Adolescent Substance Use

A developmental lens for interpretation

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Understanding Substance Use Disorder: A Course for District Court Judges

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Disclosures

I have no financial relationships or other conflicts of interest to disclose.

What I hope we keep thinking about

After this hour, we should be able to:

- Tell "typical" adolescent substance use apart from patterns that signal problems
- See where adult addiction frameworks fit poorly when applied to youth
- Apply a brief interpretive layer: function, context, harm, alternatives
- Notice when the developmental lens is being applied unevenly

Start with the decision

A common situation:

- Positive urine drug screen (marijuana and alcohol metabolites); self-reported vaping
- Report: “noncompliant,” “minimizing”
- Recommendation: escalated response

The question

What response does this behavior justify?

The bind

Two real risks:

Over-reacting

to normative behavior

"Marijuana again. That's it, he/she needs X."

Missing

impactful substance use

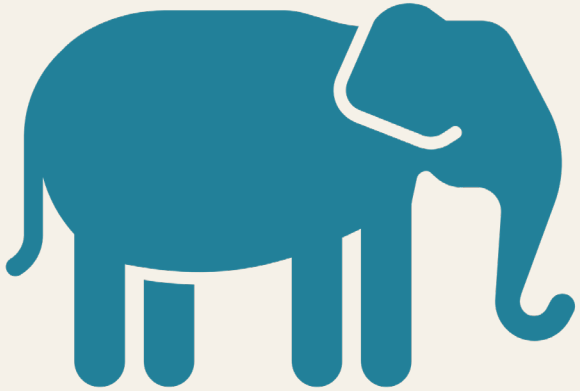
"It's 'just experimentation', let's see how it goes."

Both readings can be incorrect using the same data.

Values

We all have values about youth substance use, and they are not all shared:

- Structure & accountability
- Protection & prevention
- Opportunity & second chances



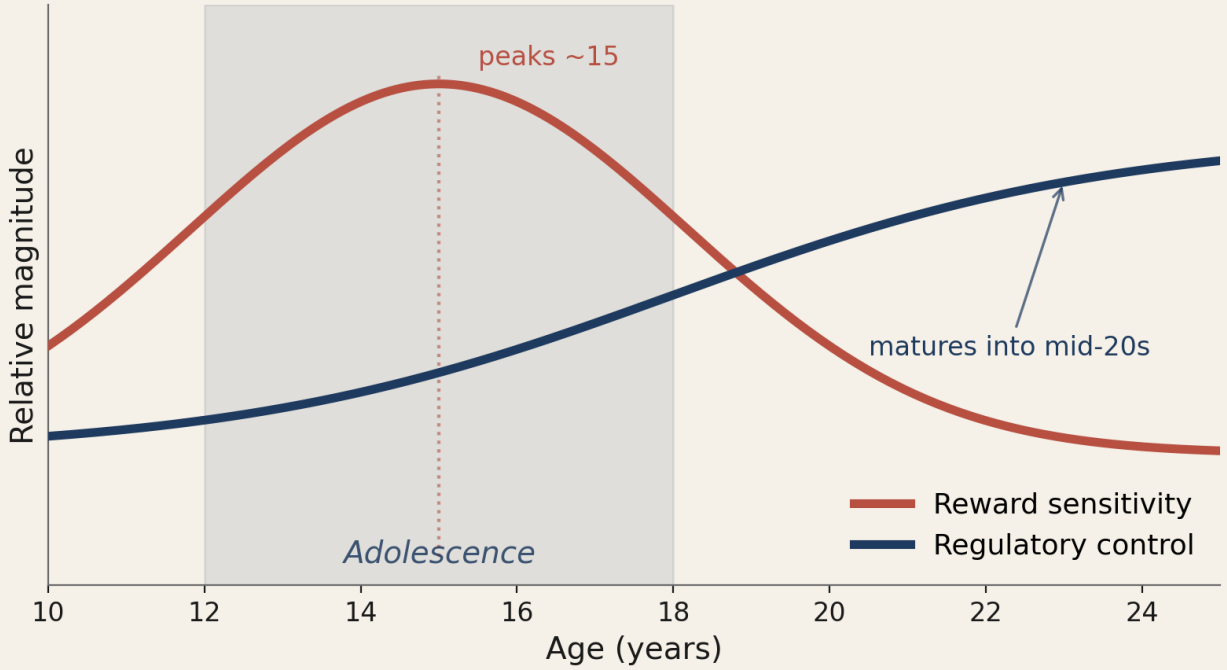
The disagreement is often not values — it's interpretation.

Behavior is a signal embedded in context.

