Disturbing Trends in Alcohol and Drug Abuse

Alcohol and Drug Abuse Prevention Training
Learning Objectives

After the presentation, participants will be able to:

• Identify 3 contributing factors to underage impaired driving fatalities
• List 3 alcohol consumption techniques used by Texas students
• Discuss at least 2 drug trends used by youth in Texas
• Name 3 of the most commonly abused substances by youth
• Identify 3 commonly used concealment techniques
• Identify 2 items of paraphernalia
Why does TXDOT care about underage drinking?

1. Early alcohol and drug use is an important predictor of developing a substance use disorder later.
   - People who start drinking by the age of 14 are \textit{7 times} more likely to become addicted than those who wait until 21 to start drinking.
   - Someone with an addiction is more likely to drive impaired

2. “Adults” are not the only one who drive while impaired.
DUI in Texas

• In 2016, the youngest DUI driver was:

  13 years old

• Also in 2016…the number of DUI drivers under 21 who killed someone was:

  56

That is more than one per week.
In Texas

- 71.8% of HS Seniors reported having used alcohol.
- 9.2% of HS Seniors admitted to driving after drinking alcohol.
- Over 60% of students (grades 7-12) report that their parents strongly disapprove of underage drinking.
- And yet, the average age of first use in Texas is 12 years old.
Teens and Alcohol

• Why do teens drink alcohol?
  • To feel mature
  • To look cool to friends
  • To test boundaries
  • Self-medication

• Kids under stress are more likely to drink
  • Stress could be from peer pressure, bullying, unstable home life, testing pressures, mental health issues and a whole lot more.
Contributing Factors: DUI MINOR Fatalities

- Lack of driving experience puts young drivers at increased risk.
- Young drivers are less able to scan their environment and detect or recognize imminent hazards.
- Young drivers are less likely to wear safety belts.
- In addition, after they have been drinking or taking drugs, young drivers tend to engage in risky behavior.
  - For example, they are more likely to drive 20+ miles over the speed limit, run red lights, and make illegal turns.
Alcohol and Brain Development
Brain Development in Teenagers

• The brain grows and changes continually in young people and is only about 80 percent developed in adolescents.

• The last section to mature is the frontal lobe, responsible for things such as reasoning, planning, judgment and impulse control!

• Full maturation occurs around 25 years of age.
  • How old do you have to be to rent a car?
  • When do your insurance rates drop?
  • Coincidence?
Brain Development

[Diagram showing brain development from 5 year old to 20 year old with color coding for maturity levels: red/yellow indicating less mature and blue/purple indicating more mature]
Viral Dares: Eye Balling

- Put vodka in a shot glass
- Cover one eye
- Lean forward and place the shot glass around the open eye
- Lean backwards
- Scream, yell, curse
  - It does hurt…. A LOT
  - It will not get you drunk
  - It can cause damage to your cornea
Viral Dares: Tampons

• Soak tampons in vodka
• Insert vaginally or rectally
• Why?
  • Allows alcohol to enter the bloodstream faster (no stomach acid)
  • Breath does not smell like alcohol
• Why not?
  • It hurts!
  • It can cause irritation and damage
  • There is no way for the body to eliminate the excess alcohol
  • No way to know how much was “consumed” (not even for medical staff)
Popular Trends: GUMMY BEARS

- Called “Drunk bears”
- Pour liquor such as vodka over gummy bears in a dish
- Let them sit for a couple of hours or overnight
- Gummy bears will soak up the liquor and expand in size
- May also use gummy worms or red/Swedish fish
- This is dangerous because they don’t know how much alcohol they are ingesting
- The gummy bears can also be eaten at school without the knowledge of the school staff because they don’t look very different from regular gummy bears.
“Drunk Bears”

Dry  4 hrs.  20 hrs.
Popular Trends: Candied Vodka

- Use skittles, jolly ranchers, starburst or peppermints
- Separate the candy by color and put in jars or water bottles
- Pour in vodka and agitate until the skittles are dissolved
- Let the mixture sit for a day or two
- Filter through a coffee filter
- Refrigerate
- Can be concealed by pouring into a Gatorade bottle.
Popular Trends: Vodka Soaked Fruit

• Inject vodka into the with a syringe or soak the fruit with vodka.
• The fruit helps to mask the flavor of the alcohol.
• Also makes it easier to consume on school grounds without detection.
• Popular at outdoor sporting events.
Sizzurp

1. Codeine Cough Syrup
2. Vodka (optional)
3. Jolly Ranchers (optional)
4. Soda
5. Ice
6. Styrofoam Cup

Aka: “Purple Drank, Lean, Syrup”
“Gettin’ Slizz’ard”
Less Popular Trend

• Often 60+% Ethyl (drinking) Alcohol
• A small bottle (2 oz) holds about 1,120 proof shot
• Use salt to separate the gel and the alcohol
• It may smell like hand sanitizer, BUT it will get you drunk!
• Often used by those in situations where it’s hard to get ahold of alcohol, such as clinical or detention facilities
Drinking in Class
Coming Soon...?

