Interdisciplinary Approaches to Outpatient Addiction Treatment for Vulnerable Youth

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Learning Objectives

1. Review evidence-based practices for engaging adolescents and young adults in substance use disorder (SUD) treatment.
2. Introduce models for embedding adolescent and young adult SUD treatment into primary care settings and examine the CAYRE model.
3. Understand the role of interdisciplinary care in adolescent and young adult SUD treatment.
4. Identify best practices for engaging community partners to improve screening and referrals for vulnerable populations of justice-involved and insecurely housed youth.
5. Examine patient cases with an interdisciplinary lens and identify strategies to deliver evidence-based care to patients with social and physical complexity.

Poll Question 1

- **To what extent do you care for adolescents in your current scope of practice?**
  A. Always
  B. Sometimes
  C. Rarely
  D. Never

Poll Question 2

- **To what extent do you feel comfortable providing substance use disorder treatment to adolescents and young adults?**
  A. Very comfortable
  B. Somewhat comfortable
  C. Slightly comfortable
  D. Slightly uncomfortable
  E. Somewhat uncomfortable
  F. Very uncomfortable

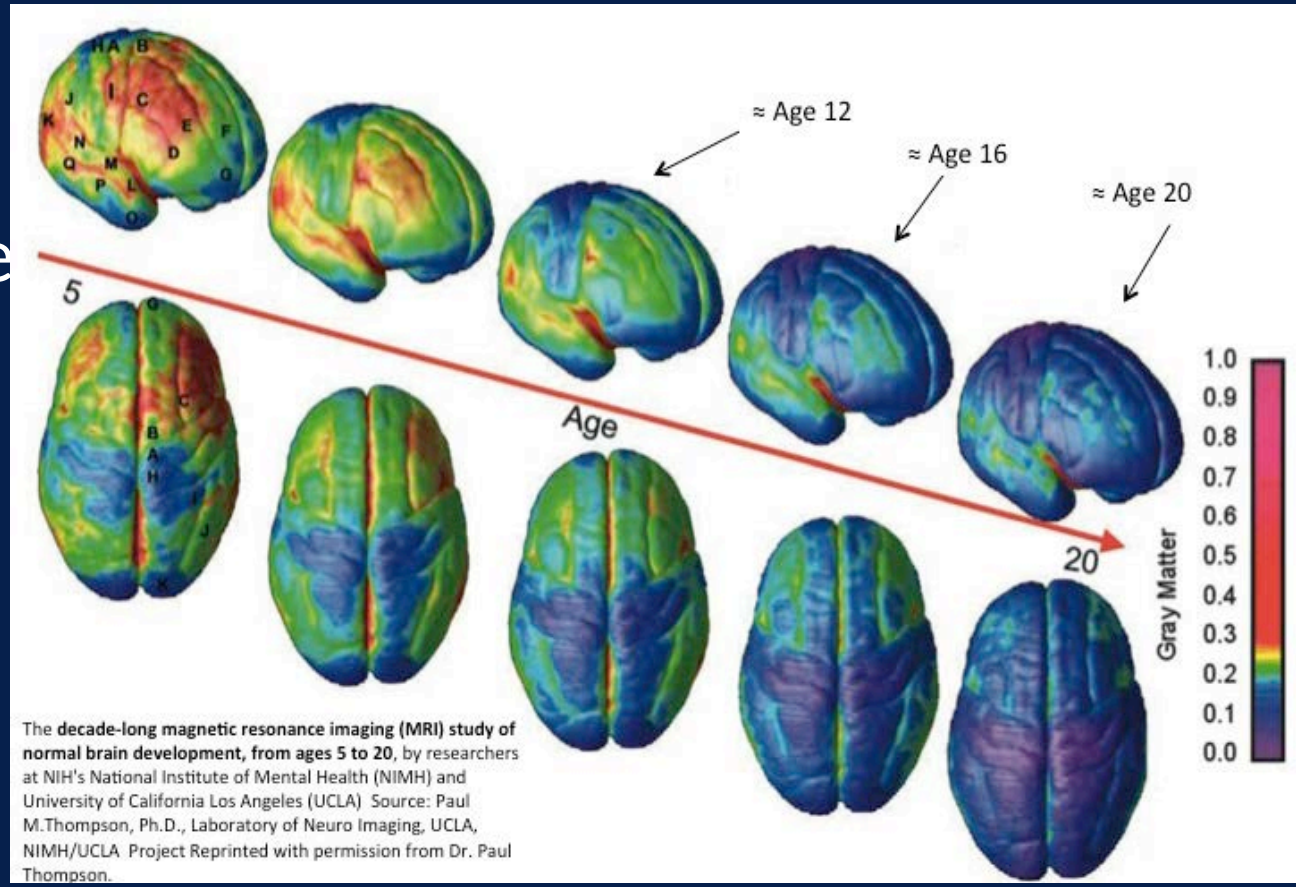
Poll Question 3

- **My greatest concern or fear when caring for adolescents is:**
  - A. Navigating confidentiality and consent
  - B. Not knowing what treatment strategies and medications are safe and effective
  - C. Fear of a poor outcome in a young person
  - D. Managing involvement of parents and families
  - E. Lack of age-appropriate support services
  - F. Something else

What is unique about treating adolescents?

Adolescents and young adults (AYA) are particularly vulnerable to effects from substance use

- The developmentally immature brain of AYA is:
  - More sensitive to substance use effects
  - Less able to regulate substance use behaviors
- Early exposure to substances is associated with increased risk for addiction and long-term use

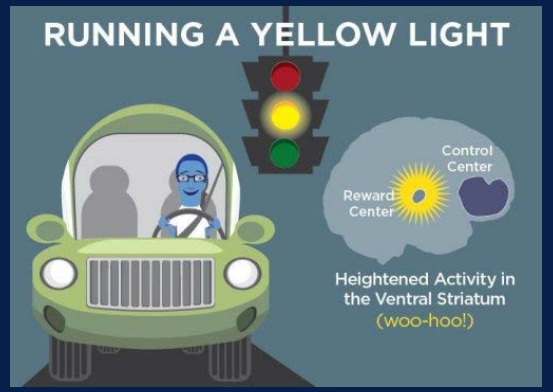


The **decade-long magnetic resonance imaging (MRI) study of normal brain development, from ages 5 to 20**, by researchers at NIH's National Institute of Mental Health (NIMH) and University of California Los Angeles (UCLA) Source: Paul M.Thompson, Ph.D., Laboratory of Neuro Imaging, UCLA, NIMH/UCLA Project Reprinted with permission from Dr. Paul Thompson.

