listed, the above were the 8 with prevalence greater than 10%
American College Health Association, 2010

Depression

- 72% of college students who screened positive for major depression felt they needed help
- Only 36% of these received medication or therapy of any kind



Source: Eisenberg, et al., (2007)

Depression

- Factors related to access:
 - Unaware of or unfamiliar with service options
 - Questioned helpfulness of therapy or medication
 - Uncertainty about insurance coverage for mental health visits
 - Less use by students who reported growing up in "poor family"
 - Less use by those identifying as Asian or Pacific Islander

Source: Eisenberg, et al., (2007)

Depression

- Factors related to access:
 - Reasons identified by students:
 - Lack of perceived need
 - Belief that stress is normal
 - Lack of time

Source: Eisenberg, et al., (2007)

Alcohol and Drug Use Disorders

- Past year prevalence:
 - Alcohol abuse: 12.5%
 - Alcohol dependence: 8.1%
 - Any drug abuse: 2.3%
 - Any drug dependence: 5.6%



Wu, et al., (2007)

Alcohol and Drug Use Disorders

- Only 3.9% of full-time college students with an alcohol use disorder received any alcohol services in the past year
- Only 2.4% of those who screen positive and did not receive services perceived a need for services

Wu, et al., (2007)

Brief Interventions

What is Harm Reduction?

- The optimal outcome following a harm reduction intervention *is* abstinence
- 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, skills are described on ways to do so in a less dangerous and less risky way.
- A clinician or program provider must elicit personally relevant reasons for changing.
 - This is done using the Stages of Change model and Motivational Interviewing.

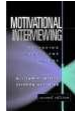
The Stages of Change Model

(Prochaska & DiClemente, 1982, 1984, 1985, 1986)

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

Motivational Interviewing: A Definition

- **Motivational Interviewing is a**
 - **Person-centered**
 - **Directive**
 - **Method of communication**
 - **For enhancing intrinsic motivation to change by exploring and resolving 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 style of the professional
- Getting resistance? Change strategies.

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
 - Student 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 student 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 person he or she is working with

OARS (more on these later today): Building Blocks for a Foundation

- Ask **O**pen-Ended Questions
- **A**ffirm
- Listen **R**eflectively
- **S**ummarize

Building Blocks for a Foundation

Strategic goal:

- Elicit “Self-Motivational Statements” or “Change Talk”
 - Indicates 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 *students* makes arguments for change

Brief Alcohol Screening and Intervention for College Students

A Harm Reduction Approach

Linda A. Dimeff
John S. Baer
Daniel R. Kivlahan
G. Alan Marlatt



“In a world so often focused on ‘treating’ addiction with tough love, Marlatt showed through his work and his life that kindness simply works better...”

Time, March 15, 2011

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)

Detail of Personalized Graphic Feedback 1990 - 1991

Student's Name

Frequency/Quantity during Fall

Peak BAL during Fall

Quantity/ Frequency during High School

Actual Norms

Summary

Personal Feedback for John Student Drinker

Your Drinking Patterns

Frequency: _____
Quantity: _____
Average Blood Alcohol Content: _____

FALL TERM 1991

According to the information you gave us during the Fall term, the average number of occasions you drank (frequency) was 1.4 times a week. The average amount you drank on each occasion (quantity) was 1.4 drinks. Your percentage score comparing you to other college students is 93%.

Your highest peak blood alcohol content (BAL) in the Fall term was .147. Your highest reported BAL in the Fall Assessment was .208.

SPRING SEMESTER IN HIGH SCHOOL

During the Fall semester in high school, your frequency of drinking was 1.4 times a week. The average quantity you consumed per week occasion was 1.4 drinks.

DRINKING NORMS

How safe you feel on questions about what you reported to be the average frequency and quantity of alcohol consumed by other students you met, the total BAL for you, based on the average quantity drunk, is 2 times a week and drinking each occasion, also consumed 1.4 drinks.

Your actual drinking level for each of your ages is below a week, drinking about 1.4 drinks on each occasion.