- Becomes a flavored alcoholic beverage when mixed with water
- Received approval to be marketed in the US by the Alcohol and Tobacco Tax and Trade Bureau in March of 2015
- Texas introduced legislation to ban the substance but the bill died in session
- The creator is no longer planning to manufacture it for individual sale but is looking to work with airlines and other industries, may sell retail rights.
Marijuana: Basics

Tetrahydrocannabinol (THC) is a mind altering psychologically addictive substance which comes in different forms:

• Marijuana - from the leaves, and flowers of the plant
• Hash - a concentrated form of marijuana made by compressing marijuana resin into small blocks
• Hash Oil aka Concentrates - made by soaking marijuana in solvents such as butane and then evaporating the solvent to obtain a concentrated oil
• Edibles – food/drinks produced or laced with THC; gives a full body high, and can lead to over ingestion due to slow onset of symptoms; comes in many different forms.
Marijuana: Cannabinoids

- Understanding the science/medical aspects of marijuana is increasingly important due to marijuana’s:
  - Growing Popularity
  - Ease of Access
  - Legislative Changes
  - Incomplete/Inaccurate Understanding
Marijuana: Cannabinoids

- Cannabinoids are the most active components of marijuana
- There are 113 identified cannabinoids in marijuana
- These 113 cannabinoids broken down into 13 type classifications
- The two most common types are THC and CBD
  - Tetrahydrocannabinol (THC)
  - Cannabidiol (CBD)
Marijuana: Cannabinoids

- THC (Tetrahydrocannabinol) is 1 of the 13 types
- THC is the primary psychoactive component of marijuana
- THC effects many parts of the brain, specifically the areas that control:
  - Coordination, balance
  - Reaction times, muscle movement
  - Learning, memory
  - Motivation, euphoria
  - Reasoning, judgement
Marijuana: Cannabinoids

- CBD (Cannabidiol) is another primary type of cannabinoid in marijuana
- CBD is not psychoactive like THC and does not make people “stoned”
- CBD also reduces the psychoactive effect of THC
- CBD is the primary medical component of marijuana
- CBD can relieve:
  - Pain
  - Seizures (*Marinol, a CBD oil, is legal in Texas for epilepsy patients only*)
  - Anxiety
Marijuana: Cannabinoids

Cannabinoid receptors are natural and are found in very high levels in several regions of the brain, as shown in the image on the right.
Marijuana: Cannabinoids

Cannabinoid receptors not just in the brain, they are located all over the body, including:

• The Brain
• The Spinal Cord
• Various Organs
• Immune System
• The Skin
Marijuana: Cannabinoids

• Studies have shown a 1:1 ratio of THC to CBD seems to produce the best medical effects/results
• Turning leaf marijuana into concentrates (oil, budder, shatter) can effect the ratio of THC and CBD
• Marijuana concentrates tend to be very high in THC and low in CBD
• This means that people get more of the psychostimulant effects (like paranoia) without the anti-anxiety balancing effect of the CBDs when using marijuana concentrates.
• Concentrates likely have less medical benefits
Marijuana Concentrates
MARIJUANA: CONCENTRATES
Marijuana: CONCENTRATES

• Marijuana Concentrates are increasing in popularity
• Duration of effects are 2-3 hours, but can have residual effects up to 24 hours
• Can contain up to 90+% pure THC (compared to 15% street level weed and 30% dispensary weed)
• More hallucinogenic than traditional marijuana
• The process of making concentrates is highly dangerous
Cannabis Effects

- Tremors (Body and/or Eyelid)
- Relaxed inhibitions
- Impaired perception of time and distance
- Disorientation
- Sleepiness
- Debris in mouth
  - If smoked in cigarette form

In higher doses:
- Increased heart rate
- Paranoia
- Hallucinations
- Panic attacks
- Psychosis
Medication – Psychostimulants

- Psychostimulants, mainly consist of amphetamines (Dexedrine) and methylphenidates (Ritalin).
- Although stimulants, these drugs often have a calming and focusing effect for children and those with a hyperactivity disorder.
- Those without a hyperactivity disorder use these drugs for the stimulant effect.
- In general, these drugs increase the amount of circulating brain chemicals that speed up bodily functions like heart rate and breathing.
- Duration of effects is usually 4-8 hours
Psychostimulants: Effects

