



# Center on Rural Addiction

UNIVERSITY OF VERMONT





# Center on Rural Addiction

UNIVERSITY OF VERMONT

## This presentation is part of the Community Rounds Workshop Series

These sessions are provided monthly thanks to the University of Vermont Center on Rural Addiction, the Vermont Center on Behavior and Health, and a grant from the Health Services and Resources Administration.

*This presentation is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$10,365,921 with zero percentage financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.*



JOINTLY ACCREDITED PROVIDER™  
INTERPROFESSIONAL CONTINUING EDUCATION

# Continuing Education Credits

In support or improving patient care, the Robert Larner College of Medicine at The University of Vermont is accredited by the American Nurses Credentialing Center (ANCC), the Accreditation Council for Pharmacy Education (ACPE), the Accreditation Council for Continuing Medical Education (ACCME), and the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program to provide continuing education for the healthcare team.

**For live attendance to this session, CE/CME is approved as such:**

- 1 AMA PRA Category 1 credit(s)™: each physician should claim only those credits commensurate with the extent of their participation in the activity;
- up to 1 Nursing Contact Hours;
- and 1 general continuing education credits for social workers completing this course.

*Interested in CE/CME credits? Email [cora@uvm.edu](mailto:cora@uvm.edu) or visit [highmarksce.com/uvmmed/](https://highmarksce.com/uvmmed/) following today's webinar*

# Disclosures

There is nothing to disclose for this UVM CORA Community Rounds session.

## **Potential Conflict of Interest (*if applicable*):**

All Potential Conflicts of Interest have been resolved prior to the start of this program.

All recommendations involving clinical medicine made during this talk were based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in the care of patients.

This activity is free from any commercial support.



JOINTLY ACCREDITED PROVIDER™  
INTERPROFESSIONAL CONTINUING EDUCATION



**Center on  
Rural Addiction**  
UNIVERSITY OF VERMONT

# **A Multigenerational Approach to the Prevention and Treatment of Substance Use Disorders**

**Peter R. Jackson, MD**

Pediatric Psychiatrist and Assistant Professor

University of Vermont Larner College of Medicine, Burlington, VT

---

## Session Objectives

- Recognize the role genes and shared environment play in multigenerational perpetuation of substance use disorders
- Understand familial risk and protective factors for substance use
- Identify key stages of the individual and family life-cycle for multigenerational interventions
- Increase confidence to invite family members to support treatment and participate in preventive measures
- **Recognize opportunities for prevention of further harm from substance use disorders, no matter the age or life stage of the individual whom we are treating.**

**“My heart is the least of my problems.”**

## When is the right time for prevention?



- “That’s really cool, you’ll be able to do not only treatment but prevention with that age!”
- A life-cycle and multigenerational approach can help us get rid of the tendency think “too late” or “too early”



# Room for Improvement in Prevention

JAMA | US Preventive Services Task Force | EVIDENCE REPORT

## Interventions to Prevent Illicit and Nonmedical Drug Use in Children, Adolescents, and Young Adults Updated Evidence Report and Systematic Review for the US Preventive Services Task Force

Elizabeth O'Connor, PhD; Rachel Thomas, MPH; Caitlyn A. Senger, MPH; Leslie Perdue, MPH;  
Shannon Robalino, MSLS; Carrie Patnode, PhD, MPH

**CONCLUSIONS AND RELEVANCE** The evidence for behavioral counseling interventions to prevent initiation of illicit and nonmedical drug use among adolescents and young adults was inconsistent and imprecise, with some interventions associated with reduction in use and others associated with no benefit or increased use. Health, social, and legal outcomes were sparsely reported, and few showed improvements.

# Family

“Happiness is having large, loving, caring, close-knit family in another city.”

– George Burns

“A dysfunctional family is any family with more than one person in it.”

– Mary Karr

“Home is where you are loved the most and act the worst.”

– Marjorie Pay Hinckley

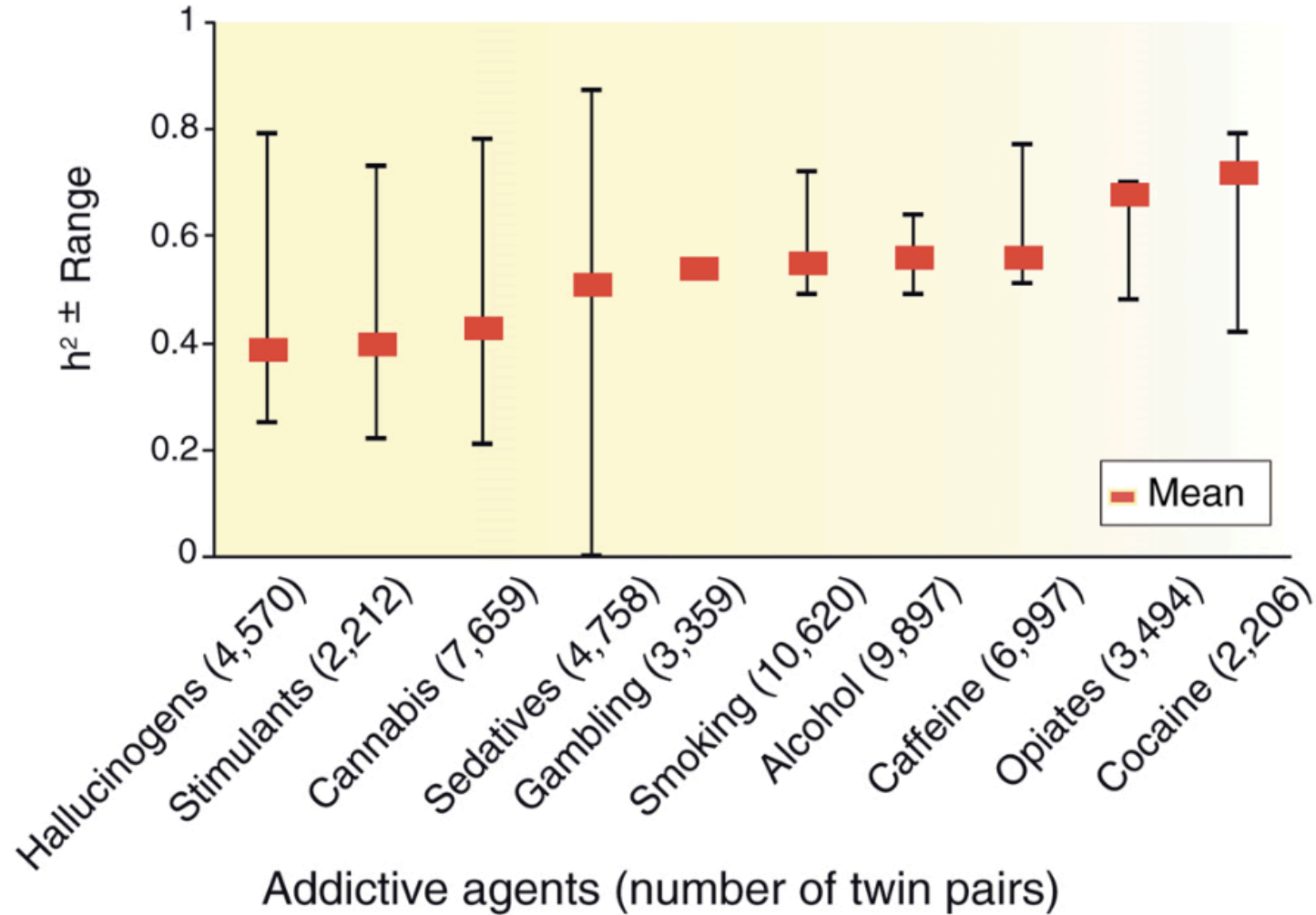
“All happy families are alike, each unhappy family is unhappy in its own way.” – Leo Tolstoy



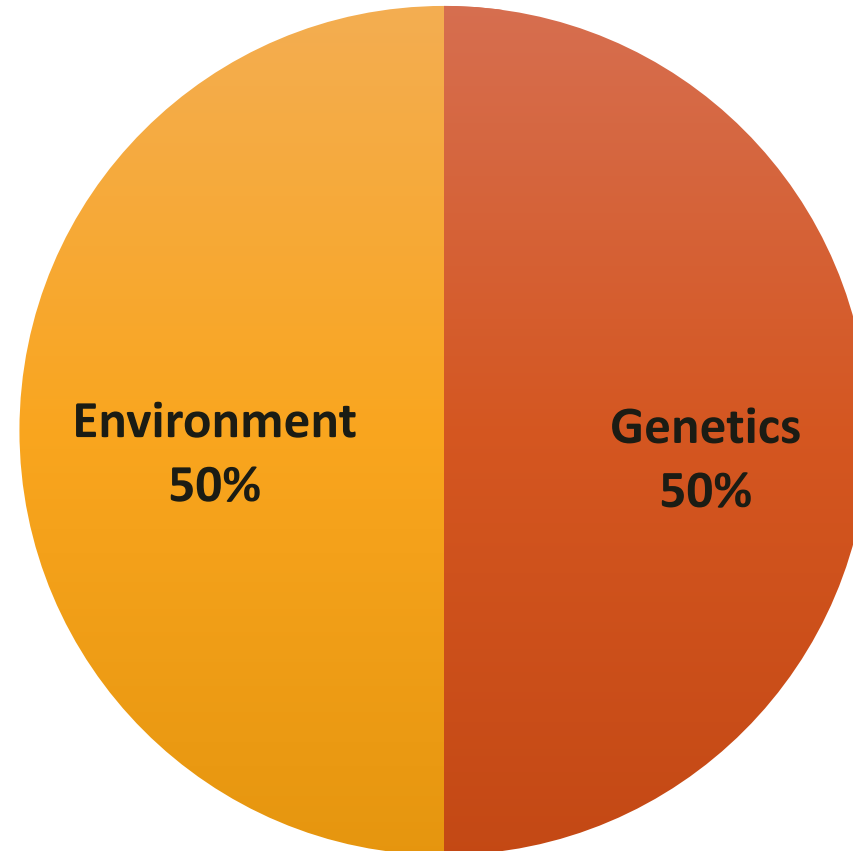
**Both genes and environment play a role in the heritability of substance use disorders**



