Stress, Risk Taking, Alcohol/Drugs, and Parents as Partners
What Every CU Parent Should Know

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Let’s Talk About Me!

• Role
  ▪ Senior Assistant Vice Chancellor for Health and Wellness
  ▪ Director, Wardenburg Health Center

• Training
  ▪ Internist and Psychiatrist

• Family
  ▪ One son graduated from college

• Particular Interests
  ▪ Alcohol and other drug abuse
  ▪ Prescription stimulant abuse
  ▪ Marijuana
  ▪ Sexual assault
  ▪ Intersection between alcohol and sexual behavior among college students
An Ambitious Agenda

- Health and wellness
- College stressors
- Risk taking and setbacks
- Parents as partners
- Alcohol and other drugs
- Take home points
Health and Wellness Team

• Medical
• Psychological
• Psychiatric
• Alcohol and other drugs
  ▪ Harm reduction
• Smoking
• Nutrition
• Sexual assault

• Health is more than simply the absence of illness

  ▪ Help students develop positive life skills and lifestyles
    ✓ Positive coping mechanisms
    ✓ Healthy relationships
    ✓ Recreation/sports
      – Sports medicine
      – Fitness

Be Boulder.

University of Colorado Boulder
Stress at College
Optimal Stress Curve

Maximum Performance

Muscle Analogy:
No use = Atrophy
Overuse = Tear

Performance

Low

Stress (Emotional Arousal)

Low Moderate High
Optimal Stress Curve

- High
  - Good Stress
  - Distress
  - Optimal
  - Reduced Efficiency
  - Reduced Alertness
  - Overload
  - Difficulty Concentrating
    - Indecisive
    - Irritable
    - Anxious, Confused
    - Fatigue
    - Exhaustion
    - Burn-Out

- Low
  - Under-Involvement
  - Boredom
  - Frustration
  - Rust-Out

Performance

Stress (Emotional Arousal)
Stress and College

• Academics
• Finances
• Social environment
• Relationships
  ▪ Friends and Family
• Health
<table>
<thead>
<tr>
<th>Impediments to Academic Functioning</th>
<th>39.6%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep difficulties</td>
<td>27.9%</td>
</tr>
<tr>
<td>Colds/flu/sore throat</td>
<td>27.4%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>26.9%</td>
</tr>
<tr>
<td>Internet use/computer games</td>
<td>17.3%</td>
</tr>
<tr>
<td>Depression</td>
<td>16.3%</td>
</tr>
<tr>
<td>Work</td>
<td>15.7%</td>
</tr>
<tr>
<td>Extracurricular activities</td>
<td>14.1%</td>
</tr>
<tr>
<td>Concern for troubled friend/family member</td>
<td>13.7%</td>
</tr>
<tr>
<td>Stress</td>
<td></td>
</tr>
<tr>
<td>Relationship difficulties</td>
<td>11.7%</td>
</tr>
<tr>
<td>Roommate difficulties</td>
<td>9.0%</td>
</tr>
<tr>
<td>Sinus, ear infection, bronchitis, Strep throat</td>
<td>9.0%</td>
</tr>
<tr>
<td>Finances</td>
<td>8.9%</td>
</tr>
<tr>
<td>Alcohol use</td>
<td>8.0%</td>
</tr>
</tbody>
</table>
### CU Student Overall Stress Level (Past 12 Months)
#### 2013 ACHA NCHA Survey

<table>
<thead>
<tr>
<th>Stress Level</th>
<th>CU Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>No stress</td>
<td>1.6%</td>
</tr>
<tr>
<td>Less than average stress</td>
<td>7.3%</td>
</tr>
<tr>
<td>Average stress</td>
<td>36.9%</td>
</tr>
<tr>
<td>More than average stress</td>
<td>43.2%</td>
</tr>
<tr>
<td>Tremendous stress</td>
<td>11.0%</td>
</tr>
</tbody>
</table>
Risk Taking and Normal Development
Experimentation/Risk Taking

- Natural (and mostly healthy) developmental stage
  - Need to take risks in order to grow
- Frontal part of brain not fully developed
  - Thinking, problem solving, decision making, judgment, impulse control
- Poor decision making
- May lead to overly dangerous risk taking behavior
Taking Risks