- Body Tremors
- Restlessness
- Talkativeness
- Exaggerated reflexes
- Anxiety
- Irritability
- Grinding teeth
- Dry Mouth
- Cardiac irregularities

- Loss of appetite
- Convulsions
- Seizures
Medication: Anti-Anxiety

• Anti-anxiety drugs, also known as tranquilizers, are medications that relieve anxiety by slowing down the central nervous system. Their relaxing and calming effects have made them very popular.
  • Examples:
    • Xanax (“Xannies”, “Handle Bars”)
    • Valium
    • Ativan
Medication: Opioids

Opioids are medications that relieve pain. They reduce the intensity of pain signals reaching the brain and affect those brain areas controlling emotion, which diminishes the effects of a painful stimulus.

Examples:
- Hydrocodone (e.g., Vicodin)
- Oxycodone (e.g., OxyContin, Percocet)
- Morphine (e.g., Kadian, Avinza)
- Codeine
Anti-Anxiety

What you might see:
- Uncoordinated and/or fumbling
- Disoriented
- Sluggish
- Thick, slurred speech
- Sleepy
- Droopy eyelids
- Looks like alcohol impairment

Opioids

What you might see:
- Low, raspy slow speech
- Dry mouth
- Euphoria
- Sensory distortion
- Droopy eyelids
- Drowsy
- Constricted pupils
- Itching
Medication: Over-the-Counter

Over-the-counter (OTC) drugs are those you can buy without a prescription. Some OTC medicines relieve pain, while others help manage problems, like allergies.

Examples:

- Dextromethorphan (DXM)
  Brands: Robitussin, Coricidin
- Sleeping Pills/Allergy Medication
  Brands: Sominex, Benadryl
- Doxylamine
  Brands: Unisom, Nyquil
- Pseudoephedrine
  Brands: Zyrtec D, Claritin D

What you might see*:

- Drowsiness
- Symptoms similar to alcohol impairment
- Sensory distortion
- May have mild hallucinations
- Talkativeness
- Symptoms similar to psychostimulants

*Effects are dependent on drug taken.
Pharming Parties (AKA: Skittles, Trail Mix, Chex Mix)

During these parties, students take whatever drugs and medications that they can at home and combine them in a bag or bowl. They take handfuls at one time without knowing exactly what they are taking and what interactions the drugs may have when mixed together.
Synergistic Effect

• A biologic response to multiple substances where one substance worsens the effect of another substance.
• The combined effect of the substances acting together is greater than the sum of the effects of the substances acting by themselves.
• This is a common concern involving college age students that frequently mix alcohol with substances or various substances together.
• Poly drug use is very popular as youth mix “uppers” and “downers” in order to maintain a consistent high.
• Happens during “Pharming Parties”
Synthetic Drugs

• Drugs that are intended to mimic the effects of marijuana, cocaine or LSD.
• In many cases, the effects might be stronger and more unpredictable.
• Examples:
  • K2 or Spice aka “fake weed”
  • Bath Salts aka “fake cocaine”
  • N-Bomb aka “fake LSD”
• DEA has banned the chemicals used in these products.
Inhalants

Inhalant use refers to the intentional breathing of gas or vapors with the purpose of reaching a high. Inhalants are legal, everyday products which have a useful purpose, but can be misused.

Methods of Ingestion:
- Sniffing through the nose
- “Huffing”-inhaling fumes through the open mouth
- “Bagging”-spraying the substance into a bag and placing the bag over their head
- “Dusting”-inhaling compressed air from sprays used for cleaning computer keyboards.
Inhalants

Examples:
• Nitrous Oxide (aka: laughing gas, whippets)
• Dust Off
• Cooking Spray
• Spray Paint
• Glue

What you might see:
- Dizziness, dreaminess and fits of giggles
- May cause hallucinations
- Constricted pupils
- Possible nausea
- Disorientation
- Lack of muscle control
- Bloodshot watery eyes
- Flushed face
- May leave a rash around the mouth
MDMA (aka: Ecstasy, E, X, Molly)

- Psychoactive drug similar to methamphetamine and mescaline.
- Effects the neurons in the brain that use serotonin,
- Causes excessive release of serotonin.
- This produces an energizing effect and feelings of euphoria, emotional warmth, distortions in time perception, and increases tactile senses.
- This drug is not as likely to be used on campus, but you may find it being sold, or you may hear students talking about it

Side effects can include confusion, depression, insomnia, drug craving and severe anxiety.
Concealment

• We have already covered some concealment techniques for alcohol, such as Gatorade bottles, Styrofoam cups, but when it comes to drugs there are many ways to conceal.