Figure from: https://teens.drugabuse.gov/blog/post/teen-brain-work-progress

Squeglia, et al, 2011; Winters & Arria; 2011

If the adolescent brain were a car….



- **Fully functioning gas pedal**
  - Amygdala: Process feelings of reward and pain. Matures early.
  - Appreciate salience of substance use related rewards
- **Weak brakes**
  - Prefrontal cortex—assess situations, make decisions, control impulses, weigh consequences, plans
  - Limited ability to reason through consequences associated with substance use **End result?**
  - Pursue pleasurable rewards, avoid painful stimuli, little thought of consequences

Squeglia, et al, 2011; Winters & Arria; 2011

Adolescence and young adulthood characterized by rapid changes

- Period of rapid changes/development in variety of domains
- Early adolescence characterized by concrete, egocentric thoughts, middle adolescence characterized by growing push for independence and risk-taking, and late adolescence characterized by refinement of more abstract and logical thought
- Requires a nuanced understanding of development for history-taking, treatment plans, and engagement

Neinstein, et al, 2016

Family provides a complex treatment partner

- Family involvement can lead to improved adolescent treatment outcomes
  - Increased adherence to treatment
  - Longer duration of abstinence from substance use
- Reduction of family conflict

Steinglass, 2009; Liddle, 2004; Kumpfer, 2003

Family provides a complex treatment partner

- Adolescent treatment linked to caregiver health
  - Can lead to improved caregiver mental health
  - Caregivers may struggle with own SUD or MH impacting their ability to participate in treatment
- Families with limited understanding of disease model of addiction
  - Enact stigma
  - Denigrate evidence-based therapies

Copello, 2005; Liddle, 2004; Smith, 2004

Barriers Adolescents Face in Accessing Treatment

- Adolescents are the most undertreated age group
  - Less likely to receive substance use disorder diagnoses
  - Less likely to be referred for sub-specialty care
  - Less likely to receive evidence-based pharmacotherapy
- 26.0% of U.S. addiction treatment facilities offer treatment to adolescents
  - Half as likely to offer evidence-based pharmacotherapy as adult facilities
  - Not always equipped to meet unique developmental, social, and behavioral health needs
- Social and developmental barriers to accessing treatment

Alinsky et al. 2020; Camenga et al. 2019

What are evidence-based practices?