- College students should stretch and challenge themselves, experiment, and take risks
  - Developmentally appropriate and healthy when not taken to extremes (e.g., seriously future-foreclosing behavior)
Importance of Setbacks, Disappointments, and Failure

• Failure is inevitable and represents a great learning opportunity
  - Hard to truly grow without setbacks or disappointments
  - Learning how to cope with failure is critical to preparing for life
    ✓ Problem solving skills, poise and grace under fire, stress management, resilience
    ✓ Development of true self-esteem through real competence, achievement, and earned self-confidence
Important Influences on College Students
• The desperate need to fit in
  - Direct peer pressure
  - Indirect peer pressure
    - Perceptions (right or wrong) of what other students are doing
• In adolescents and young adults, shift to increasing influence of peers and friends is normal and healthy, but …

• Parents, for many college students, come in at no less than #2 in terms of influence
Your Changing Relationship with Your Son or Daughter
Your Changing Relationship with Your Son or Daughter

• Your role as parents is still important, but your tactics and tools will likely need to change
  
  ▪ Carrots and sticks
    ✓ Praise and encouragement
      – Pride in your child
    ✓ Anger and disappointment
Communication with Your Son or Daughter

Parent Handbook

• Provides suggestions about how to
  ▪ Initiate and cultivate a real dialogue
  ▪ Deal with communication challenges
  ▪ React effectively to what you hear from your son or daughter
  ▪ Nurture your changing relationship
  ▪ Talk about alcohol and other difficult topics

• Online link: https://aod.colorado.edu/parent-handbook-talking-college-students-about-alcohol
Incoming college freshmen whose parents implemented Parent Handbook interventions had fewer:

- Drinking tendencies
- Drunkenness tendencies
- Binge drinking
- Drinking consequences

• Incoming college freshmen women whose parents implemented Parent Handbook interventions were
  ▪ Less likely to transition from nondrinker to drinker
  ▪ Less growth in drinking over the freshman year

• Evidence suggests that these parent-based interventions are most effective when:
  - Used before beginning college (pre-matriculation)
  - “Boosters” during the first semester focus on high-risk drinking occasions (e.g., football weekends)
Parents Matter!

• When first semester college freshmen spent more than 30 minutes communicating with their parents on Thursdays, Fridays, or Saturdays, they ...
  - Consumed fewer (20% less) drinks
  - Were 32% less likely to engage in heavy drinking
  - Had a reduction in BAC of 0.02%

Source: Small, Morgan, Abar, Maggs: Protective effect of parent-college student communication during the first semester of college. JACH 59(6):547-553, 2011
Parents Matter!

• Direct effect
  ▫ Parents express their concern about excessive drinking or suggest harm reduction strategies

• Indirect effect
  ▫ Parents may remind students of shared family values, internalized norms, or importance of longer-term goals vs. short-term gratification
The DARK Side!!
The Good News

• Many CU students do not drink alcohol, smoke marijuana, or use other drugs; many CU students are not sexually active
  ▪ CU students can be successful, make friends, and have fun without engaging in such behaviors
  ▪ Most important advice to your child: “Be who you are, not who you think others want you to be.”
    ✓ Be authentic and find your authentic micro-culture
  ▪ Will explore the “Dark Side” but also try to be sensitive to different students and different communities at CU
“Do you talk to our sons and daughters about these issues?”

- Yes and no
- Repeatedly
Alcohol and Other Drug Abuse
Incoming Students

• > 90% have experimented with alcohol
• 76% have already been drunk prior to starting college
• 28% have used marijuana

Source: AlcoholEdu 2009 Survey of CU Incoming Freshmen
Alcohol Abuse
Alcohol abuse is the single most dangerous health hazard on campus ... Period!!!
Nothing causes or is associated with more death or physical injury (to self and others), accidents, physical assault, sexual assault, unwanted/unprotected sex, academic failure, impaired relationships, damaged reputations, legal difficulties, property damage, or aggravation of town-gown relations!
Alcohol and Academic Success

• As a general rule, the more a college student drinks, the lower his or her GPA
  - ~25% of college students report academic consequences of their drinking including missing class, falling behind, doing poorly on exams or papers, and receiving lower grades overall

• Important caveat:
  - Correlation does not prove causation!!
    ✓ Drinking in itself does not necessarily cause poor academic performance
    ✓ Other factors may underlie both behaviors
Alcohol and Sexual Assault