# Genes and Addiction

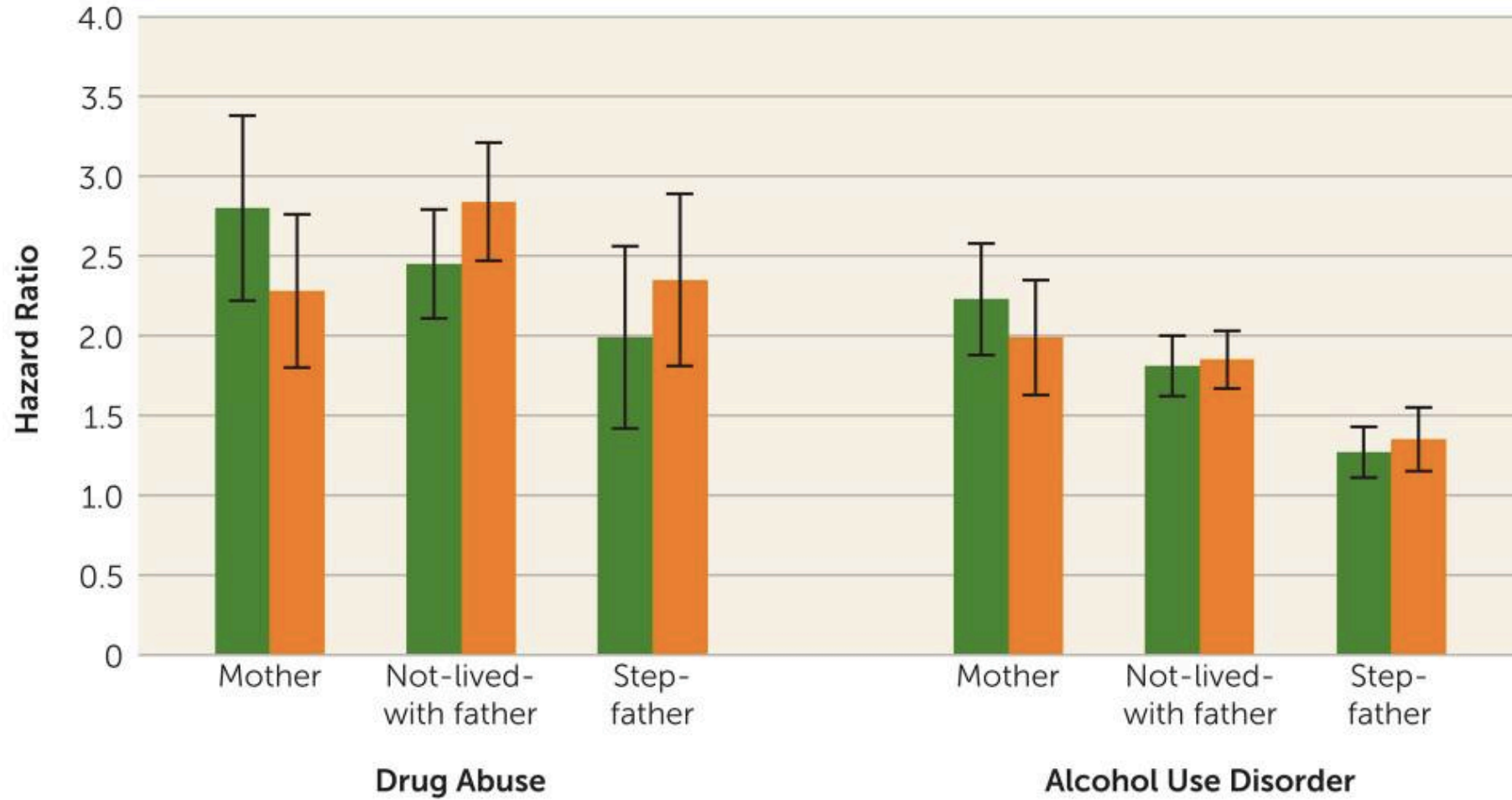


# Why Look at the Life Cycle Perspective?



**Heritability of Substance Use Disorders**

# Nature of Nurture?



Kendler L et al, 2015

# In Utero Exposure: From the Beginning

## Tobacco

- > 2 X likely to smoke during adolescence (Porath & Fried 2005)

## Alcohol

- More predictive of adolescent alcohol use than family history (Baer et al., 1998)
- Increased risk for cigarette use and substance use disorders (O'Brien & Hill 2014)

## Cannabis

- 2X more likely to smoke cigarettes daily, use marijuana in adolescence (Porath & Fried, 2005).

## Cocaine

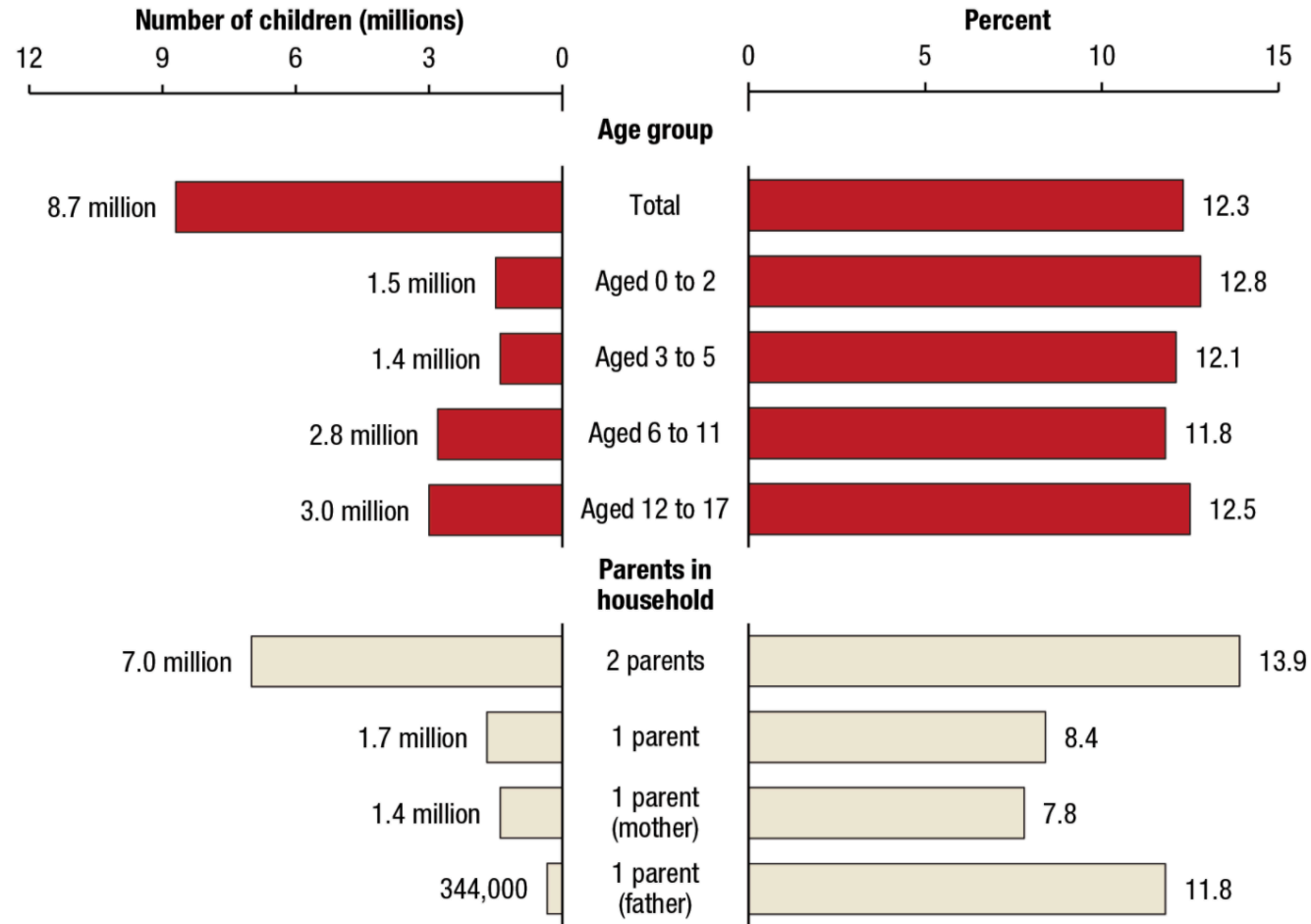
- > 2 X likely to use tobacco and marijuana and have an SUD at age 17 (Minnes et al., 2017)

# Epigenetics: Before the Beginning

- Transgenerational effects of environmental toxins on offspring
- More data comes from rodent models, but several studies in humans
- Both maternal and paternal impacts, with an additive effect
- Impairments and impact on next generation include:
  - Decreased fertility
  - Developmental abnormalities
  - Anxiety and depression-like phenotypes
  - Impairment in learning/memory/attention
  - Altered responsiveness to substances (liking it more)