	FREQUENCY	QUANTITY	PEAK BAL
College	1.4 times	1.4 drinks	0.147
Fall 1991	1.4 times	1.4 drinks	0.147
Spring 1991	1.4 times	1.4 drinks	0.147
Actual Student Norm	2.0 times	1.4 drinks	0.147
Your Reported Norm	1.4 times	1.4 drinks	0.147

Percentile Rating

Highest Peak BAL

Perceived Norms

Detail of Personalized Graphic Feedback 1990 - 1991

Risks

Alcohol-Related Consequences

Family History

Alcohol Dependency

Beliefs about Alcohol and its Effect

Concern about Drinking Habits

Perceived Risk

Lifestyle

Risks

Alcohol-Related Consequences

Family History

Alcohol Dependency

Beliefs about Alcohol and its Effect

Concern about Drinking Habits

Perceived Risk

Alcohol-related Problems (RAPI)

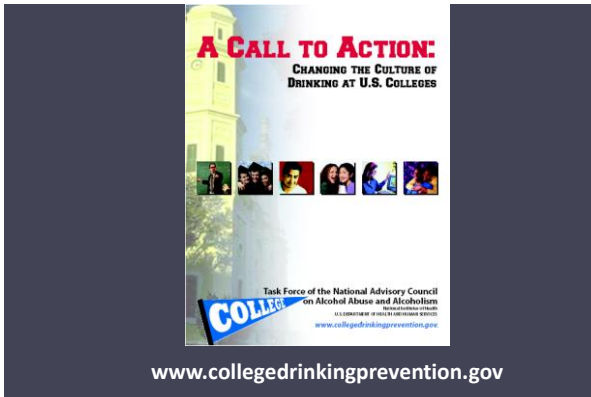
Family History

Alcohol Dependency

Beliefs about Alcohol

Concern about Drinking Habits

Perceived Risk



Tier 1: Evidence of Effectiveness Among College Students

- Combining cognitive-behavioral skills with norms clarification and motivational enhancement interventions.
 - Reductions in drinking rates and associated problems (e.g., ASTP)
- Offering brief motivational enhancement interventions.
 - Reductions in drinking rates and associated problems (e.g., BASICS)
- Challenging alcohol expectancies.
 - Reductions in alcohol use

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

What does this mean?

- Brief interventions can impact student health
- There are empirically supported examples (e.g., BASICS) of personalized feedback driven interventions
- However, brief motivational enhancement interventions can also occur without personalized feedback
- In a counseling center setting, substance use could contribute to, exacerbate, or even cause presenting problems or issues of concern to the student
- The key, then, is eliciting personally relevant reasons to change
- Different "hooks" for the student can be explored

Substance Use Screening/Assessment: Providing Information for Use During Sessions

Screening options

(Larimer, Cronce, Lee, & Kilmer, 2005)

- **Past Year**
 - Young Adult Alcohol Problems Screening Test (YAAPST)
 - 27 items, less than 10 min., with cutoff of 4, reasonable sensitivity (92%) and specificity (57%)
 - College Alcohol Problems Scale-revised (CAPS-r)
 - 8 items, 3 minutes, good reliability and validity
 - Rutgers Alcohol Problem Index (RAPI)
 - 2 versions (23 item & 18 item), less than 10 min., correlated with a range of drinking variables
 - Alcohol Use Disorders Identification Test (AUDIT)
 - 10 items, approx. 2 minutes, cutoff score appropriate for college is debated (ranging from 6-11)

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. flavored 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



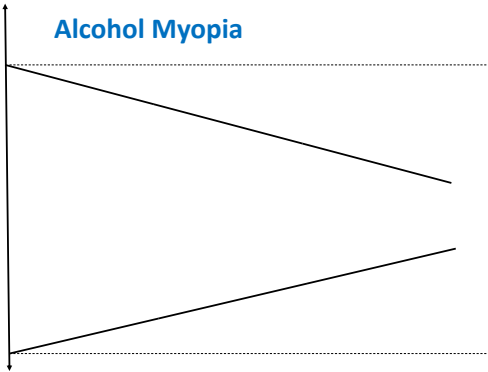
**Some Examples of
Substance Use Information
Related to Discussions:
Finding the “Hook”**

Example:
***Impact on judgment and
decision making***

Blood Alcohol Level

- .02% Relaxed
- .04% Relaxation continues,
Buzz develops
- .06% Cognitive judgment is impaired

