Children's beliefs about alcohol begin to form by the 3rd or 4th grade. Though most beliefs about drinking start out being negative, alcohol advertising & social media work hard to coax kids into becoming heavy drinkers. It's the thinking, not the drinking.

KEY FACT: Dr. DeBenedittis estimates that 90% of all the good things people say happen when they drink are mental effects. They're not caused by alcohol.

HBO Series: Addiction
“The Science of Relapse”

- The ALC is not about the treatment effect of drugs that interrupt established neural networks - but is instead a tool designed to preempt having those networks built in the first place.

- Remember how William described being triggered by his environment. Environmental cues are at the heart of the ALC.

ALCOHOL EXPECTANCIES ARE YOUR MENTAL BELIEFS ABOUT THE EFFECTS OF ALCOHOL.
You can find out what your alcohol expectancies are by answering this question:

How do you think a person feels after a few drinks?

Please write down at least two answers to this question in your notes.
PHYSICAL VS. MENTAL EFFECTS

PHYSICAL EFFECTS:
Direct pharmacological or biological effects of a drug

MENTAL EFFECTS:
Effects people associate with a drug, whether or not the drug actually causes this effect

PHYSICAL EFFECTS OF ALCOHOL

Please write the 4 physical effects of alcohol in your notes:

The physical effect drinkers call “good” is:
- Buzz: but the buzz only happens at very low doses
  - After 1-2 drinks (depending on your sex & body weight) the buzz effect diminishes.
  - Drinking more than this will make a person feel worse than before starting to drink.

The physical effects drinkers call “bad” are:
- Depressant: sleepy, tired, memory loss, passing out
- Neurological Breakdowns: loss of motor skills, judgment, control
- Poison: upset stomach, vomiting, death

WHAT MENTAL EFFECTS DO YOU ASSOCIATE WITH DRINKING ALCOHOL?

REMEMBER
Pavlov trained dogs to automatically salivate at the sound of a bell after pairing food and a bell only 23 times.

Teens are exposed to a half million alcohol ads & social media posts.

Please put a circle around any of your answers that are MENTAL effects of drinking.

The physical effects of drinking are only:
- Buzz
- Depressant
- Neuro – Breakdowns
- Poison

(Circle any beliefs you listed that are not directly caused by these.)
THE MENTAL EFFECTS ASSOCIATED WITH DRINKING ALCOHOL ARE CAUSED BY THE PLACEBO EFFECT.

It's the thinking, not the drinking!

Alcohol Expectancies
Exist Before a Person Begins Drinking
Predict How Old a Person Begins Drinking & How Much that Person Will Drink
Like Handle Bars on a Bicycle, Alcohol Expectancies & Drinking Behavior Move Together
Changes in Expectancies are Similar to Conversion Experiences, as Alcohol Expectancies Mitigate the Influence of Family History, Drinking History & Belief in the Negative Consequences of Drinking

Sensory Transmission Model of Experience
Sensory Mastery Model of Experience

In Honor of Protagoras
“Man is the Master of Experience”

Physically, your eyes have a blind spot.

It’s the thinking, not the drinking.

Your Miraculous Brain

No Difference

Imagination

Inputs Four Billion Bits of Information each Second

PBS: The Brain Fitness Program
Neurons that Fire Together Wire Together

It’s the thinking, not the drinking.
Influences on Beliefs: Traditional Sociology

Influences on Beliefs: Media Scholars

Influences on Beliefs:

You

Family

Church

School

Media

Influences on Beliefs:

You

Family

Church

School

Media

PBS: The Brain Fitness Program
What We’re Bombarded By Becomes Our Reality

Alcohol Advertising & Social Media

It's the thinking, not the drinking
ALCOHOL BELIEF NETWORK
How Our Brains Organize the Mental Effects Associated with Drinking

AROUSAL
Hyper
Cool
Talkative
Active
Carefree
Funny
Friendly

SEDATION
Less Nervous
Outgoing
Sexy
Relaxed
Sad
Quiet

POSITIVENEGATIVE
Crazy
Forgetful
Dizzy
Sick
Loud
Sleepy

Cool
Talkative
Active
Carefree
Funny
Friendly

Find the word in the network closest in meaning to your first answer to how you think a person feels after a few drinks. Write down the words nearest to it.

Brain Science Rule #1
Neurons that Fire Together, Wire Together
When two things happen at the same time, your brain makes one thing out of it.

It’s the thinking, not the drinking
You now know the Alcohol Belief Network established in your brain. Remember that belief networks are like plastic. Even though they've already been molded, you can reshape your beliefs with just a little bit of practice wiring together a new neural network.