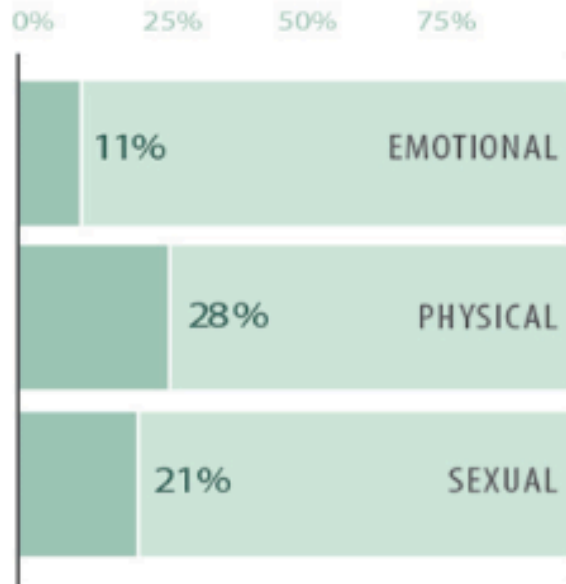
# Living with a Parent with a SUD



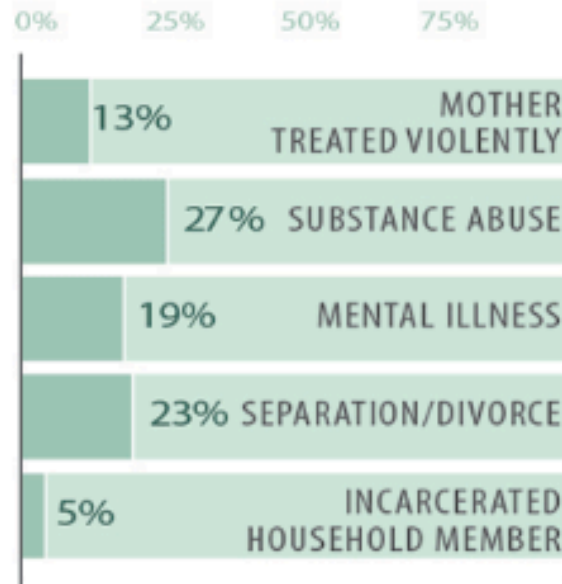
Samsa.gov; NSDUH 2009-2014

# Adverse Childhood Experiences

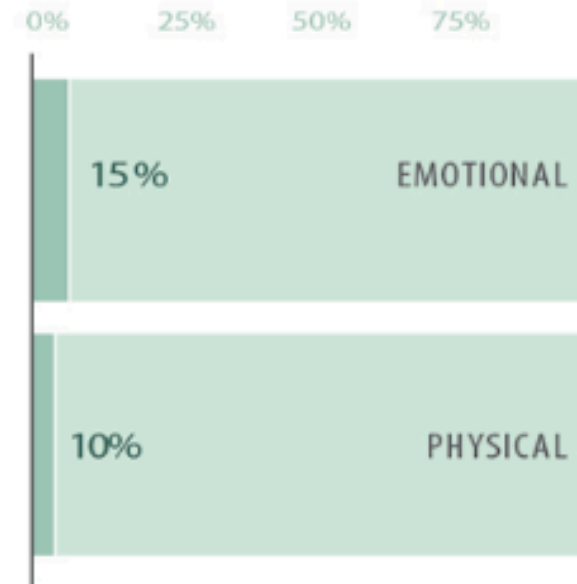
## ABUSE



## HOUSEHOLD CHALLENGES

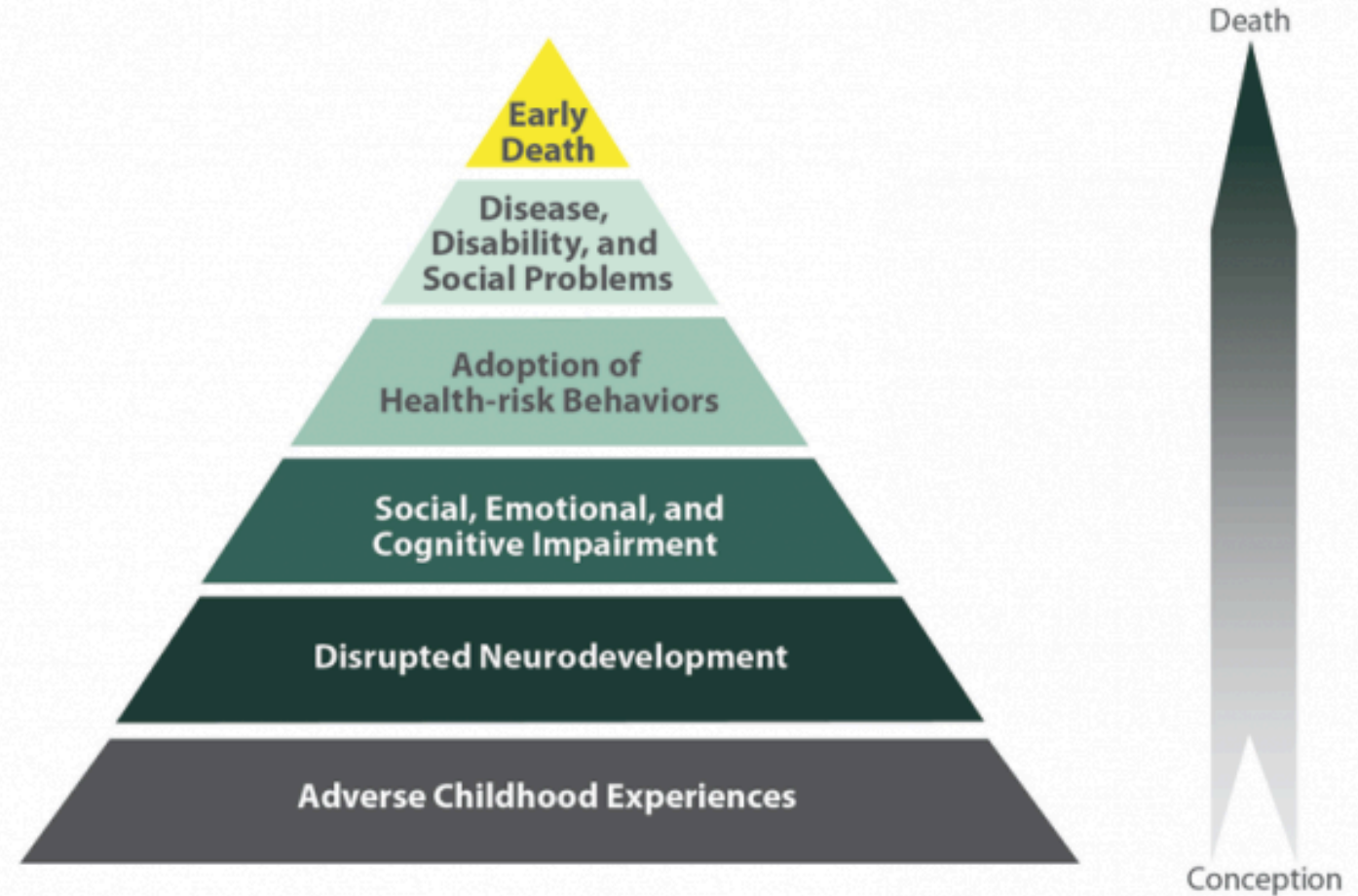


## NEGLECT



<https://www.cdc.gov/violenceprevention/acestudy/about.html>

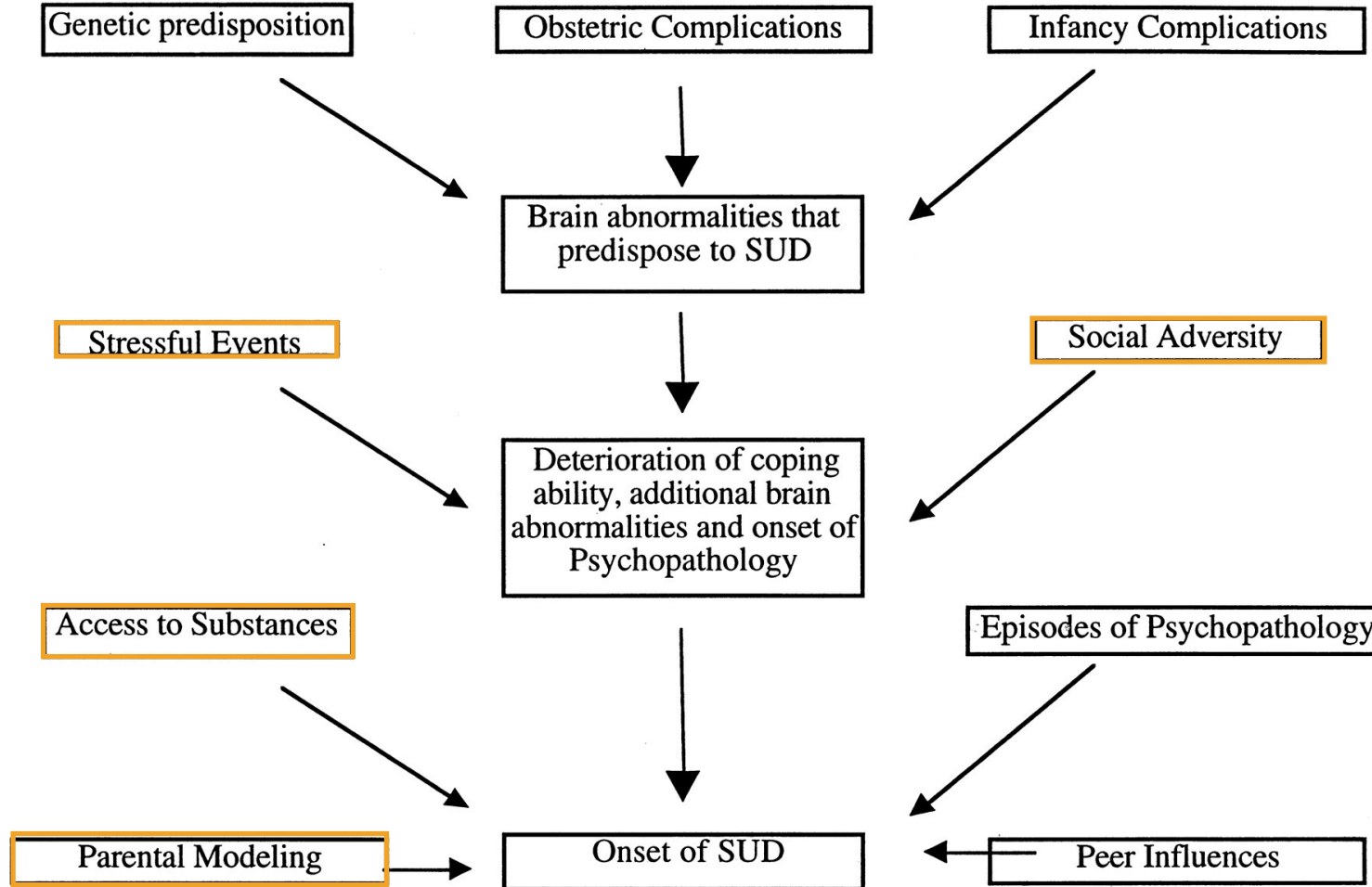
# Adverse Childhood Experiences



Mechanism by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

<https://www.cdc.gov/violenceprevention/acestudy/about.html>

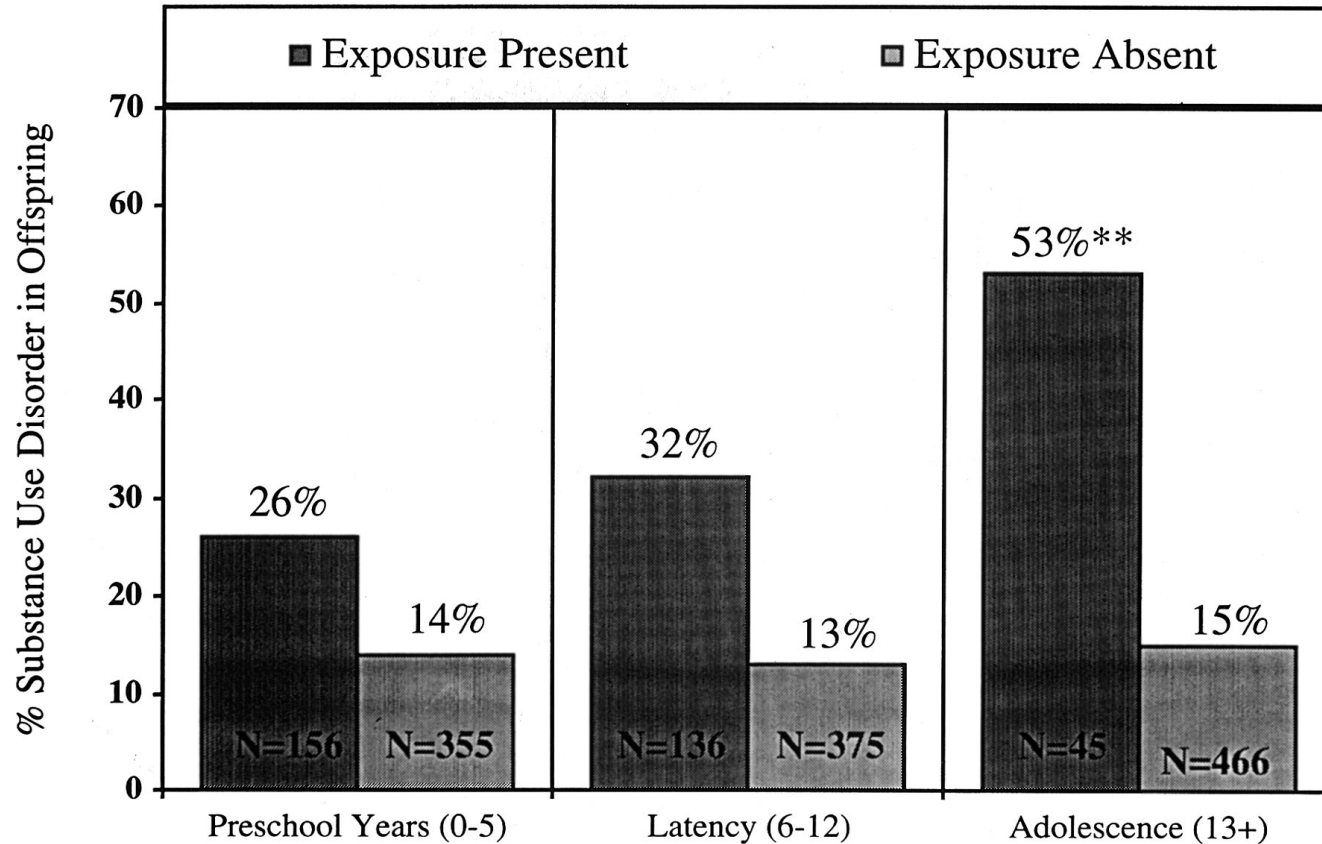
# Hypothetical Developmental Sequence of the Cause of Substance Use Disorders



## Childhood Exposure

- Adverse Childhood Experiences (ACEs) lead to increase likelihood of SUD which leads to an increase likelihood of ACEs for the next generation. (Dube et al, 2003)
- ACEs contribute additively to the risk of SUD with mood and anxiety disorder along the causal path. (Douglas et al 2010)
- Adolescence is a particularly high-risk period for the exposure to parental SUD. (Biederman et al 2000)
- Some studies show a stronger link with Maternal SUD than paternal SUD, particularly among females. (Yule et al 2018, Yule et al 2013)