Adolescents should be screened systematically for substance use.

CLINICAL REPORT Guidance for the Clinician in Rendering Pediatric Care

American Academy of Pediatrics

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Substance Use Screening, Brief Intervention, and Referral to Treatment

Sharon J.L. Levy, MD, MPH, FAAP, Janet F. Williams, MD, FAAP, COMMITTEE ON SUBSTANCE USE AND PREVENTION

Levy, 2016

Use screening instruments not clinical impression

	Medical Provider Impressions	
	Sensitivity	Specificity
Any use	.63 (.58, .69 CI)	.81 (.76, .85 CI)
Any problem	.14 (.10, .20 CI)	1.0 (.99, 1.0 CI)
Any disorder	.10 (0.4, .17 CI)	1.0 (.99, 1.0 CI)
Dependence	0	1.0

While providers may recognize the majority of kids who use alcohol/drugs, very LOW sensitivity for those with problematic use.

Wilson CR, et al., 2004.

Implement Evidence-Based Screening for Adolescents

Screening Tool	Screens for			Administration Method		Time (min)	# Items
	Alcohol	Tobacco	Drugs	Self	Provider		
S2BI (Screening to Brief Intervention)	x	x	x	x	x	5	3-7
BSTAD (Brief Screener for Tobacco, Alcohol, and Other Drugs)	x	x	x	x	x	5-10	3-11
NIAAA Youth Alcohol Screen (Youth Guide)	x			x	x	<5	2
CRAFFT (Car, Relax, Alone, Friends/Family, Forget, Trouble)	x		x	x	x	5	9

Prescribe Evidence-Based Pharmacotherapy for Adolescents

- Decreases overdose-related and all-cause mortality
- MOUD safe and effective for adolescents
  - AAP supports Pediatricians prescribing MOUD
  - Buprenorphine is safe and effective for youth
    - FDA approved for 16+ with OUD
    - Significantly more effective than Clonidine
  - Limited studies available support use of Methadone
    - Barriers: guardian consent, only available to adolescents in some states, limited dosing data
  - Observational/pilot trials support that injectable Naltrexone is effective
- Early evidence of safety and efficacy of MAUD in adolescents
  - Pilot studies support use of Naltrexone
  - RCT evidence supports use of Disulfiram

Hammond, 2016; Borodovsky et al. 2018; Camenga et al. 2019; Deas, 2008

Use Evidence-Based Behavioral Health Approaches for Adolescents

- Behavior/Psychosocial Interventions
  - Family Based Interventions
  - Group Interventions (SMART Recovery, AA, NA)
  - Behavioral Therapy
  - Cognitive- Behavioral Therapy
  - Motivational Enhancement Therapy
  - Community Reinforcement Therapy
  - Mindfulness and DBT skills
  - Motivational Interviewing

Riggs PD, 2003; Marcus MT, Zgrieska A, 2009; Barnett et al. 2012

Tailor Treatment to Where Youth Are

- Use motivational interviewing and non-judgmental techniques to connect with youth and families
- Recognize developmental stage and tailor interview and treatment to stage of development
- Utilize strengths-based approach
  - Leverage their skills and strengths
  - Utilize family or community supports

Meet the Developmental Needs of Youth

- Need for additional support, structure, and affirmation

- Teen-friendly motivational interviewing strategies
  - Frequent affirmations
  - Support self-confidence that they can change
  - “Rolling with resistance”
  - Ask permission before giving advice or education

Meet the Developmental Needs of Youth: Role of Parents and Families

- Educate families on:
  - Addiction as a disease not moral failing
  - Reducing risks from use
    - Family-based overdose prevention education
    - Safe storage and disposal of medications
- Discuss role of family—addiction as a family disease
  - All members of family can be impacted
  - Seek their own mental health or addiction treatment
  - Prioritize self-care