- Alcohol—not Rohypnol, GHB, Ketamine, or others—is the number one date rape drug!
- The majority of college men who perpetrate sexual assault and the majority of college women who are sexually assaulted have been drinking and many are intoxicated
  - Excess alcohol consumption increases the risk of sexual assault perpetration and victimization
Alcohol and Sexual Assault

- College men and women need to be aware of the risks of sexual assault associated with alcohol consumption
  - BUT … sexual assault is the responsibility of the perpetrator, not the victim
    - Victims are not “at fault” and must not be blamed for being sexual assaulted
    - If a woman does not give consent, it does not matter where she is, what she is wearing, what she is doing, or whether she has been drinking

Be Boulder.
Abuse of alcohol retards or prevents healthy psychological development

- More adaptive coping mechanisms for stress, social anxiety, and failure
- More appropriate avenues for having fun
CU Drinking Data

• Midway through the fall semester, 35% of first year students report that they do not drink (AlcoholEdu data)

• 2013 Spring Semester NCHA (all students: freshmen through seniors)
  - 17.4% report never drinking
  - 11.7% report drinking but not in last 30 days
Alcohol Use in College: What’s Changed?

• Percentage of college students who drink has **not** changed significantly over the past 50 years

• What has changed:
  - Not just “if,” and “how often,” but …
    - How much
    - For what reason(s)
    - Concomitant consumption of other substances
    - Who
    - Degree of impairment of life activities and tasks
Alcohol Use in College: What’s Changed?

• Extreme drinking
  ▪ Less beer; more hard liquor
    ✓ Get drunk faster
    ✓ Limit weight gain
    ✓ Easier to hide
  ▪ Chugging and shots
  ▪ Pre-gaming or pre-partying
    ✓ Especially before alcohol-free events (e.g., football games or going to bars when underage)
  ▪ Drinking to get “wasted” or “obliterated”
Alcohol Use in College: What’s Changed?

- Alcohol with other substances
  - Blood alcohol concentrations (BAC) required for fatal overdoses are lower when alcohol is combined with prescription drugs
    - Median postmortem BAC for alcohol overdose alone was 0.33%
      - ~10 drinks for a 130 pound woman
      - ~13 drinks for a 180 pound man
    - Median postmortem BAC for combination of alcohol and Rx drug overdose was ~0.15%
      - ~4-5 drinks for a 130 pound woman
      - ~7 drinks for a 180 pound man
Alcohol Use in College: What’s Changed?

• Alcohol with other substances
  ▪ Opioid pain relievers
  ▪ Antianxiety and sleeping medications
  ▪ Stimulant medication and energy drinks
    ✓ Better “high”? 
    ✓ Enable consumption of large amounts of alcohol
Alcohol Use in College: What’s Changed?

- Co-consumption of alcohol and energy drinks
  - Canadian study
    - Drinking sessions without energy drinks: 4.7 drinks
    - Drinking sessions with energy drinks: 8.6 drinks (83% increase)
Alcohol Use in College: What’s Changed?

• Drinking by women

• Percentage of college students who meet DSM criteria for alcohol abuse/dependence
  - ~22% national college student alcohol abuse ≈ 5,500 CU undergrads
  - ~7% national college student alcohol dependence ≈ 1,750 CU undergrads
### National College Student Drinking Data

#### Reported Number of Drinks Consumed Last Time Students “Partied” or Socialized

<table>
<thead>
<tr>
<th>Number of Drinks</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 or fewer</td>
<td></td>
<td>50</td>
<td>44.1</td>
</tr>
<tr>
<td>5-6</td>
<td>15</td>
<td>14</td>
<td>14.2</td>
</tr>
<tr>
<td>7 or more</td>
<td>25</td>
<td>10</td>
<td>15.3</td>
</tr>
</tbody>
</table>

Source: Spring 2013 ACHA NCHA Survey
# National College Student Drinking Data

## Percentage of College Students Who Consumed 5 or More Drinks in a Sitting Within Last 2 Weeks

"Binge Drinking"

<table>
<thead>
<tr>
<th></th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A Do Not Drink</td>
<td>22</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>None</td>
<td>37</td>
<td>50</td>
<td>41</td>
</tr>
<tr>
<td>1-2 Times</td>
<td>25</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>3-6 Times</td>
<td>14</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>7 or More</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total of Last 3 Columns</strong></td>
<td><strong>41</strong></td>
<td><strong>28</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

Source: Spring 2013 ACHA NCHA Survey
• The up side to the “DARK Side”
  □ Over the past 3 years the statistics are generally improving
CU has prevention, intervention, and treatment programs

- Education/prevention
- Harm reduction
- CAPS/PHP
- CUCRC
- Collaboration with:
  - Offices of Student Conduct and Residence Life
  - Boulder City and County
Alcohol Abuse: How Can You Help?