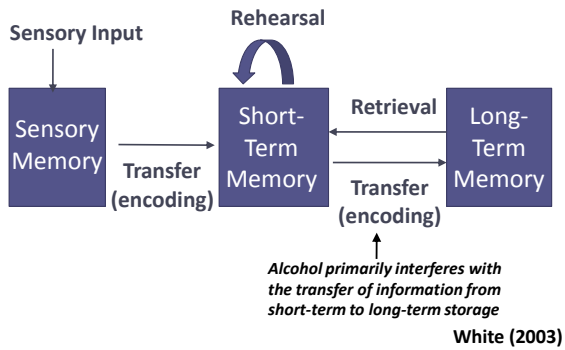
Alcohol Myopia



Example: Blackouts

Blood Alcohol Level (continued)

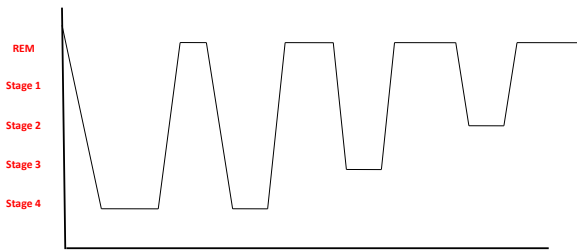
- .08% Nausea can appear, Motor coordination is impaired
- .10% Clear deterioration in cognitive judgment and motor coordination
- .15%-.25% Black outs

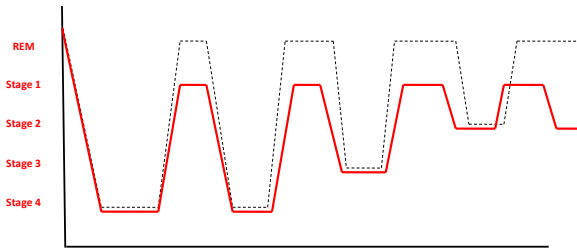


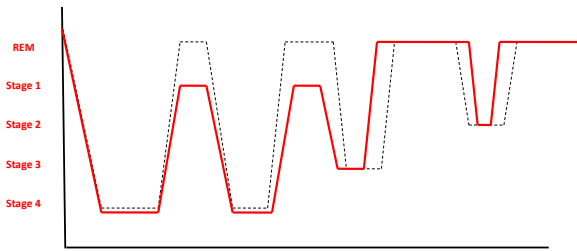
Example:
Impact on sleep

Time to get back to .000%

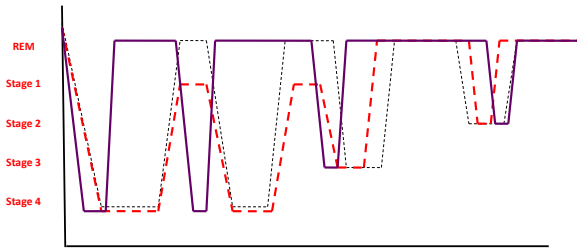
- .08%?
 - 5 hours
(.080%....064%....048%....032%....016%....000%)
- .16%?
 - 10 hours
(.160%....144%....128%....112%....096%....080%...
.064%....048%....032%....016%....000%)
- .24%?
 - 15 hours
(.240%....224%....208%....192%....176%....160%...
.144%....128%....112%....096%....080%....064%...
.048%....032%....016%....000%)



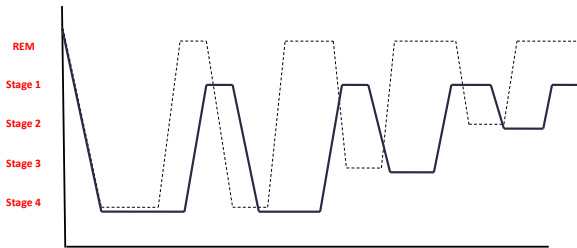


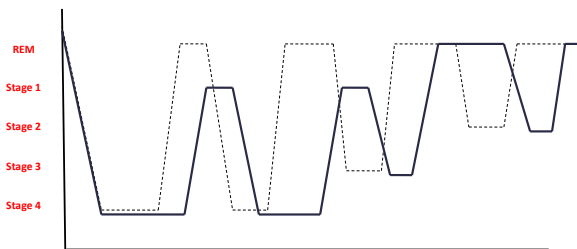


Next day, increase in:
 •Anxiety
 •Irritability
 •Jumpiness



Next day, increase in:
 •Anxiety
 •Irritability
 •Jumpy
 Next day, feel:
 •Fatigue