Congratulations! You've learned that alcohol's effects on your body are just the beginning of the story. It's the thinking, not the drinking. The part of your brain in use determines your behavior, and it overrides other beliefs, knowledge, and decisions.

"My friends & I know bad stuff happens when we drink. But we still drink anyway. Why?" - question from a high school student
Research Validating Expectancy Challenges as a Prevention Strategy

According to the US Government, 43% of adults have not had a drink of alcohol in the last 30 days, and most of the adults who did, drank only 2 drinks a week or less!

ALCOHOL BELIEF NETWORK
HOW OUR BRAINS ORGANIZE THE MENTAL EFFECTS ASSOCIATED WITH DRINKING

<table>
<thead>
<tr>
<th>POSITIVE</th>
<th>NEGATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOUD</td>
<td>SLEEPY</td>
</tr>
<tr>
<td>SICK</td>
<td>DIZZY</td>
</tr>
<tr>
<td>STUPID</td>
<td>CRAZY</td>
</tr>
<tr>
<td>FORGETFUL</td>
<td></td>
</tr>
<tr>
<td>SLOW</td>
<td>SCARED</td>
</tr>
<tr>
<td>SCARED</td>
<td>COOL</td>
</tr>
<tr>
<td>TALKATIVE</td>
<td>CAREFREE</td>
</tr>
<tr>
<td>FUNNY</td>
<td>FUN</td>
</tr>
<tr>
<td>FRIENDLY</td>
<td>SMART</td>
</tr>
<tr>
<td>QUIET</td>
<td>SAD</td>
</tr>
</tbody>
</table>

ALCOHOL EXPECTANCE NETWORK
According to the US Government, 43% of adults have not had a drink of alcohol in the last 30 days, and most of the adults who did, drank only 2 drinks a week or less!

Research Validating Expectancy Challenges as a Prevention Strategy

Alcohol Expectancies appear in children before they begin drinking (Goldman & Dunn 1998)
Change in a direction that encourages drinking when approaching adolescence (Goldman & Dunn 2000)
Predicts drinking prospectively for as much as nine years (Newcomb 1988, Stacy 1991)
When measured with treatment predicts post treatment outcomes (Conners 1993)
Expectancy changes parallel changes in drinking behavior (Sher 1996)
Expectancy manipulation results in increase or decrease in drinking (Darkes & Goldman 1993 & 98, Dunn 2000, Stein 2000)
Expectancies rather than chemical effects appear responsible for some behavior changes when drinking (Martin & Sayette 1993)

Classroom Based Interventions

Reduced Positive Expectancies for 4th Graders (Cruz & Dunn 2003)
Reduced Drinking and Positive Expectancies for High School students (Cruz 2005 & Sivasithamparam 2011)
Reduced drinking for College students (Sivasithamparam, Hall & Dunn 2008 & Schreiner, Fried, Sivasithamparam & Dunn 2009)
Also found effective in large classroom lectures given in only 30 minutes (Fried, Sivasithamparam, Schreiner, Boucher, Dunn & Hall 2010)

Reviewed in June 2012

• 3.3 Quality of Research (out of 4 points)
• 3.5 Readiness for Dissemination

Outcomes

• Reduction in expectancies of positive social and arousing effects of alcohol.
• Increase in expectancies of negative sedating and antisocial effects of alcohol
• Reduced instances of drinking
• Reduced amounts consumed when drinking
• Lower overall .BAC levels when drinking
• Fewer instances of binge drinking

NREPP Reviewed

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NREPP Re-Reviewed in 2017

This program is effective for reducing alcohol use and disorders. The review of the program yielded strong evidence of a favorable effect. Based on two studies and 11 measures, the average effect size for alcohol use and disorders is .45 (95% CI: .36, .54).

This program is effective for improving knowledge, attitudes, and beliefs about substance use. The review of the program yielded strong evidence of a favorable effect. Based on two studies and 11 measures, the average effect size for knowledge, attitudes, and beliefs about substance use is .26 (95% CI: .17, .35).
Research as a Classroom Based Intervention

• Lowering Risk for Early Alcohol Use by Challenging Alcohol Expectancies in Elementary School Children (2003).
• Reducing Alcohol Consumption Among High School Students By Challenging Alcohol Expectancies (2006).
• Evaluation of an Expectancy Challenge Curriculum in Reducing High-Risk Alcohol Use Among College Students When Modified for Large Class Sizes (2010).
• Evaluation Of The Expectancy Challenge Alcohol Literacy Curriculum (ECALC) For Reducing Alcohol Use Among High School Students.
• The Expectancy Challenge Alcohol Literacy Curriculum (ECALC): A Single Session Group Intervention to Reduce Alcohol Use (2012).
• Evaluation Of Digitally Enhanced Expectancy Challenge Alcohol Literacy Curriculum (ECALC) For Use With Mandated College Students (2013).
• Evaluation Of The Expectancy Challenge Alcohol Literacy Curriculum (ECALC) For High School Students (2016).
• Reducing Alcohol Use in Mandated College Students: A Comparison of a Brief Motivational Intervention (BMI) and the Expectancy Challenge Alcohol Literacy Curriculum (ECALC) (2019)