- Talk regularly with your sons and daughters about...
  - Alcohol abuse
  - Expectations, values, and long-term goals
- Encourage them to...
  - Find themselves and be authentic
  - Cultivate true friendships

- Engage in pro-social activities
  - Academics
  - Community service
  - Politics
  - Sports
Marijuana Abuse
The Dope on Dope
A Potpourri of Pot
The World of Weed
Marijuana

• Second most abused substance after alcohol
• Utilization is high in Colorado
  - Amendment 64
    ✓ But note it is illegal for anyone to use in public
  - Medical marijuana
• CU forbids marijuana (even medical marijuana) use on campus, consistent with the federal Drug Free Schools and Communities Act
<table>
<thead>
<tr>
<th>Frequency of Use</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never Used</td>
<td>62.1</td>
</tr>
<tr>
<td>Used, But Not in Last 30 Days</td>
<td>21.1</td>
</tr>
<tr>
<td>Used 1-9 Days</td>
<td>10.4</td>
</tr>
<tr>
<td>Used 10-29 Days</td>
<td>3.7</td>
</tr>
<tr>
<td>Used all 30 Days</td>
<td>2.8</td>
</tr>
<tr>
<td>Any Use Within Last 30 Days</td>
<td>15.7</td>
</tr>
</tbody>
</table>
Marijuana

• How dangerous is marijuana?
  - Overall, it’s less dangerous than alcohol, but …
  - It’s not as benign as most students would like to believe
  - Regular marijuana users are not getting their money’s worth at college
Marijuana: Short-Term Effects

- Distorted perception (e.g., time and space)
- Loss of coordination
- Memory and learning problems
- Trouble with thinking and problem-solving
- Occasional anxiety, fear, distrust, or panic
- Hallucinations and delusions
- Acute psychotic reactions
- Contamination (other drugs, fungi and other microorganisms, paraquat)
Marijuana: Long-Term Effects

- Same respiratory problems as tobacco smokers
  - Cough, lung infections, obstructed airways
- Immune dysfunction
- Sex hormone changes
  - Decreased testosterone leading to testicular shrinkage, loss of interest in sex, erectile dysfunction, loss of muscle mass, breast enlargement
- May increase risk of testicular cancer
- Association shown between chronic use and anxiety, depression, suicidal ideation, and schizophrenia
  - Not clear if marijuana causes, exacerbates, or used to self-medicate
- Possible prenatal effects
Top 10 Endorsed Marijuana Consequences
(National College Students)

- Eating (e.g., too much)
- Sleep problems
- Productivity, apathy, motivation issues, or boredom
- Cognitive abilities, attention, or concentration problems
- Memory problems
- Problems with lungs or coughing
- Feeling antisocial or experiencing social awkwardness
- Other physical difficulties: feeling dizzy, sick, uncoordinated, etc.
- Not getting things done
- Spending too much money

Source: Jason Kilmer, University of Washington
Marijuana: Important Adverse Effects

• Effects on daily life
  - Frequent, heavy, regular, daily use may impair physical and mental health, cognitive abilities, social life, and career status
Marijuana: Effects on Learning

• Adverse impact on learning/memory can last for days or weeks after acute effects wear off
  - Daily marijuana use may result in suboptimal intellectual functioning all of the time
Marijuana: Effects on Driving

• Preponderance of data suggests that marijuana consumption increases the risk of automobile accidents
  ▪ Combination of alcohol and marijuana is even worse
    ✓ Marijuana primarily affects highly automated behaviors (e.g., road tracking control)
    ✓ Alcohol primarily affects more complex driving tasks requiring conscious control
Marijuana: Effects on Mental Health