Example:
Personal safety and sexual assault risks

Factors Affecting Blood Alcohol Level

- **Time**
 - B.A.L. is reduced by .016% every hour
- **Weight**
- **Sex differences**
 - Very pronounced differences between men and women
 - Example

Example of B.A.C. differences between men and women

- **160 pound man**
- **120 pound woman**

- **Both have 5 drinks over 3 hours**

- **What blood alcohol level will they obtain?**

160 pound man

.069% B.A.L.

120 pound woman

.140% B.A.L.

Example:
Tolerance and withdrawal

Tolerance

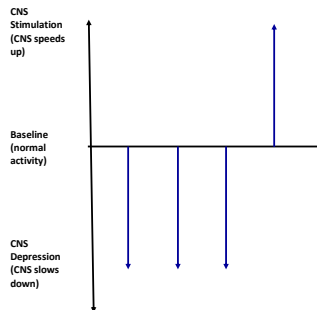
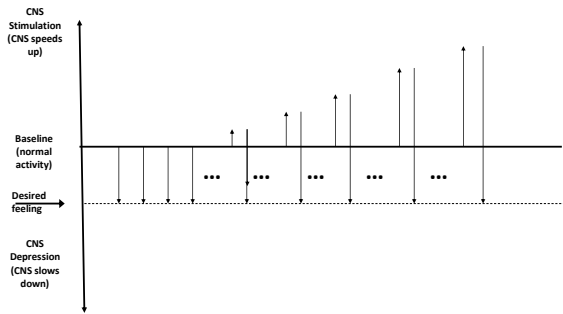
Siegel, S. & Ramos, B.M.C. (2002) Applying laboratory research: Drug anticipation and the treatment of drug addiction. *Experimental and Clinical Psychopharmacology*, 10, 162-183.

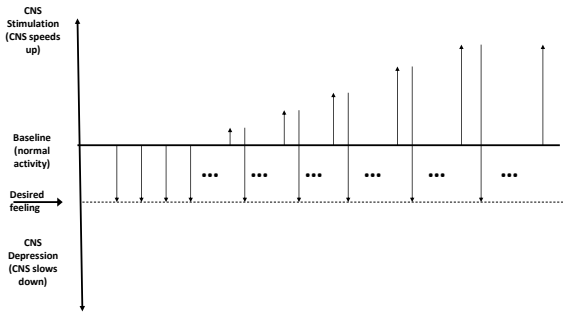
Types of learning

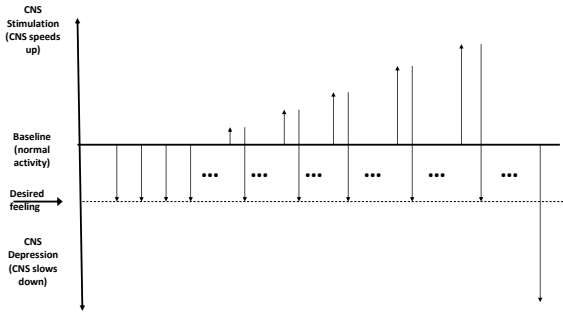
- **Classical Conditioning**

- **Pavlov**

- Association of two events such that one event acquires the ability to elicit responses formerly associated with the other event









	OD	No OD
Same Env.	48%	100%
Novel Env.	52%	0%

Example:
Marijuana and cognitive functioning

along with...

Marijuana and impact on anxiety

A word about research on marijuana's impact on the body relevant to counseling settings...