Engage Families as Part of Routine Care

- Explain the family can inadvertently sustain or reinforce both substance use and recovery behaviors
- Counsel about therapeutic and medical options
  - Review evidence-base for treatment decisions
- Family-based interventions
  - Family therapy models have been tested over the past three decades – now considered an efficacious treatment approach for adolescents
  - Multidimensional family therapy
  - Group cognitive behavioral therapy

Hogue A, Liddle HA, 2009

Leverage Family for Treatment

- Community Reinforcement and Family Training (CRAFT)
- Based on the Community Reinforcement Approach (CRA), which aims to help patients with SUDs to replace substance use with healthier behaviors through positive reinforcement
- Can be a useful tool for youth who are not interested in engaging in treatment
- Teaches families to use lay motivational interviewing and behavioral reinforcement techniques

Meyers, 2011

CRAFT

- Shown to promote engagement in treatment in up to 2/3 of treatment-resistant people
- Enhances happiness of concerned significant others (i.e. family members)

Meyers, 2011

Table CRA, A-CRA, and CRAFT Studies

Year	First author	Type of substance	*N*	Population	Control group	Setting	Exp. intervention	Outcome
CRA								
1973	Hunt	Alcohol	16	Adults	Yes	inpatient	CRA	+
1976	Azrin	Alcohol	18	Adults	Yes	inpatient	CRA	+
1982	Azrin	Alcohol	43	Adults	Yes	outpatient	CRA	+
1998	Smith	Alcohol	106	Adults	Yes	outpatient	CRA	+
1994	Azrin	Drugs	26	Youth	Yes	outpatient	CRA	+
1998	Abbott	Opioids	166	Adults	Yes	outpatient	CRA	+
2000	Schottenfeld	Opioids & Cocaine	117	Adults	Yes	outpatient	CRA	=
2000	Kalman	Alcohol	149	Adults	Yes	outpatient	CRA	=
2001	Miller	Alcohol	237	Adults	Yes	outpatient	CRA	+
2001	Azrin	Drugs	56	Youth	Yes	outpatient	CRA	+
2003	Roozen	Opioids	24	Adults	No	outpatient	CRA	NA
2006	Roozen	Tobacco	25	Adults	Yes	outpatient	CRA	=
2007	De Jong	Opioids	272	Adults	No	outpatient	CRA	NA
CRA and Vouchers								
1991	Budney	Cocaine	2	Adults	No	outpatient	CRA & Vouchers	NA
1991	Higgins	Cocaine	25	Adults	Yes	outpatient	CRA & Vouchers	+
1993	Higgins	Cocaine	38	Adults	Yes	outpatient	CRA & Vouchers	+
1994	Higgins	Cocaine	40	Adults	Yes	outpatient	CRA & Vouchers	NA
1997	Bickel	Opioids	39	Adults	Yes	outpatient	CRA & Vouchers	+
2003	Higgins	Cocaine	100	Adults	Yes	outpatient	CRA & Vouchers	+
2008	Secades-Villa	Cocaine	43	Adults	Yes	outpatient	CRA & Vouchers	+
2008	Bickel	Opioids	135	Adults	Yes	outpatient	CRA & Vouchers	+
2008	DeFuentes-Merillas	Opioids & Cocaine	66	Adults	Yes	outpatient	CRA & Vouchers	+
2009	Garcia-Rodriquez	Cocaine	96	Adults	Yes	outpatient	CRA & Vouchers	+
A-CRA								
2002	Godley	Alcohol & Drugs	114	Youth	Yes	outpatient	A-CRA	+
2004	Dennis	Drugs	300	Youth	Yes	outpatient	A-CRA	=
2007	Slesnick	Alcohol & Drugs	180	Youth	Yes	outpatient	A-CRA	+
CRAFT								
1986	Sisson	Alcohol	12	Adults	Yes	outpatient	CRAFT	+
1999	Meyers	Drugs	62	Adults	No	outpatient	CRAFT	NA
1999	Miller	Alcohol	130	Adults	Yes	outpatient	CRAFT	+
1999	Kirby	Drugs	32	Adults	Yes	outpatient	CRAFT	+
2002	Meyers	Drugs	90	Adults	Yes	outpatient	CRAFT	+
2007	Waldron	Drugs	42	Adolescents	No	outpatient	CRAFT	NA
2009	Dutcher	Alcohol	99	Adults	No	outpatient	CRAFT	NA

NOTE: The studies included are considered unique published studies and are available in electronic databases such as PubMed and PsychInfo. The effects of each study are appraised as +, statistically significant effect in favor of the experimental condition; =, no statistically significant difference detected; and NA, Not Applicable.