Signals ≠ diagnoses

Normal brain, abnormal signal

Normal system + abnormal signal → predictable adaptation

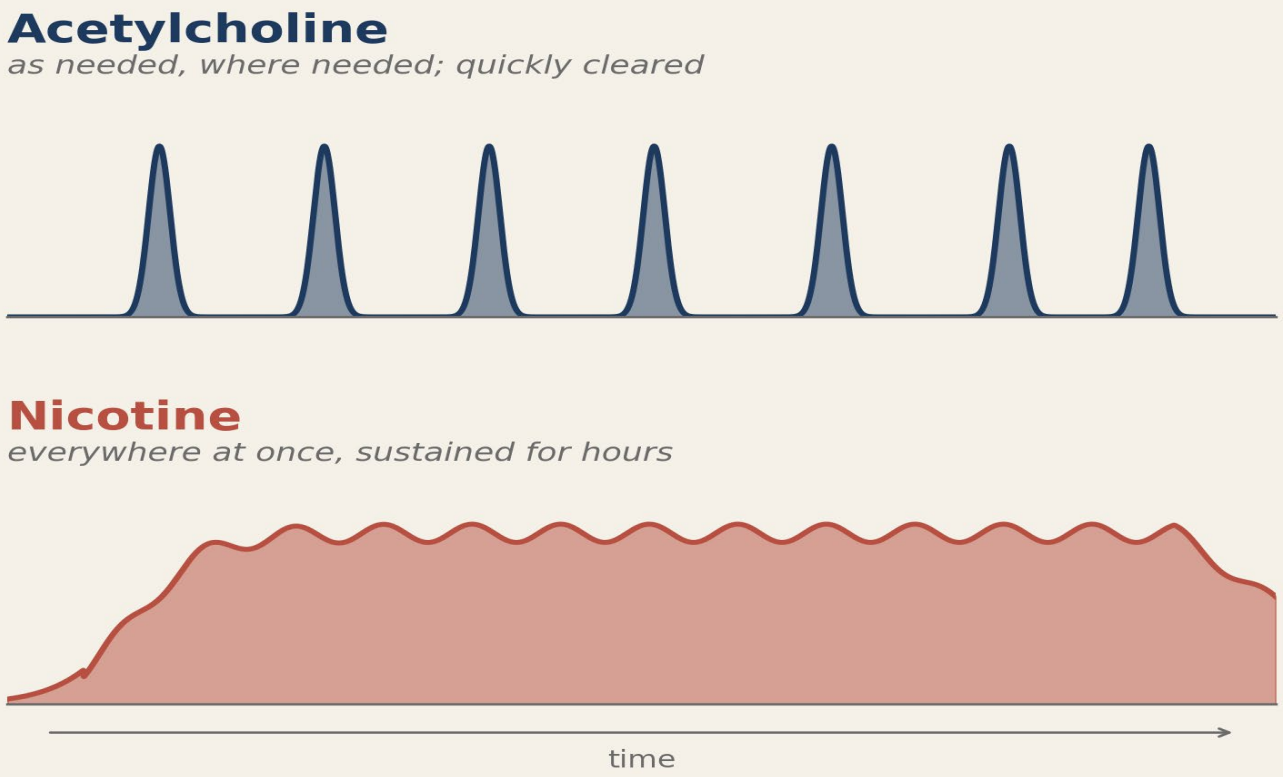


Reward sensitivity peaks ~age 15.
Regulatory control matures into the mid-20s.

Steinberg, 2010 · Casey et al., 2008 · Shulman et al., 2016

Same receptors, different signal

Acetylcholine vs. nicotine



The signal is abnormal. The brain's response is not.