# Critical Periods of Exposure to Parental Substance Use Disorder



**Exposure to Parental Substance Use Disorder**



Alyssa Schukar, The New York Times, 2019

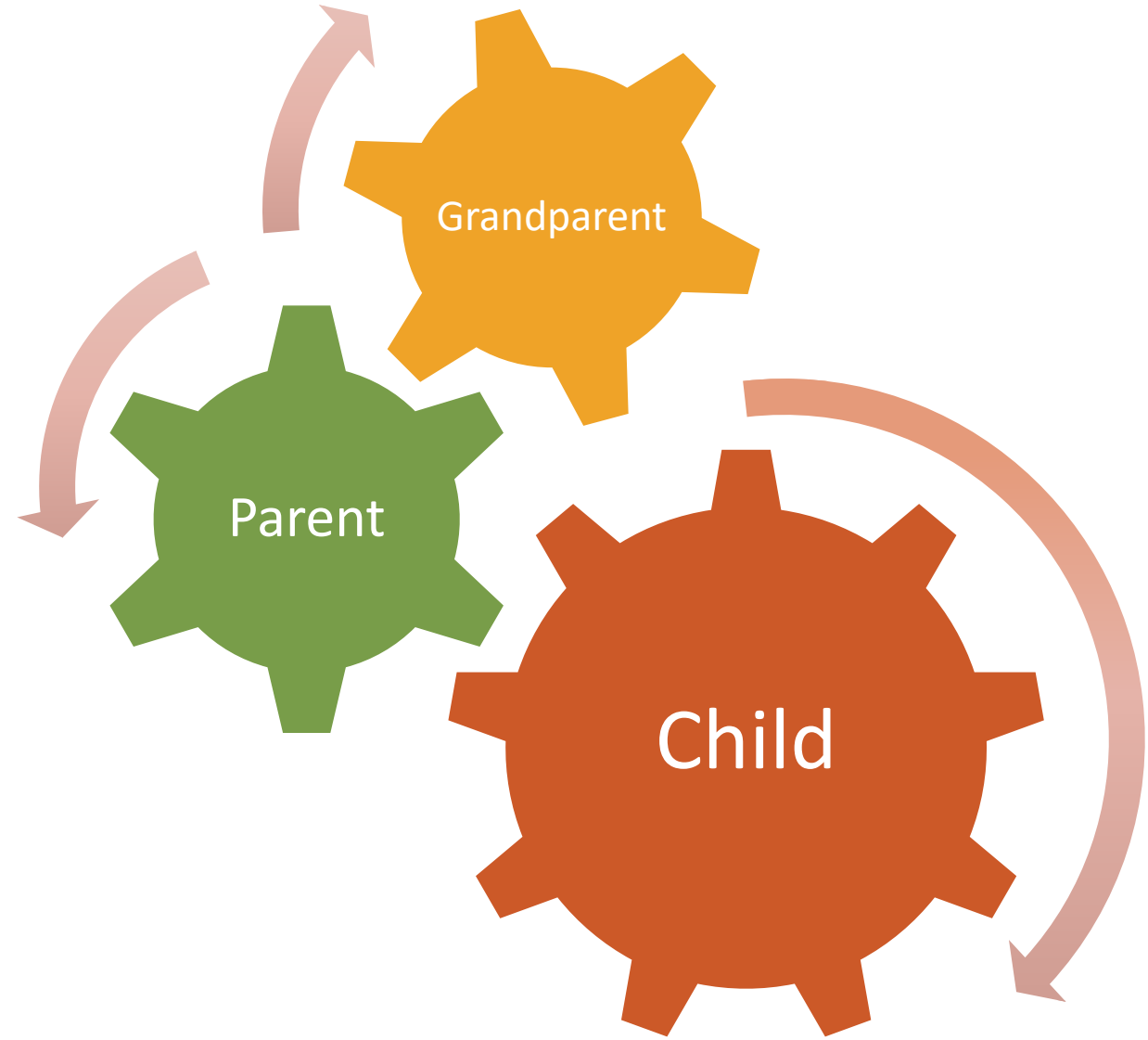
## Exposure to Parental Use

- Parental cannabis use associated with child initiation and use
- One parent using doubles risk of starting compared to peers with parents who don't use
  - No statistical difference between maternal and paternal use
- Two parents using increased risk of child initiation and use by 7- fold

O'Loughlin, 2019

---

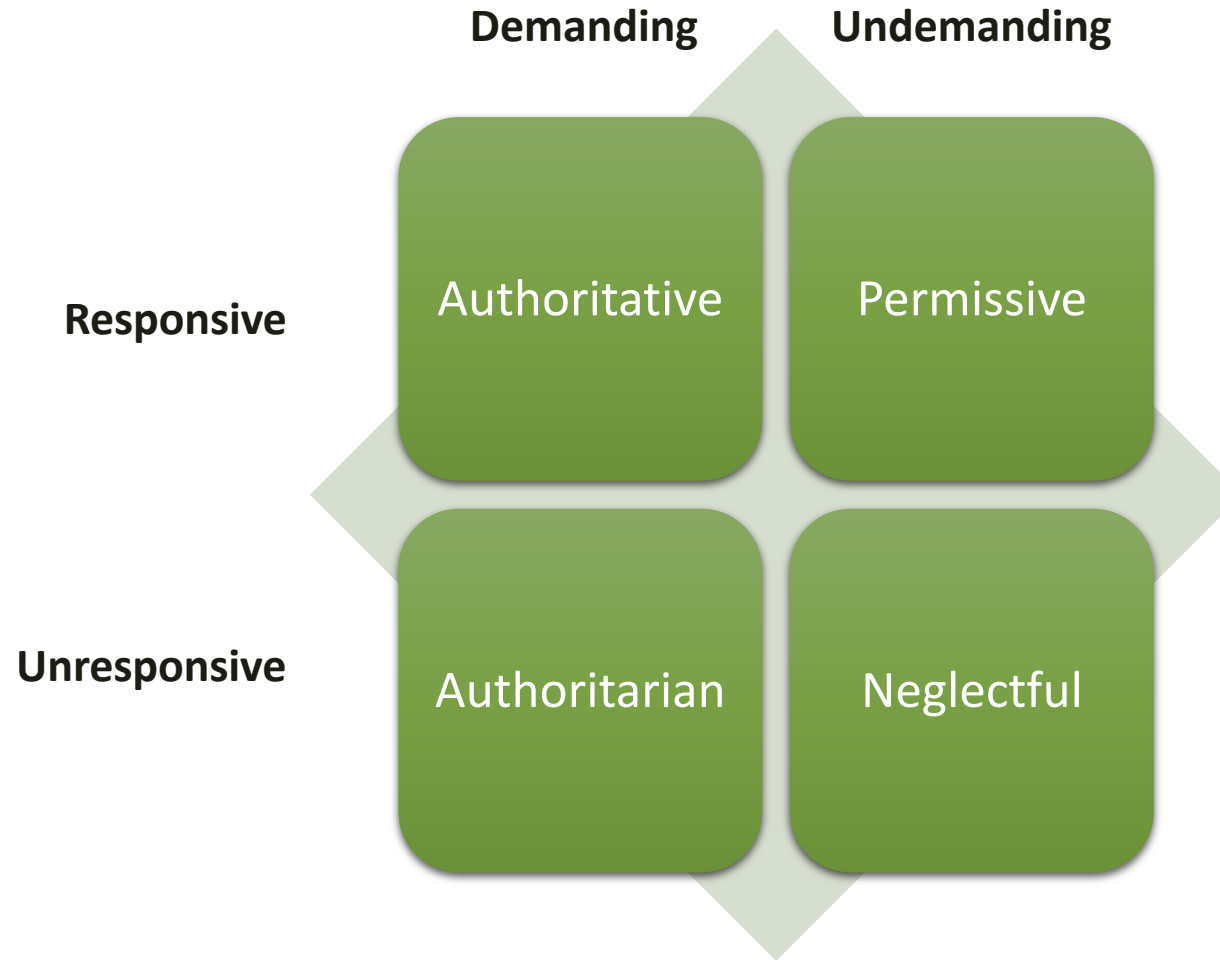
## Why take the family perspective?





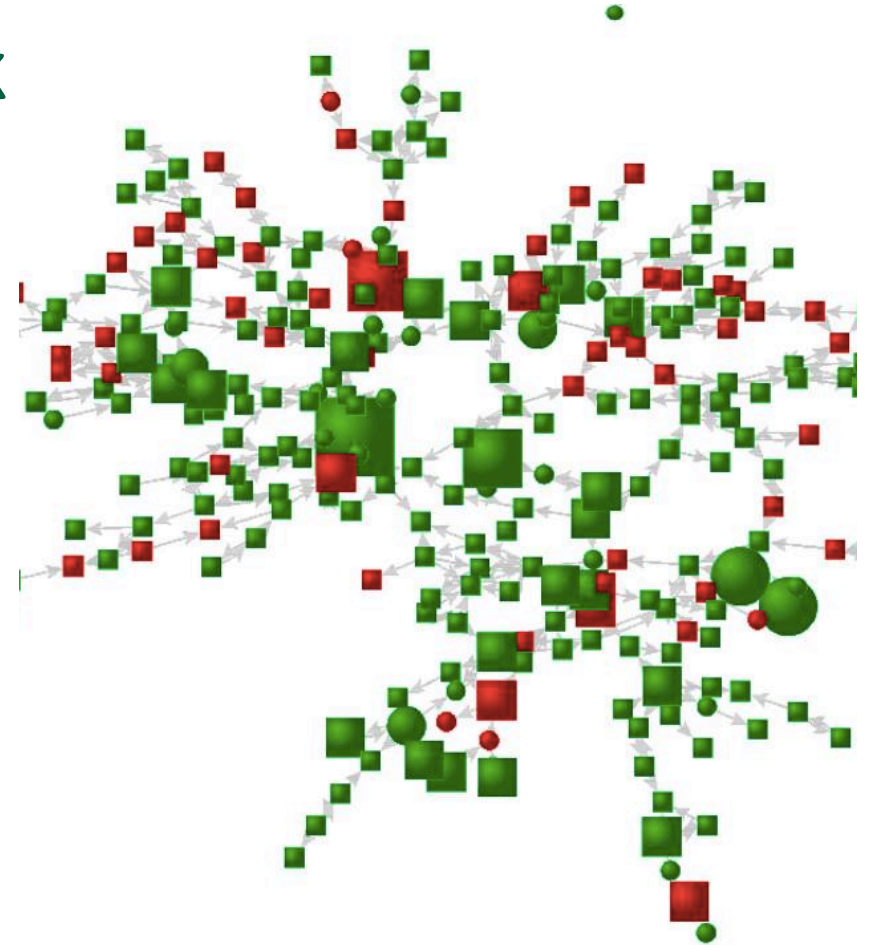
**We know a lot about family risk and protective factors for perpetuation of SUD**

# Baumrind Parenting Styles



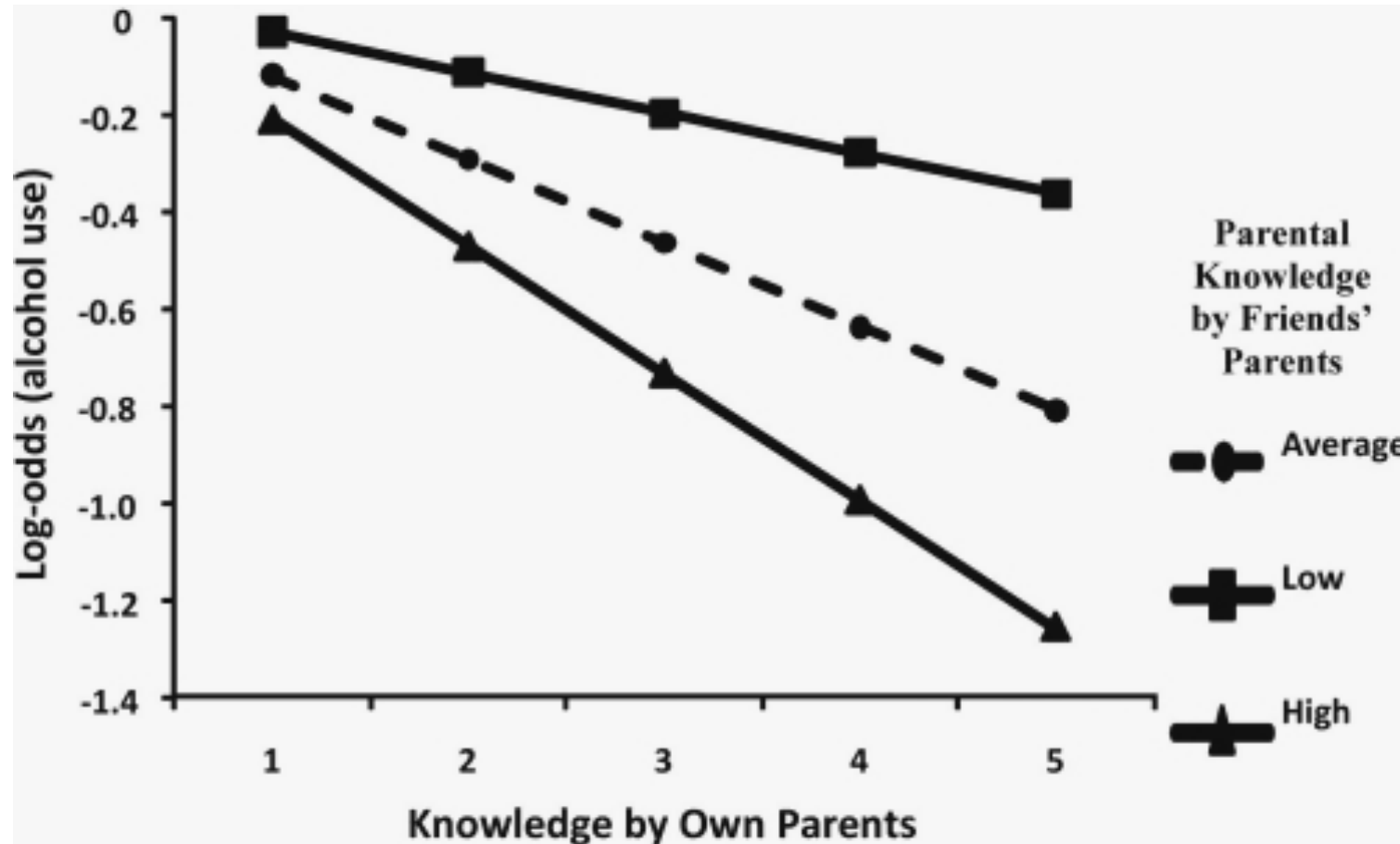
## Parenting and the Social Network

- The Influence of an Authoritative Mother Extends Beyond Her Own Child and Into the Social Network.
- The association of a close friend's mother almost as powerful as own mother