Meeting the Developmental Needs of Youth: Role of Peers

- Peer Navigators
- Peer Groups
  - Commonly used
    - Group intervention is the most commonly used treatment modality for adolescents with substance use disorders (SUD).
  - Preferred option
    - One meta-analysis found 80% of adolescents selected the group format over an individual or even a web-site activity.

Kaminer Y, 2005; Kelly et al. 2010.

Recognize Important Role of Consent and Confidentiality

- Confidentiality
- Mandatory Reporting
- Consent to treatment

Integrate understanding about trauma into clinical approach

- Adverse Childhood Experiences (e.g. childhood abuse, neglect, or significant household stressors) are strongly associated with SUD
  - Those with 4+ ACEs have a 4- to 12-fold increased risk of SUD
  - Those with SUD have an increased risk of experiencing trauma and violence
- Trauma and PTSD associated with worse SUD treatment outcomes

Felitti et al. 1998; Taylor et al. 2017

Integrate understanding about trauma into clinical approach

- Tenets of Trauma Informed Care for Adolescents:

1. **CONFIDENTIALITY**: Limits of confidentiality should be discussed before any conversation that may prompt disclosure
2. **TRUSTWORTHINESS**: Offer yourself as a safe person who cares about their wellbeing and understands that trauma and home factors outside of their control can impact their health
3. **EMPOWERMENT AND CHOICE**: Clearly state that disclosure is NOT a prerequisite to receive treatment or resources
4. **HEALING-CENTERED ENGAGEMENT**: Offer resources universally regardless of disclosure

Integrate a Harm Reduction Lens

- Able to be contextually relevant and responsive to the lived experiences of youth
  - Does not minimize or ignore the harms associated with drug use
  - Places focus on reducing morbidity and mortality
- Applies **evidence-based interventions** to reduce negative consequences of behaviors
- Congruent with adolescent development and decision-making skills
  - Locus of control with adolescent

Models of AYA SUD Treatment

- Interdisciplinary team
  - Physicians: pediatrics, adolescent medicine, addiction medicine, psychiatry
  - Licensed social workers
  - Nursing support
  - +/- Recovery coaches
- Integration with other health care services
  - Consultative services vs. Inclusive general medical services
  - Multimodal care plan: therapy + pharmacotherapy
  - Medical management: STI screening, family planning
- Family involvement encouraged

THE CAYRE MODEL

- Embedded in adolescent and young adult primary care
- Adolescent-friendly environment
- Integrated behavioral health
- Community partnerships as a cornerstone of CAYRE

The CAYRE Model

- Embedded in adolescent and young adult primary care
  - Family planning
  - STI screening and treatment
  - Pre-exposure prophylaxis prescribing
  - Gender Care
  - Comprehensive primary and reproductive health care

The CAYRE Model

- Adolescent-friendly environment
  - Reduced stigma
  - Affirming to gender-diverse youth
  - Commitment to antiracist practices

Interdisciplinary Care at CAYRE Clinic

- Outpatient care includes medical and behavioral health interventions
- Medical Services:
  - MAUD
  - MOUD
  - Nicotine replacement therapy
  - Pharmacotherapy for smoking cessation
  - Psychiatric interventions (medication management and/or Psychiatry consult)
  - Evaluation for complications of use
  - Health education
  - Referrals
- Behavioral Health Services:
  - Mood/risk/safety assessment
  - Psychoeducation
  - Drug and alcohol counseling
  - Evidence-based counseling methods: MI, MET, CBT, mindfulness, and DBT skills

Interdisciplinary Care at CAYRE Clinic

- Collaboration on Level of Care Assessments and referrals
  - Assess medical needs, behavioral health needs, and community needs
  - Connect patient to higher level of care if needed

- At CAYRE Clinic, we work with patients to help connect with groups that are of interest to them in the community, from our referral map of groups. Many are in online format. Some psychoeducation on different group modalities is often needed.