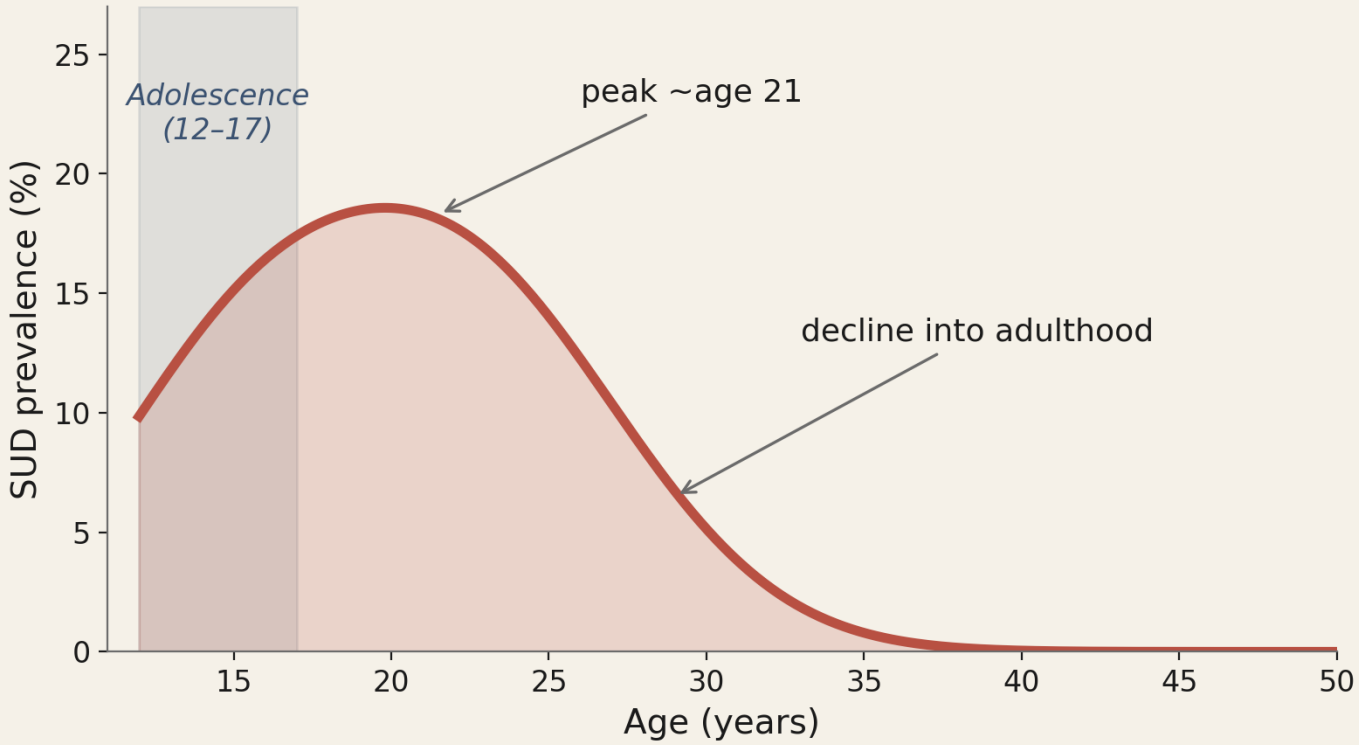
Why adult frames misfire

Adult models are centered on persistence.

Less reliable for early interpretation.

8.7%

of 12–17-year-olds
meet SUD criteria



SAMHSA, 2023 · Schulenberg et al., 2020 · Miech et al., 2024

Why teen patterns can look like adult disorder

Three features that pull the eye to "compulsion"

	Looks like:	*What it is:*
Innate tolerance	tolerance, "can handle a lot"	lower aversive response to early use
Delayed satiety	loss of control, "can't stop"	regulatory feedback fires later at this age
Peer context	compulsive seeking	context-dependent reward and inhibition

Schramm-Sapyta et al. · Doremus-Fitzwater & Spear · Chein, Albert, & Steinberg

Adult-looking patterns. Adolescent mechanisms.

Adolescent specifics

Intervention approaches differ at this age

- Family-involved, not adjacent
- Community- and school-linked, not residential-by-default
- Family-based therapies (MST, FFT, MDFT) anchor the adolescent evidence base
- Not adult treatment in miniature

What works at 35 isn't what works at 15.

On long-term effects

Heavily confounded

What the evidence purports

- Alcohol: heavy use → cognitive findings
- Cannabis: heavy-use findings; attenuate with abstinence
- Nicotine: reward effects; bidirectional, SES-confounded
- Opioids: entangled with withdrawal

Evidence limitations

- Observational, not randomized
- Co-occurs with poverty, trauma, polysubstance
- Persistent users rare in samples
- Reverse causation possible
- Cannabis-IQ effect: SES-driven (Meier/Rogeberg)

Risk ≠ trajectory.

Squeglia et al. · Mokrysz et al., 2016 · Steinfeld & Torregrossa, 2023

Where could decisions shift?

Key moments:

- Violations
- “Resistance” to conditions
- Escalation decisions
- Reading a treatment plan or recommendation

Whether substance use needs a response, when it isn’t the reason they’re in your courtroom

The translation layer

Before responding, ask:

1. What function is this serving?
   social · coping · affect regulation · identity
2. In what context?
   alone vs. peer · private vs. public · supervised vs. not
3. What harm is present now?
   safety · school · function · relational
4. What alternatives could meet the same need?
   present · absent · never tried

Context isn't an excuse. It's information.

Case

A 15-year-old on supervision

- Repeatedly positive UDS for marijuana metabolite
- Reports “occasional” alcohol use
- Reported nicotine vaping with peers (observed at school)

Report · Recommendation

“Noncompliant, minimizing, resistant.”

Escalate response.

“Proportionate" runs both ways

The same lens, both directions

When the formulation may call for less

- Use is specific context-dependent
- Harm not clearly escalating
- Function explainable developmentally
- Adaptive alternatives present

When it may call for more

- Use persists across contexts
- Harm exposure rising
- Function shifting toward self-stabilization
- Alternatives absent or failing

Formulation isn't a brake. It's a lens.

Who gets the developmental lens

Adultification and judicial interpretation

- Court evaluators more often attribute the behavior of youth-of-color to traits rather than phases
- Detention recommendations differ by race/ethnicity at equivalent presentation
- The effects of non-developmental interpretation and response are amplified for marginalized youth

Bridges & Steen, 1998 · Beckman & Rodriguez, 2021 · Echols & Rodriguez, 2025

~4.5 years

Black children perceived as older than chronological age (starting ~age 10)

Goff et al., 2014

Adultification decides which children get to be children.

Signals, not conclusions.

Apply our values more accurately,

across all the children we encounter.