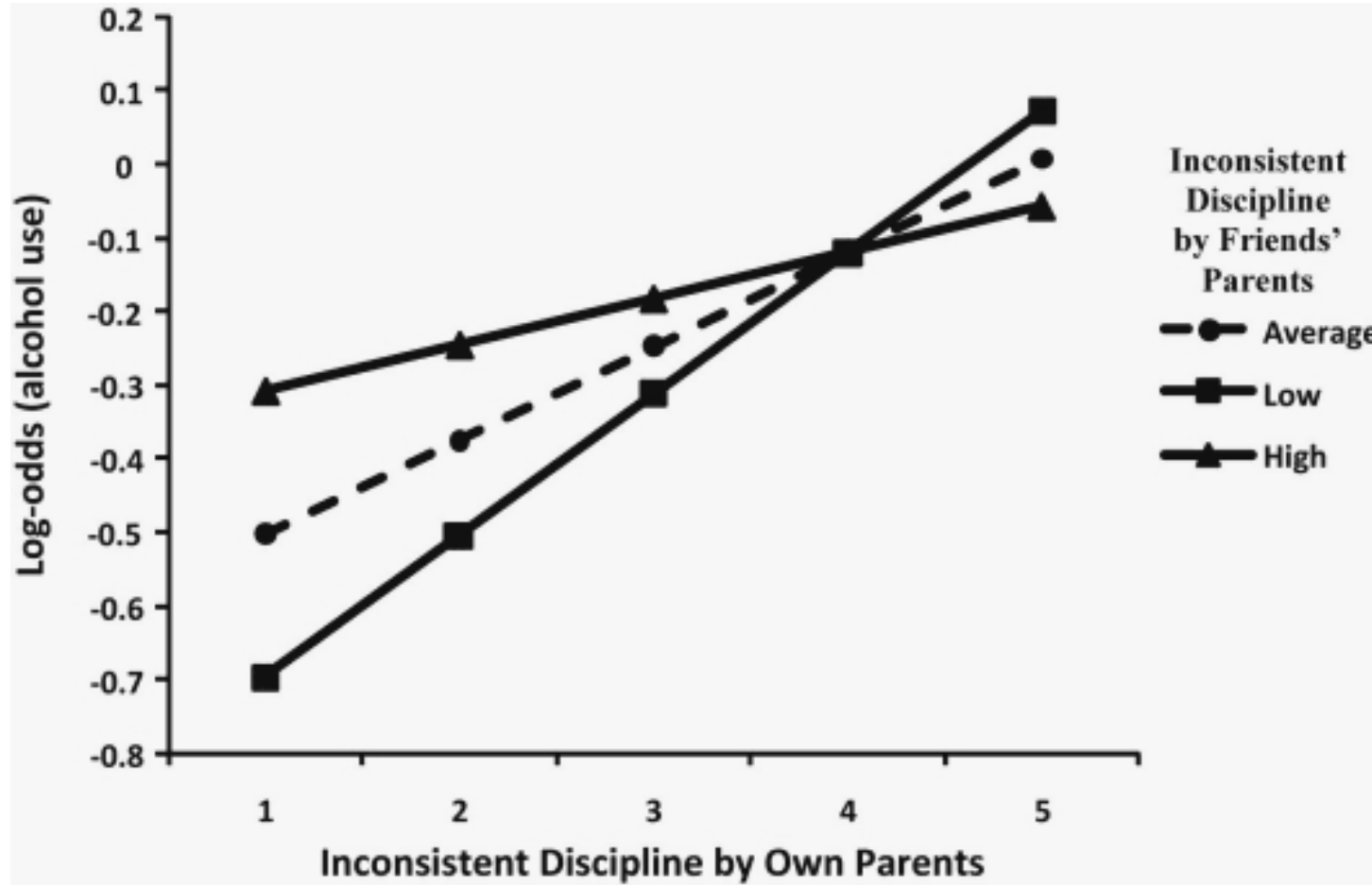
Shayka et al 2012

# Parental Influence: Knowledge



Cleveland et al. 2012

# Parental Influence: Consistent Discipline



# “Talk, they hear you”

## Express Disapproval

- Actions speak louder than words. (Ebersole, 2014)
- Words speak louder than no words. (Mrug 2013)
- Permissive parental attitude associated with 8-fold increase in past 30-day cannabis use, 14-fold increase in weekly use. (Olsson 2003)
- Difference more dramatic for 9<sup>th</sup> graders than 11<sup>th</sup> graders



# Risk Factors



## Individual

Early aggressive behavior; male gender; untreated psychiatric illness especially ADHD, mood disorders, PTSD and learning disorder; history of physical or sexual abuse, low self esteem; academic underachievement; poor social skills; peer rejection



## Family

Family history of substance abuse; poor parental or sibling modeling behaviors; chaotic home environment; poor parent-teen communication; high family conflict, or witnessing domestic violence; permissive or neglectful parenting style



## Community

High prevalence of substance abuse in the community including availability of substances and tolerance of their use, lack of supportive relationships with other caring adults

# Protective Factors

---

## Individual

High impulse control and emotion regulation skills.

## Parents

Positive modeling behaviors; excellent communication skills; high level of emotional support combined with limit setting and consistent enforcement of rules (authoritative model); appropriate supervision.

## Peers

Non-substance using friends; presence of peers with authoritative parents

## Community

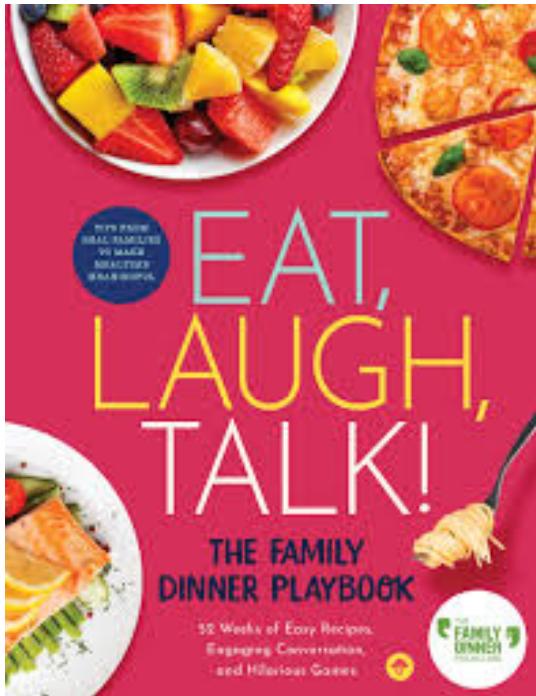
Zero tolerance policies; strong community attachment, low availability of substances

## School

Extracurricular activities; sports; positive role modeling in teachers and coaches; educational programming