• Students may use diversion safes that look like regular household items.
  • These items can be purchased at head shops or from online retailers such as Amazon.
  • Additionally, students may make their own stash items.
Concealment: Diversion Safes
Concealment: Diversion Safes
CONCEALMENT: DIVERSION SAFES
Concealment: Shoes
Concealment: Clothing
Paraphernalia
Paraphernalia: SHIRTS
Paraphernalia: DTSAB
Paraphernalia: Logos

1. Not “Rasta” Colors!
2. No leaves or tye-dye!
3. No “drug” markings!
4. Just Colorado, Donuts, and a Spout
Paraphernalia: GRASSROOTS
Paraphernalia: No Bad Ideas
Paraphernalia:
CHEMICAL BABY
CLOTHING
DRUG CULTURE
Music Festivals
MUSIC FESTIVALS

Music Festivals are very popular all over the world. They are usually open-air events with multiple bands playing over the course of 2+ days with tens of thousands of attendees. Anytime you get that many people together, you will certainly have some who choose to use drugs.

Popular US Music Festivals:
- Bonnaroo
- Firefly
- Coachella
- Lollapalooza

Popular Texas Music Festivals:
- Austin City Limits
- Chili Fest
- Fun Fun Fun Fest
- Kerrville Folk Festival
MUSIC FESTIVALS: EDM

• In addition to well known music festivals, like ACL, EDM (electronic dance music) events are also very popular.

• EDM music events often mimic raves, but they are not the same thing.

• In any given month, there can be 10-30 EDM events in Texas.

• EDM events can also be a hot-bed of drug activity.
Music Festivals

Most common Music Festival/Rave drugs:

- Alcohol
- Marijuana
- Ketamine
- Ecstasy
- LSD
- Poppers (Amyl Nitrates)
Symbology

• Even those who may not do drugs may choose to (knowingly or unknowingly) participate in drug culture.

• Older Example: Tie-dyed shirts. While there is nothing about a tie-dyed shirt that explicitly means someone does drugs, during the 1960’s the pattern became synonymous with the “peace and love” movement, which was often fueled by marijuana and LSD.

• Modern Example: Kandi. Kandi started in the 1990s as a way for people at a rave to identify a drug dealer in the dark. Since then, it has grown in popularity and now many people at music festivals wear Kandi, even those who do not use or sell drugs.
SYMBOLS: "KANDI"
Symbology

• 420: The universal time to smoke pot
  • After school let out, but before parents got home from work
• 710: The symbol for marijuana concentrates
  • It is the word “OIL” upside down
• Jamaican Flag Colors: Rastafarianism allows smoking marijuana and originated in Jamaica, so the colors of the Jamaican flag have been adopted by advocates
Terminology

- Dab, Errl: Refers to marijuana concentrates
- Oil: Can mean heroin or marijuana concentrates
- Dank: High quality marijuana
- Oil Rig: A bong for marijuana concentrates
Terminology

• “Sesh”: a drug “session
  Example: “Sesh time.”

• “Dank”: means high-quality, good, & sometimes strong

• “Kush”: a strain of marijuana, but some use it for marijuana in general
  Example: “I had some dank kush last night.”

• “40 to 5”: time to smoke
  Example: “What time is it? It’s 40 to 5.”
TERMINOLOGY

- Molly – A type of Ecstasy/MDMA
- Usually found in powder form
- Usually not pure MDMA
- Some people also call Molly/MDMA/Ecstasy the “Love Drug”
- Rollin’ – Being high on Molly, though some use it for all MDMA/Ecstasy
Resources

Erowid has a lot of good information on various psychoactive plants and drugs

https://www.erowid.org/

Drugs.com has a lot of excellent information on prescription and over-the-counter drugs, including a pill identifier and an interactions checker.

https://www.drugs.com
Conclusions

1. We must look beyond underage drinking, and look at the larger issue of substance abuse.

2. Methods of ingestion used by youth may be far different from those of adults, particularly regarding alcohol.

3. Current trends may be very different from when you were in middle school, high school, and college.

4. New substances and methods of abuse are emerging regularly, which makes recognition of drugs and their effects a considerable challenge.
Do schools really have to worry about this?
Thank You For Attending!

If you have any questions, or wish to obtain more information regarding alcohol and drug abuse trends, laws, or prevention, please contact the FRIDAY program at:

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