• Psychosis
  ▪ Individuals with a personal or family history of mental illness appear to be at increased risk for psychosis with marijuana use

• Risk of addiction
  ▪ Withdrawal effects: irritability, sleeplessness, decreased appetite, anxiety, and drug craving
Marijuana: The Bottom Line

• The earlier one initiates use and the more one uses, the greater the risk!
  - Initiation at puberty or early adolescence vs. late adolescence or adulthood – “Later and Less”
  - Occasional use (e.g., once a month or week) vs. chronic, frequent, heavy, daily use
Marijuana: Other Weird Weed Facts

- Marijuana edibles
  - Slower effect onset but may contain very high percentages of THC

- Synthetic marijuana
  - Names: Spice, K2, Summit, fake marijuana, Yucatan Fire, Skunk, Moon Rocks, and others
  - Very potent
  - Undetectable in typical urine drug testing
  - Can lead to severe psychosis and death

- Beware of driving across Colorado state border
Prescription Drug Abuse
The abuse of prescription drugs, including painkillers, stimulants, sedatives, and tranquilizers now exceeds the abuse levels of practically all illicit drugs, with the exception of cannabis.”

- College student hierarchy of substance abuse
  - Alcohol
  - Marijuana
  - Prescription drugs
  - Everything else (including cocaine, ecstasy, heroin, LSD)
Prescription Medications

• Most frequently misused
  ▪ Opioid pain relievers (OxyContin, Vicodin, methadone)
  ▪ Anxiety relievers (Xanax, Ativan, Valium, Klonopin)
  ▪ Psychostimulants (Adderall and Ritalin) for ADHD
    ✓ Among college students, now #1 or #2 most abused
  ▪ Sleep Medications
    ✓ Older: Halcion, Restoril, Dalmane, Pro-Som
    ✓ Newer: Ambien, Sonata, Lunesta
      – Reduced risk of abuse and addiction
Prescription Medications: Sources and Diversion

- Begins with healthcare providers rather than manufacture, theft, online, or street dealer
- Friends/family are the primary proximate sources
- Many students are approached by peers to share, sell, or trade their legitimate Rx medications
  - Diversion of prescription medications is illegal and potentially dangerous
  - Talk to your son or daughter about protecting their legitimate prescriptions
• **Belief that prescription medications are safe:**
  - Approved by the FDA
  - Made in reputable pharmaceutical laboratories
  - Prescribed by healthcare professionals.
Prescription Medications: Risks

• **Similarities between:**
  - OxyContin/Vicodin and heroin
  - Adderall/Ritalin and cocaine
• **Usage alone or in combination with alcohol or other substances**
• **A medication safe for one person may not be safe for another**
  - Underlying medical/psychiatric conditions or pregnancy
  - Unknown use of other medications
## National College Student Prescription Medication Data

<table>
<thead>
<tr>
<th>Prescription Drugs Not Prescribed for Them But Used Within Last 12 Months by College Students</th>
<th>Male %</th>
<th>Female %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antidepressants</td>
<td>3</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Erectile Dysfunction Drugs</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pain Killers</td>
<td>8</td>
<td>7</td>
<td>7.6</td>
</tr>
<tr>
<td>Sedatives</td>
<td>4</td>
<td>4</td>
<td>4.2</td>
</tr>
<tr>
<td>Stimulants</td>
<td>9</td>
<td>7</td>
<td>7.8</td>
</tr>
</tbody>
</table>
CU’s Approach to Alcohol and Other Drugs

• Our approach is harm reduction
  ▪ Education and prevention programs
  ▪ Intervention and treatment
  ▪ CUCRC
  ▪ Student initiatives
  ▪ Campus social and recreational activities
  ▪ AACT: Campus-Community Coalition on AOD Abuse

• Parents are partners in education and prevention
  ▪ Talk to your son or daughter!
  ▫ Often!
  ▫ Parent Handbook

Be Boulder.
Take Home Points
Take Home Points

• College students should and will stretch, experiment, challenge themselves, take risks
• Disappointment and failure are inevitable and, often, great learning experiences
• Encourage your son or daughter to …
  ▪ Find him/herself and be authentic
  ▪ Find the right friends (don’t panic if it takes a while)
  ▪ Engage in prosocial activities
• Parents matter—be appropriately involved

Be Boulder.