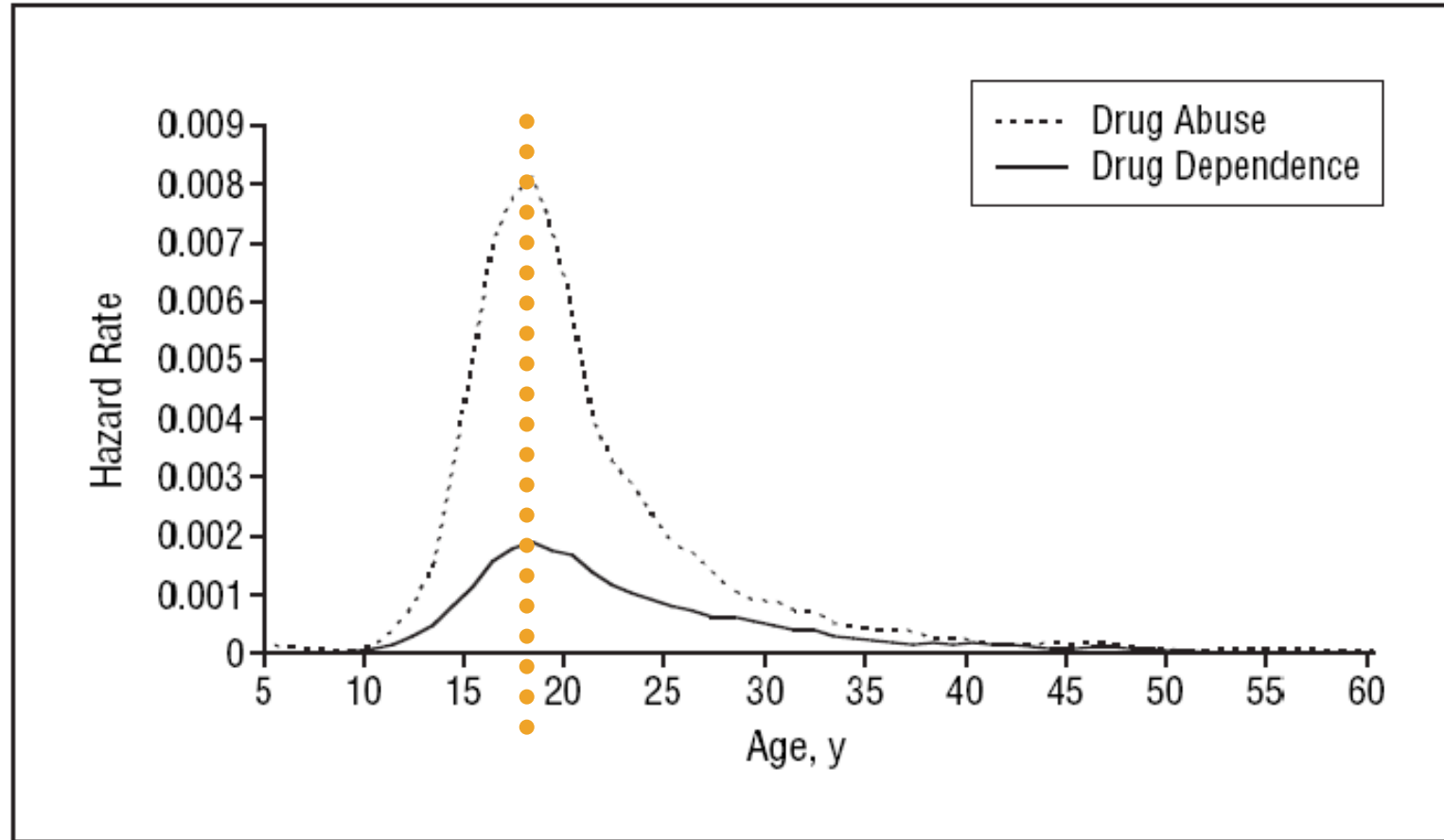
## Building Resilience - Family Rituals



- Family Dinner
- Evening/bedtime
- Weekends
- Vacations
- Visitors
- Holidays

**Though there is never a wrong time,  
there are some key stages for intervention**

# Age at Onset of DSM-IV Drug Abuse and Dependence



## Earlier Exposure = Higher Risk

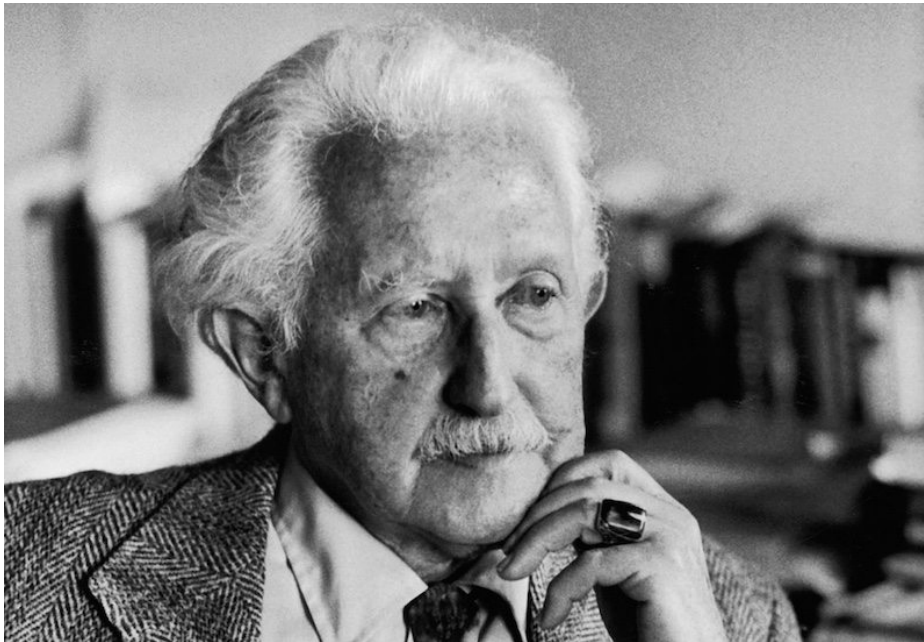
Age of first drink	Development of SUD
Before 14	15%
After 21	2%

## Prevalence

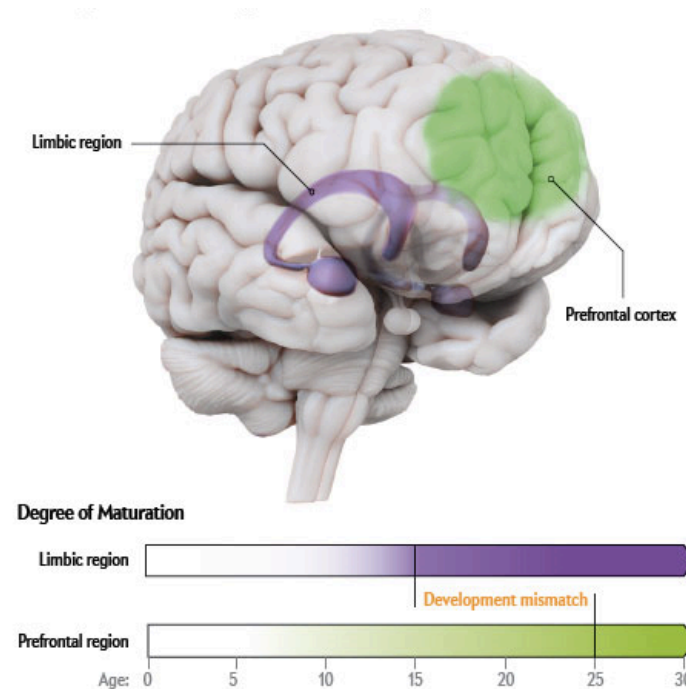
	13-14 y	15-16 y	17-18 y
Any SUD	3.7 %	12.2 %	22.3 %

Merikangas et al. 2011

# Education About Developmental Stages



Erik Erikson, Developmental Theory and psychology

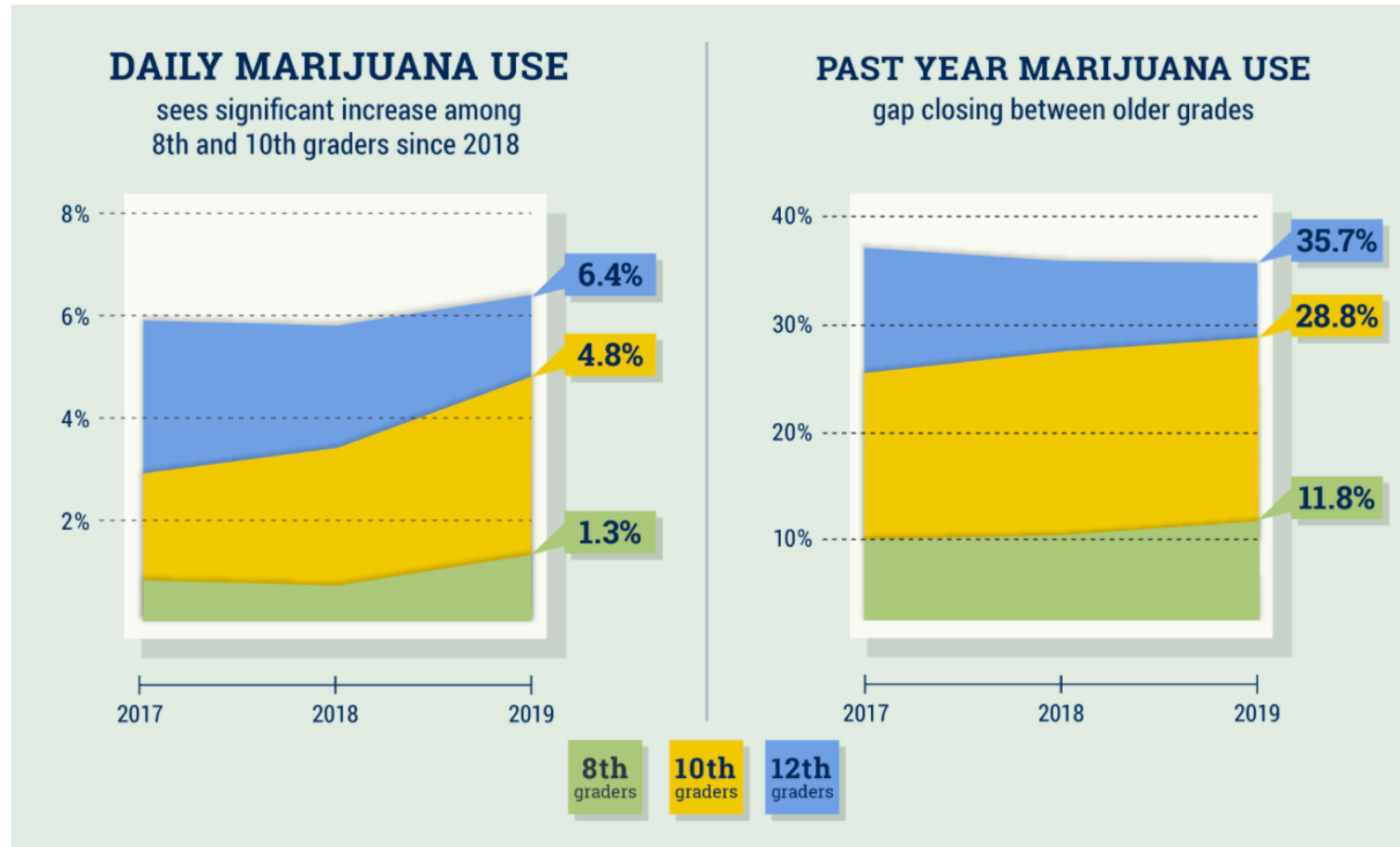


Anatomy, physiology and biochemistry

## “Kids will be kids...”

- “I just make sure they’ve all given up their car keys and make sure it stays in my own basement”
- “They only listen to their friends, that’s normal for teenagers.”
- “The more strict I am, the more they’ll use.”
- “A little rebellion is normal, all kids do it.”
- “I’d be a hypocrite if I told them not to use it when I did/do.”

# Do “all teenagers experiment a little”?





# Individual and Family “Lifecycle Hotspots”

- **Perinatal and postnatal**  
“This affects two of us.”
- **Latency**  
Primary preventive age
- **Teens**  
Gas before brakes
- **College Age/Early Adulthood**  
Social risk factors,  
acceptability
- **Empty Nest**  
Loss of meaning
- **Retirement**  
Generativity vs. stagnation,  
loss of purpose
- **Senior years**
  - Loneliness

**Family based preventive strategies  
have been validated**

# Positive Parenting

- **Communication:** calm and clear
- **Encouragement:** of positive behaviors
- **Negotiation:** working towards solution when conflict arises
- **Setting limits:** calmly and in proportion to behaviors
- **Supervision:** know friends and schedule



# Strengthening Families 10-14

## Points of emphasis

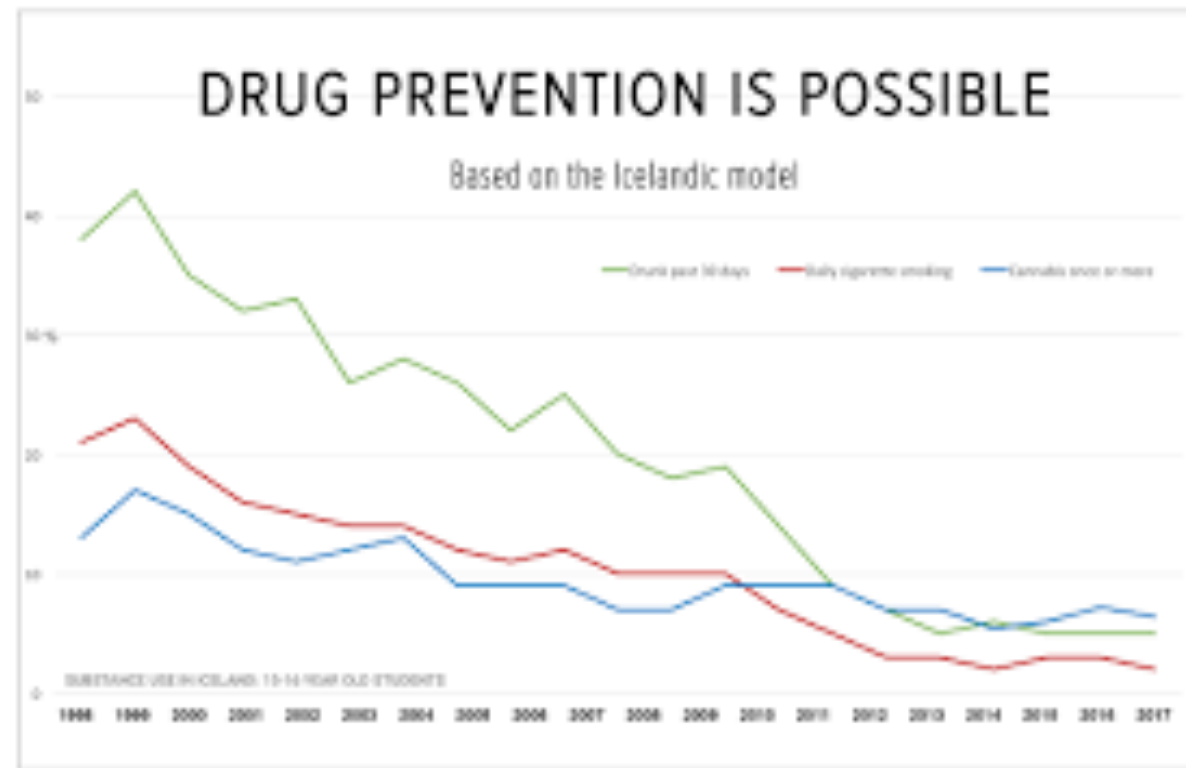
- “Love and Limits”
- Acknowledging strengths
- Supporting Goals
- Improving communication
- Clear family rules and values
- Quality time
- Preparing for peer pressure