- **Effects on the brain**
 - Impaired learning, attention, memory
 - Throws off sleep
- **Effects on heart rate and blood pressure**
 - Increases heart rate
 - Raises blood pressure



Recognize other possible "hooks" that could come up in sessions

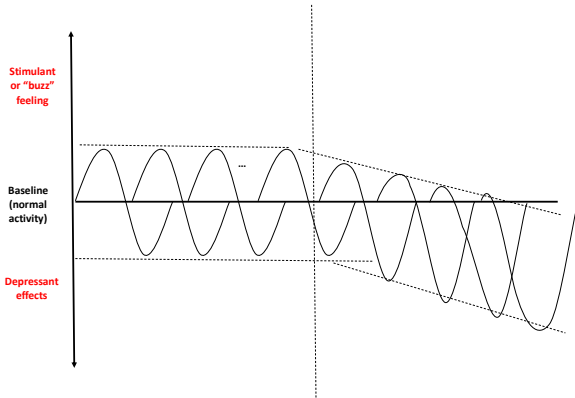
- Academic failure
- Hangovers
- Weight gain
- Impact on relationships
- Finances
- Family History
- Alcohol-related accidents
- Time spent intoxicated
- Legal problems
- Work-related problems

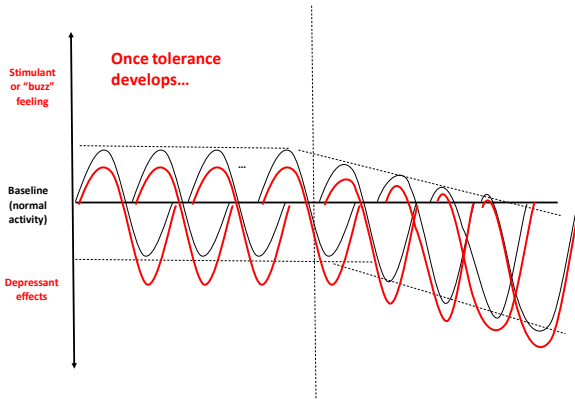


Questions...



- When people start to lose their buzz, what do they usually do?
- Do they ever get that same buzz back?
- For people with tolerance, is the buzz you get now as good as the buzz you used to get when you first started drinking?





Specific Tips for Reducing the Risk of Alcohol Use

- Set limits
- Keep track of how much you drink
- Space your drinks
- Alternate alcoholic drinks w/non-alcoholic drinks
- Drink for quality, not quantity
- Avoid drinking games
- If you choose to drink, drink slowly
- Don't leave your drink unattended
- Don't accept a drink when you don't know what's in it

Blood Alcohol Concentration

As a Function of Drinks Consumed and Time Taken to Consume

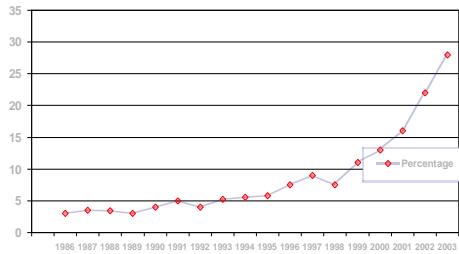
Male 185 lbs.

No. of drinks	Hours											
	0	1	2	3	4	5	6	7	8	9	10	
1	0.020	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
2	0.040	0.024	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
3	0.060	0.044	0.028	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
4	0.080	0.064	0.048	0.032	0.016	0.000	0.000	0.000	0.000	0.000	0.000	
5	0.100	0.084	0.068	0.052	0.036	0.020	0.004	0.000	0.000	0.000	0.000	
6	0.120	0.104	0.088	0.072	0.056	0.400	0.024	0.008	0.000	0.000	0.000	
7	0.140	0.124	0.108	0.092	0.076	0.060	0.044	0.028	0.012	0.000	0.000	
8	0.160	0.144	0.128	0.112	0.096	0.080	0.064	0.048	0.032	0.016	0.000	
9	0.180	0.164	0.148	0.132	0.116	0.100	0.084	0.068	0.052	0.036	0.020	
10	0.200	0.184	0.168	0.152	0.136	0.120	0.104	0.088	0.072	0.056	0.040	
11	0.220	0.204	0.188	0.172	0.156	0.140	0.124	0.108	0.092	0.076	0.060	
12	0.240	0.224	0.208	0.192	0.176	0.160	0.144	0.128	0.112	0.096	0.080	

Implications for Counseling Centers

- Consult when there are medical contraindications

Percentage of all clients prescribed medication (Schwartz, 2006)



** Data for slide estimated from table appearing in Schwartz, 2006 **

Implications for Counseling Centers

- Consult when there are medical contraindications
- Early identification through screening