CANNABIS EXPECTANCES EXIST

• Personal expectancies about the effects of cannabis have been shown to affect cannabis use (e.g., Linkovich-Kyle & Dunn, 2001).
• The most frequently endorsed explicit cannabis expectancies include enjoyment, fun, experimentation, social enhancement, boredom, relaxation, and coping with stress and anxiety (Bonn-Miller et al., 2007; Hathaway, 2003; Lee, Neighbors, & Woods, 2007).
• Among adults and adolescents, positive expectancies have been found to be a direct and significant predictor of cannabis use (see Alfonso & Dunn, 2007; Connor et al., 2014; Connor et al., 2011).

IMPLICIT VS. EXPLICIT EXPECTANCES

Implicit expectancies are less deliberative when thought about (Subconscious—taken for granted).

Explicit expectancies are those people report when they contemplate their expectancies for a particular drug (Deliberate—thought about).

Theorists believe that if you can change an expectancy at the implicit level, you’ll fundamentally change how someone understands and interacts with a particular drug.

CAN CANNABIS EXPECTANCES BE CHALLENGED?

• Heavier users of cannabis were found to have stronger implicit positive-arousal associations but weaker implicit negative associations toward cannabis compared to controls (Beraha et al., 2013).
• These findings are almost identical to those focused on alcohol expectancies (Dunn & Goldman, 1996, 1998, 2000).
CAN CANNABIS EXPECTANCIES BE CHALLENGED?

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TIPS FOR PARENTS & TEACHERS

#1 KNOW WHAT IS A STANDARD DRINK

12 fl oz of regular beer = 8 oz of rock & rye (about 1 oz of alcohol)
7 oz of table wine = 1.5 oz of 80-proof distilled spirits (light rum, tequila, vodka, etc.)

About 1 oz of alcohol...

TIPS FOR PARENTS & TEACHERS

#2 LEARN YOU FEEL BEST WHEN YOU DRINK LESS

When a buzz starts to fade, the brain tricks a person into thinking they need to drink more to get their buzz back.

TOTAL NUMBER OF DRINKS PER NIGHT

<table>
<thead>
<tr>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100 lbs • 1 Drink</td>
<td>140-160 lbs • 2 Drinks</td>
</tr>
<tr>
<td>180-200 lbs • 2 Drinks</td>
<td>200-240 lbs • 3 Drinks</td>
</tr>
</tbody>
</table>

TIPS FOR PARENTS & TEACHERS

#3 LEARN DOSAGE

<table>
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</table>
To Encourage Children to Drink, Alcohol Companies Bombard Kids with Messages to:

- Steal alcohol when adults aren’t looking
- Hide out when you’re drinking

This ad tells children that growing up means breaking through barriers keeping them from drinking with their friends.

The Alcohol Industry Actively Works to Undermine Parents

Early on, it’s true that parents are the most important influence over their children’s drinking, but the influence of alcohol marketing over-rides parental values as children grow older.

Maybe that’s why the industry spends billions targeting teens?

The US Department of Health Says the Exact Opposite

The Bottom Line: A STRONG PARENT-CHILD RELATIONSHIP

- Establish open, honest communication. Make it easy for your teen to talk honestly with you. (See list “Tips for Talking With Your Teen.”)
- Share your views. Even though your teen may not always share them, they still need to know that you and other adults share values. Make it a point to talk about your values in a calm, relaxed setting. Always respect your teen’s views in the discussion.
- Draw the line. Set clear, realistic expectations for your child’s behavior. Establish appropriate consequences for breaking rules and consistently enforce them.
- Offer acceptance. Never say your teen knows that you appreciate his or her efforts as well as accomplishments. Most hurtful comments are:
- Understand that your child is growing up. This doesn’t mean in a transfer of authority, but that you guide your child’s behavior, also makes an effort to respect his or her growing need for independence and privacy.
TIPS FOR PARENTS & TEACHERS
#4 Talk Back to TV & Social Media

1. Teach media literacy – showing how ads are fake
2. Show how advertising creates expectancies
3. Teach children they are powerful creators and can create their own positive experiences without using alcohol.

NREPP Reviewed

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• 3.5 Readiness for Dissemination

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6/13/19