# Icelandic Model of Prevention – Planet Youth

## Points of emphasis

- Primary prevention
- Say “yes”, not just “no”
  - “Leisure card”
  - Extracurricular clubs
  - Music
  - Sports
- Quality family time
- Knowing where kids are
- Community commitment
- Parents knowing parents



**Family based treatments  
have also been well studied**

---

# Mothering From the Inside Out: Targeted Intervention for Mothers with SUD and Children Ages 1-5

## Short Term Goals

- Positive therapeutic experience, validation
- Makes sense and meaning of affective experiences

## Long Term Goals

- Improved maternal emotion regulation
- Restore capacity for human attachment (attachment to child replaces attachment to substances)
- Increase enjoyment of child, tolerance of child's distress
- Increase understanding of child's needs and support for development of emotional regulation in the child

---

# Mothing From the Inside Out: Targeted Intervention for Mothers with SUD and Children Ages 1-5

## Results of two randomized trials

- Higher degree of reflective functioning
- Improved caregiving behavior
- Clearer efforts from children to communicate with their mother
- Lower rates of relapse

## 12 month follow up

- Greater maternal sensitivity
- Improved child involvement in interactions
- Better dyad reciprocity
- Protective benefits demonstrated even with greater addiction severity



## Evidence-Based Family Treatments

In a meta-analysis reviewing psychosocial treatments for adolescent substance use, 5 out of 6 treatments that were found to have promising to excellent empirical support were family-based:

- Multidimensional Family Therapy
- Functional Family Therapy
- Multisystemic Family Therapy
- Brief Strategic Family Therapy
- Family Behavioral Therapy



Drug Policy Alliance, Getty Images

Waldron, 2008

---

# Themes: Evidence-Based Family Treatments

- Contingency management
- Improving communication
- Parent training for effective discipline
- Conflict resolution techniques
- Behavioral contracts
- Motivational interviewing/motivational enhancement
  - For both family and adolescent
- Involving and connecting multiple systems
  - Home, school, neighborhood, clinic, social groups

## Evidence-Based Interventions for Concerned Loved Ones

- Community Reinforcement and Family Therapy (CRAFT) is evidence-based for the concerned loved ones of adolescents or adults.
- CRAFT can be modified and targeted specifically towards adolescents with incorporation of other behavior training principles. (Kirby et al. 2015)
  - Guidance about behavior monitoring
  - Effective/appropriate discipline
- Randomized controlled trial is underway.



Getty Images

---

## CRAFT Principles

- Safety training
- Functional analysis
- Positive reinforcement/contingency management
- Competing reinforcing activities
- Planned ignoring
- Natural consequences
- Communication skills training
- Treatment entry training (preparing to invite)
- Life enrichment for concerned loved one

## CRAFT vs. Other Unilateral Strategies

Method	Family member's engagement in treatment
CRAFT	64-74%
Johnson Intervention	23-30%
Al-Anon/Nar-Anon facilitation	13-29%

**“How can we help make the hard things  
talk-about-able?”**



## Parents and children benefit from being able to discuss parental cancer

- Using age-appropriate language and communication
- Guidance for communication at various stages of disease
- Secrets are often scarier unsaid
- Strengthening confidence in the role of parent even if sick

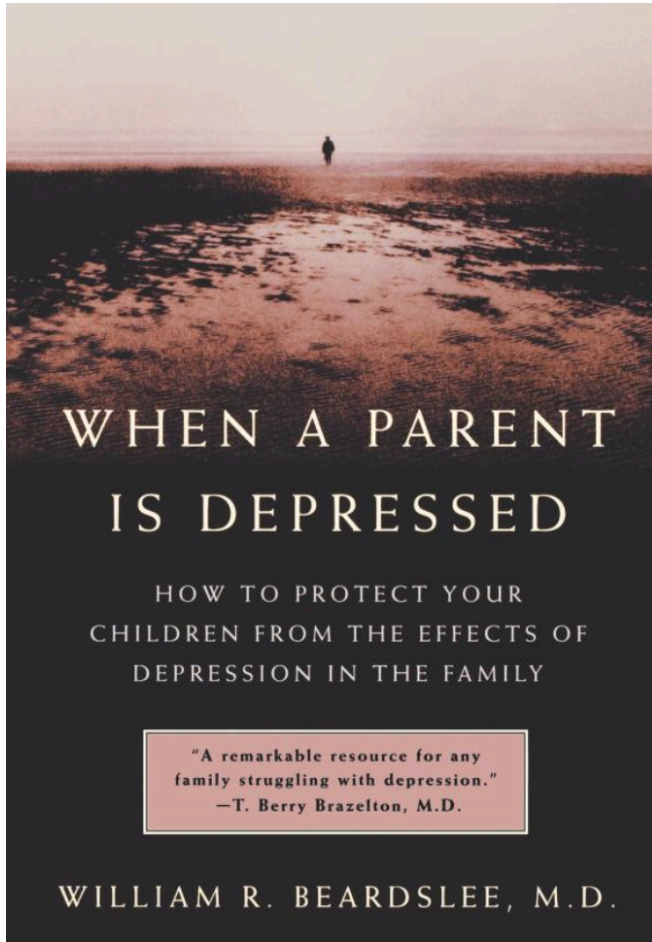


F•O•C•U•S

## Parents and children benefit from being able to discuss parental PTSD

- “Families Overcoming Under Stress”
- Emotional regulation
- Communication
- Problem solving
- Goal setting
- Managing reminders of stress





## Parents and children benefit from being able to discuss parental depression

- Finding ways to communicate effectively about parental illness
- Share your history
- Keep an open dialogue
- Share with your child that you are getting help
- Address the needs of your children

**So, wouldn't parents and children benefit from being able to discuss parental **SUD**?**



Getty Images

“Anything that's human is **mentionable**, and anything that is **mentionable** can be more **manageable**. When we can talk about our feelings, they become less overwhelming, less upsetting, and less scary.”

- Mr. Fred Rogers

# What is your family's story?

- Are there multigenerational patterns?
- Creating a family narrative (Saltzman, 2013)
  - Balanced narratives are the most healthy
    - We aren't perfect, we aren't all bad
    - We strive through challenges
  - Kids who know where they come from have higher resilience (Duke, 2008)



Wall Street Journal, 2015

## If There is Parental or Family History of SUD:

- If kids ask directly, an honest, straightforward answer is encouraged
  - “When is my child ready to hear about this?”
- Details of past use aren’t needed
- Glorifying language is dangerous
- Kids often know more than parents think they know

---

## Having Hard Conversations: Family Therapy 101

- Be planful
- If it gets heated, take a break and decide when to try again
- Perspective taking and reflective listening
- “Invalidating the invalid is still invalidating”
- Use of a “talking object” to prevent interruption
- Use of “I” statements rather than accusations

---

# Communicating with Children Affected by Parental SUD: The 7C's

- I didn't **cause** it.
- I can't **cure** it.
- I can't **control** it.
- I can **care** for myself,
- By **communicating** my feelings,
- Making healthy **choices**, and
- By **celebrating** myself.

# Sesame Street Addresses Parental Addiction

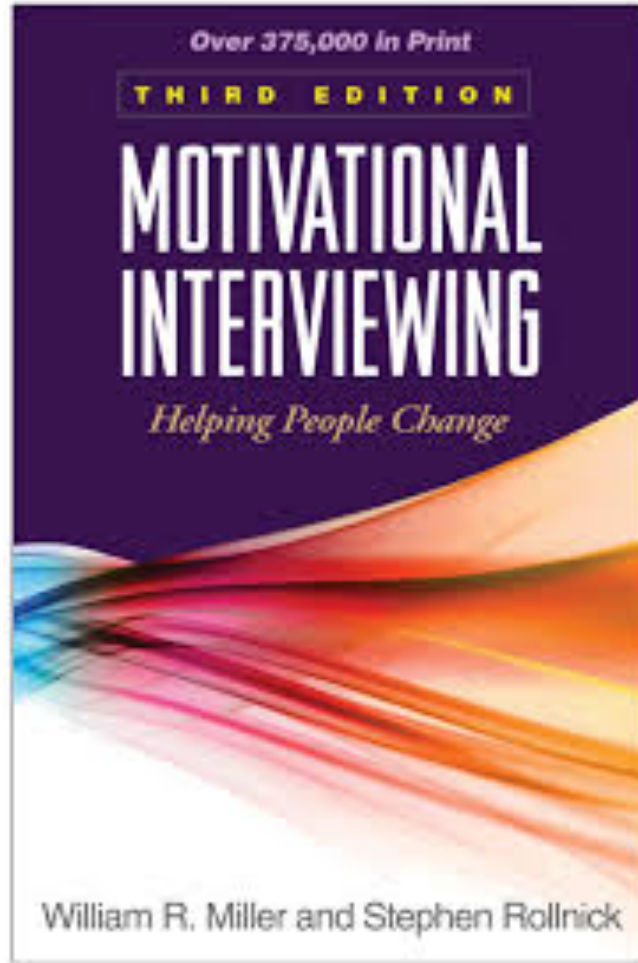


Salia and Karli from Sesame Street

- “They were gone for 60 days but it felt like 60 years.”
- “For any sickness, people need treatment to feel better.”



# Thinking about some of the “soft skills”



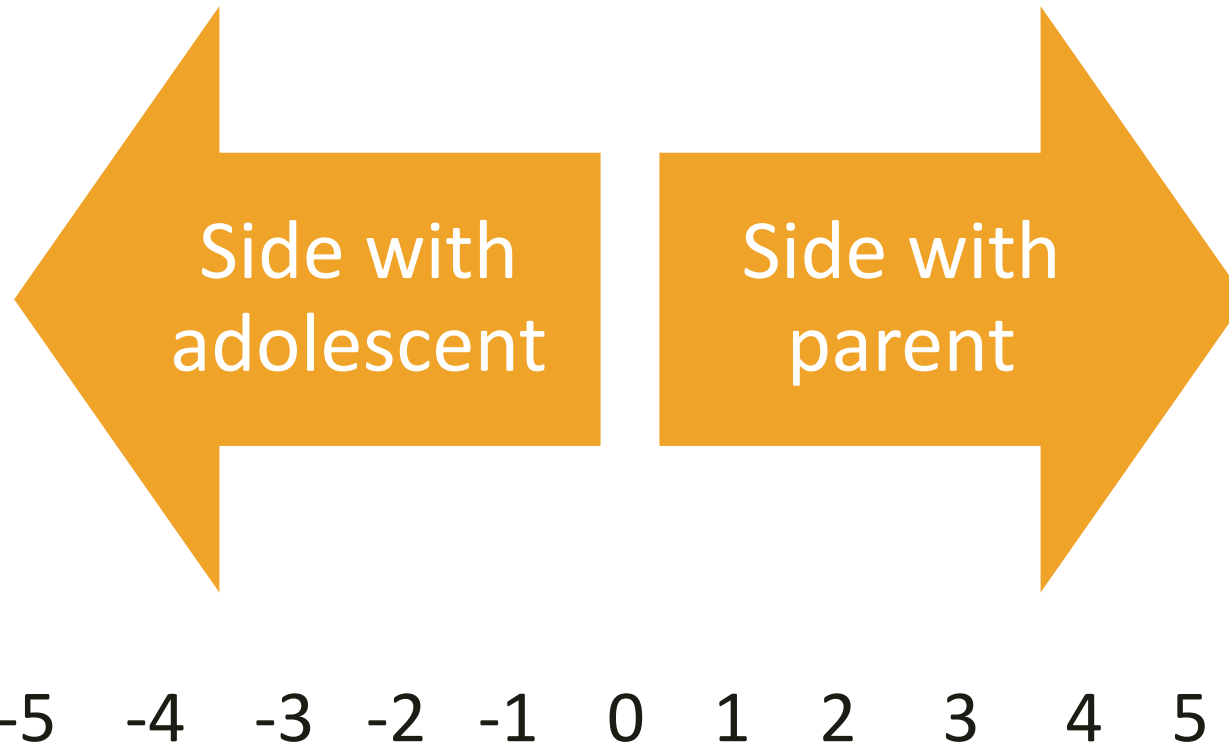
## A Motivational Enhancement Approach

- Unconditional positive regard
- Being a privileged witness to change
- Accurate empathy, acceptance, absolute worth, autonomy
- Do Justly, love mercy, walk humbly

# Attention to Our Biases



# Balancing Empathy



---

# So, what might incorporating a multigenerational approach look like?

## Early on:

- Know what symptoms might occur in families affected by SUD
- Know the benefit of early intervention and prevention
- Get comfortable asking about it
- Be familiar with community resources
  - School, youth groups, other family and friends,
- Know state and national resources
- Include appropriate screening at every visit with both parents and children
- Empathically express concern and support

---

# Asking Good Questions

## For Adults

- Have you ever wondered about the impact substance use has had on others in your family?
- What does your family know about your difficulty with substance use? Would you like help deciding when and how to share?
- Have you spoken with your children about the risks of substance use? Would you like help getting ready to do that?