Early identification of students and coordination of care

- **Routine Screening for depression**
 - Of 103 suicides reported by Counseling Center directors, 19% were current or former center clients (Gallagher, 2009)
 - Example: College Depression Partnership (Klein & Chung, 2008)
 - Screened over 58,000 students in Health Centers using the PHQ-9
 - Identified 801 students (over 35% self-identified as racial/ethnic minority students)
 - Improved clinical outcomes for at-risk, underserved college students by early detection, coordinated proactive follow up, and better adherence to outcomes-based treatment



Early identification of students and coordination of care

- 65% of counseling centers have no relationship with the college health center (Schuchman, 2007)
- Only 32.5% of Health Centers routinely screen for alcohol problems
 - Of these, only 17% use standardized instruments as part of screening (Foote, et al., 2004)



Early identification of students and coordination of care

Alcohol Use Disorders Identification Test (AUDIT)

Item	Response options	Score	Item description	Response options	Score
1. How often do you have a drink containing alcohol?	Never, Monthly or less, 2 to 4, 5 to 7, 8 or more	0, 1, 2, 3, 4	2. How many drinks containing alcohol do you have on a typical day when you drink?	None, 1 to 2, 3 to 4, 5 or more	0, 1, 2, 3, 4
3. How often do you have five or more drinks on one occasion?	Never, Monthly, 2 to 4, 5 or more	0, 1, 2, 3, 4	4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never, Monthly, 2 to 4, 5 or more	0, 1, 2, 3, 4
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never, Monthly, 2 to 4, 5 or more	0, 1, 2, 3, 4	6. How often during the last year have you been unable to do what you normally do because of drinking?	Never, Monthly, 2 to 4, 5 or more	0, 1, 2, 3, 4
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never, Monthly, 2 to 4, 5 or more	0, 1, 2, 3, 4	8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Never, Monthly, 2 to 4, 5 or more	0, 1, 2, 3, 4
9. How many times in the last 12 months have you been injured or involved in an accident as a result of drinking?	0, 1, 2, 3, 4, 5 or more	0, 1, 2, 3, 4, 5	10. Has a doctor or other health worker been concerned about your drinking or suggested you cut down?	No, Yes, Yes a lot	0, 1, 2

- Routine screening for alcohol problems
 - Example: Use of AUDIT and referral to BASICS (Martens, et al., 2007)
- Decreased alcohol use, correction of norm misperception, increased use of protective behaviors

Implications for Counseling Centers

- Consult when there are medical contraindications
- Early identification through screening
- Consider overlap of other co-occurring or risky behaviors with substance use

Factors related to self-injury

- Past year, 14.3% of students (n=5689, 69.6% undergraduate) reported they hurt themselves without the intent of killing themselves
- Among undergrads only, 15.8% reported past year SIB (with 19.1% of these reporting cutting)
- Drug use associated with higher rates of all forms of self-injury
- Highest rate of SIB were grad students who smoked and used illicit drugs (62%)

Source: Serras, et al. (2010)

Factors related to self-injury

- Factors associated with increased odds of SIB:
 - Drug use
 - Cigarette smoking
 - Gambling
 - Depression
 - Sexual orientation
 - Undergraduate student status
- Past two-week binge drinking was not a significant predictor on its own, but frequent binge drinking was
- Authors suggested schools target frequent binge drinking and those using other drugs

Source: Serras, et al. (2010)

Implications for Counseling Centers

- Consult when there are medical contraindications
- Early identification through screening
- Consider overlap of other co-occurring or risky behaviors with substance use
- Role of empirically supported brief interventions
- Consider brief interventions as piece of overall prevention/service puzzle
- Consider role of environmental approaches and/or community partners
- Reduce barriers to implementation and access

Implementing Evidence-Based Approaches

- Continue to research how to bring interventions to scale
- Continue to build bridges between research and practice
- Consider the targets for various prevention and intervention efforts
 - Abstainers
 - First-year students
 - Student-athletes
 - Mandated students
 - Students identified through screening
 - Greeks
 - Study abroad programs
 - Students in recovery
 - Students turning 21
- Have administrative buy-in, support, and understanding of what part these programs play in an institution's strategic plan
- Recognize and utilize expertise within state and region
- Continue to research implementation options using emerging technologies



Thank you!

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 - Estela Santos-Pape



- Thank you for the work you do with college students!

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