## For Children

- Have you ever worried about someone in your family who is drinking alcohol or using drugs?
- What would be the pros and cons up your parents being aware of your substance use? What do you imagine it would look like?

---

# So, what might incorporating a multigenerational approach look like?

## Later

- Seek support and share the emphasis with colleagues and other members of the clinical staff
- Teach about the impacts
- Evaluate current resources available to the family
- Determine when and whom to invite into the family-based treatment plan
- Acquire knowledge about medical and behavioral treatment of substance use disorders for any member of the family
- Appropriately use consultation and community resources and lead a coordinated effort amongst a team of providers
- Provide availability for follow up and monitoring

# Current UVM Pilot Study

## Decreasing Transgenerational Perpetuation of Substance Use Disorders

- Parents with a SUD at least in early remission
- Children ages 12-21
- Co-parents if amenable
- 9 session curriculum
- Family wellness measure pre and post, at 6 months
- Parent symptom inventory
- Child symptom inventory
- Attitudes about substance use questionnaire pre and post



# Current UVM Pilot Study

## Decreasing Transgenerational Perpetuation of Substance Use Disorders

- Creating a family genogram, “the family tree”
- Creating a parent narrative about impact of SUD
- Creating a child narrative about impact of SUD
- Strengthening capacity for communication
- Combining narratives
- Understanding addiction and decreasing stigma
- Understanding developmental impacts of SUD
- Focus on resilience

---

## Challenging Questions

- Is it “fair” to the parent’s privacy to suggest that they disclose their SUD to their child?
- What is the difference between privacy and secrecy?
- Is it tolerable or safe for a child to know about parental SUD? Can they handle it?
- Does thinking about the next generation take away your focus on the individual?
- Would thinking about the impact on the next generation inspire a parent to make change? Or increase guilt and shame?
- Do you have to have dual training to take a multigenerational approach?
- What stage of parent recovery is the right time to include younger generations?
- Which families will benefit most from this approach?

**There's no time like the present**

---

## Conclusion/Clinical Pearls

- Parent voice about substance use matters, even if and maybe especially if they themselves have struggled or are struggling with SUD
- Balanced family narratives that include struggle, striving and overcoming are healthy for children
- If it's mentionable it's manageable
- We have opportunities for prevention, no matter who we're working with. Thinking in a cyclical way may open our eyes to these opportunities.
- Prevention and treatment are not mutually exclusive

---

## Resources

- AACAP facts for families
- SAMHSA.gov/parent resources
- [www.drugabuse.gov](http://www.drugabuse.gov)
- <https://teens.drugabuse.gov>
- [www.niaaa.nih.gov](http://www.niaaa.nih.gov)
- [www.nida.nih.gov](http://www.nida.nih.gov)
- [Monitoringthefuture.org](http://Monitoringthefuture.org)
- [www.nacoa.org](http://www.nacoa.org) (National Association for Children of Addiction)
- [www.al-anon.org](http://www.al-anon.org)
- [www.alateen.org](http://www.alateen.org)

# Questions?

[peter.Jackson@uvmhealth.org](mailto:peter.Jackson@uvmhealth.org) or [cora@uvm.edu](mailto:cora@uvm.edu)



JOINTLY ACCREDITED PROVIDER™  
INTERPROFESSIONAL CONTINUING EDUCATION

## Interested in CE/CME credits?

Please email [cora@uvm.edu](mailto:cora@uvm.edu) for instructions to claim your credits  
or visit [highmarksce.com/uvmmed/](https://highmarksce.com/uvmmed/)



# Center on Rural Addiction

UNIVERSITY OF VERMONT



Thank you for participating in this  
Community Rounds Workshop Series

**Our next session will be held on December 9, 2020 from 12-1pm  
“Smartphone-based Financial Incentives to Promote  
Smoking Cessation Among Pregnant Women”**

**Allison Kurti, *PhD***

Register now <http://rb.gy/9qk324>





Center on  
Rural Addiction  
UNIVERSITY OF VERMONT

Learn more: [UVMCORA.ORG](https://uvmcora.org)

Contact us: [CORA@uvm.edu](mailto:CORA@uvm.edu)

---

# References

- Biederman, J., Faraone, S. V., Monuteaux, M. C., & Feighner, J. A. (2000). Patterns of Alcohol and Drug Use in Adolescents Can Be Predicted by Parental Substance Use Disorders. *Pediatrics*, *106*(4), 792–797.
- Bisetto Pons, D., González Barrón, R., & Botella Guijarro, Á. (2016). Family-Based Intervention Program for Parents of Substance-Abusing Youth and Adolescents. *Journal of Addiction*, 2016. <https://doi.org/10.1155/2016/4320720>
- Bohanek, J. G., Marin, K. A., Fivush, R., & Duke, M. P. (2006). Family Narrative Interaction and Children’s Sense of Self. *Family Process*, *45*(1), 39–54. <https://doi.org/10.1111/j.1545-5300.2006.00079.x>
- Brook, J., McDonald, T. P., Gregoire, T., Press, A., & Hindman, B. (2010). Parental Substance Abuse and Family Reunification. *Journal of Social Work Practice in the Addictions*, *10*(4), 393–412. <https://doi.org/10.1080/1533256X.2010.521078>
- Baer JS, Barr HM, Bookstein FL, Sampson PD, Streissguth AP. Prenatal alcohol exposure and family history of alcoholism in the etiology of adolescent alcohol problems. *J Stud Alcohol*. 1998;*59*(5):533-543.
- Cleveland M, Feinberg M, Osgood D et al, Do peers' parents matter? A new link between positive parenting and adolescent substance use. *J Stud Alcohol Drugs*. 2012 May;*73*(3):423-33.
- Dishion T, Nelson S, Kavanagh K. The family check-up with high-risk adolescents: Preventing early-onset substance use by parent monitoring. *Behav Ther*.2003;*34*(4):553-571
- Douglas K, Chan, G, Gelernter J. Adverse childhood events as risk factors for substance dependence: partial mediation by mood and anxiety disorders *Addict. Behav*. 2010 Jan; *35*(1): 7-13

---

# References

- Dube S, Felitti V, Dong M, et al. Childhood abuse, neglect and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics*. 2003 Mar; 111(3):564-72.
- Ebersole D, Miller-Day, M Raup Krieger J, Do actions speak louder than words?: Adolescent Interpretations of parental substance use. *J Fam Commun*. 2014 Jan 1; 14(4): 328-351.
- Ellis, B. J., Giudice, M. D., Dishion, T. J., Figueredo, A. J., Gray, P., Griskevicius, V., Hawley, P. H., Jacobs, W. J., Volk, A. A., Wilson, D. S., Ellis, B. J., & Norton, D. (2012). *The evolutionary basis of risky adolescent behavior: Implications for science, policy, and practice*.
- Geidd J The Amazing Teenage Brain. *Scientific American* **312**, 32 - 37 (2015)
- Jackson, P. R. (2019). A Transgenerational Perspective on Prevention and Treatment of Adolescent Substance Use Disorders. *Journal of Child and Adolescent Psychopharmacology*, 29(7), 477–478.
- Kirby K, Versek B, Kerwin M et al. Developing Community Reinforcement and Family Training (CRAFT) for Parents of Treatment-Resistant Adolescents. *Child Adolesc Subst Abuse*. 2015 May 4; 24(3): 155–165.
- Kendler K, Ohlsson H, Sundquist J, Triparental families: a new genetic-epidemiological design applied to drug abuse, alcohol use disorders, and criminal behavior in a Swedish national sample. *Am J Psychiatry*. 2015 Jun 1; 172(6): 553–560

---

## References

- Kumpfer KL, Alvarado R, Whiteside HO. Family-based interventions for substance use and misuse prevention. *Subst Use Misuse*. 2003;38(11-13):1759-1787. doi:10.1081/ja-120024240
- Lester, P., Rauch, P., Loucks, L., Sornborger, J., Ohye, B., & Karnik, N. S. (2017). Posttraumatic Stress Disorder and Military-Connected Families: The Relevance of a Family-Centered Approach. *Focus: Journal of Life Long Learning in Psychiatry*, 15(4), 420–428. <https://doi.org/10.1176/appi.focus.20170027>
- Minnes S, Min M, Kim J et al. The association of prenatal cocaine exposure, externalizing behavior and adolescent substance use. *Drug Alcohol Depend*. 2017 Jul 1;176:33-43.
- Mrug S, McKay R, Parental and Peer Disapproval of Alcohol Use and its Relationship to Adolescent Drinking: Age, Gender, and Racial Differences *Psychol Addict Behav*. 2013 Sep; 27(3):604-614
- O'Brien JW, Hill SY. Effects of Prenatal Alcohol and Cigarette Exposure on Offspring Substance Use in Multiplex, Alcohol-Dependent Families. *Alcohol Clin Exp Res*. 2014;38(12):2952-2961.
- O'Connor E, Thomas R, Senger CA, Perdue L, Robalino S, Patnode C. Interventions to Prevent Illicit and Nonmedical Drug Use in Children, Adolescents, and Young Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. *JAMA*. 2020;323(20):2067–2079.
- Olsson CA, Coffey C, Toumbourou JW, Bond L, Thomas L, Patton G. Family risk factors for cannabis use: a population-based survey of Australian secondary school students. *Drug Alcohol Rev*. 2003;22(2):143-152. doi:10.1080/09595230100100570

---

# References

- O'Loughlin JL, Dugas EN, O'Loughlin EK, et al. Parental Cannabis Use Is Associated with Cannabis Initiation and Use in Offspring. *J Pediatr*. 2019;206:142-147.e1. doi:10.1016/j.jpeds.2018.10.057
- Porath AJ, Fried PA. Effects of prenatal cigarette and marijuana exposure on drug use among offspring. *Neurotoxicol Teratol*. 2005;27(2):267-277.
- Roizen, H. G., Waart, R. D., & Kroft, P. V. D. (2010). Community reinforcement and family training: An effective option to engage treatment-resistant substance-abusing individuals in treatment. *Addiction*, 105(10), 1729–1738.
- Saltzman, W. R., Pynoos, R. S., Lester, P., Layne, C. M., & Beardslee, W. R. (2013). Enhancing family resilience through family narrative co-construction. *Clinical Child and Family Psychology Review*, 16(3), 294–310. <https://doi.org/10.1007/s10567-013-0142-2>
- Shakya H, Christakis N, Fowler J. Parental Influence on Substance Use in Adolescent Social Networks. *Arch Pediatr Adolesc Med*. 2012 Dec; 166(12): 1132-1139.
- Suchman, N. E., DeCoste, C. L., McMahon, T. J., Dalton, R., Mayes, L. C., & Borelli, J. (2017). Mothering from the Inside Out: Results of a second randomized clinical trial testing a mentalization-based intervention for mothers in addiction treatment. *Development and Psychopathology*, 29(2), 617–636. <https://doi.org/10.1017/S0954579417000220>
- Vassoler, F. M., Byrnes, E. M., & Pierce, R. C. (2014). The Impact of Exposure to Addictive Drugs on Future Generations: Physiological and Behavioral Effects. *Neuropharmacology*, 76(0 0).