Interdisciplinary Framework

FIRST STEP

Patient is referred via dedicated phone line, monitored by CAYRE behavioral health team

Pre screening questions to ensure patient is appropriate for outpatient treatment and ensure no immediate safety concerns

Patient scheduled for dual medical and counseling appointments

Reminder call from behavioral health team, pro-actively address transportation concerns and other barriers

ARRIVE HERE

Patient arrives to CAYRE clinic!

Interdisciplinary Framework

Patient evaluated by medical provider, parent may join for *some* of visit depending on the developmental needs of the patient

Patient seen by behavioral health provider
Parent(s) meet with behavioral health separately, if indicated

Medical and behavioral health providers meet to share information and develop treatment recommendations

Team shares assessment and recommendations with patient (+/- parents at patient's discretion)
Shared decision making is used to develop treatment plan and follow-up plan

Strengths and Challenges of CAYRE Model

Strengths

- Warm referrals from community partners
- Continuity of care from initial phone contact
- Many layers of support (more people “on their team”)
- Many opportunities for engagement
- Embedded in general adolescent health reduces stigma and improves access
- Adolescent friendly environment
- Integrated behavioral health aids in escalation of care when needed
- Behavioral health team members have increased availability to provide support outside of dedicated CAYRE clinic sessions

Strengths and Challenges of CAYRE Model

Challenges

- Social distancing can come with communication and technical difficulties
- Patients may sometimes tell different team members different information, highlighting need for communication
- Some youth have chaotic lives that makes it difficult to attend scheduled appointments and maintain engagement

Reaching Justice-Involved Youth

Why is it important?

- 4.5% of all U.S. youth are involved in the juvenile justice system
  - > 1,000,000 youth become involved per year
- As many as 68% meet SUD criteria
  - 2019 meta-analysis found that only 28% are treated
- Treatment reduces recidivism and post-incarceration overdose deaths

Winkelman et al. 2017; Heaton, 2018; White et al. 2019; Hoeve et al. 2013; Green et al. 2018

Reaching Justice-Involved Youth

Partnership between CAYRE and Juvenile Detention Center:

- Multiple CAYRE providers also work at the detention center
- Warm hand-off from provider detecting positive SUD screening to CAYRE provider
- On-site CAYRE intake and scheduling for detained youth
- Collaboration with parole officers and child advocacy services

Reaching Justice-Involved Youth

Challenges in Facilitating Care:

- Court-determined placements
- Unpredictable/sudden release from detention
- Distrust of providers who youth associate with the detention system
- Avoiding coercion – youth can decline CAYRE services
- Detained youth may have chaotic lives, lack of adult support, limited transportation

Reaching Unstably Housed Youth

Why is it important?

- 3% of adolescents 13-17 years experience homelessness
- 5% of young adults 18-25 years experience homelessness
- Substance use disproportionately affects unstably housed youth
  - Substance use is 2-3x higher than non-homeless youth
  - Mortality rates are 10x those of the general adolescent population, with overdose as a leading cause
  - Younger age of onset of homelessness is associated with increased drug use
- Homeless youth may use substances for various reasons
  - Coping, numbing, escape, prevent victimization

Morton et al 2018; Bender et al 2014; Roy et al 2004;Santa Maria et al 2018; Gomez et al 2010

Reaching Unstably Housed Youth

- Drop-in Youth Center Partnership
  - “one stop center” that provides medical care, education, life skills and housing support
  - Model: satellite CAYRE clinic provided by a CAYRE medical provider
    - Building a partnership with onsite behavioral health team for a multidisciplinary approach
    - Working closely with trusted onsite nurse
    - Collaborating with youth coaches
- COVID-related barriers
  - Decreased socialization
  - Telehealth
  - Limitations on drop-in visits

Case 1

Tiffany is a 17 year-old woman referred to your clinic after her third ED encounter for heroin overdose. Her partner, with whom she is living, very reluctantly left the room during your first appt with her. Even though you were able to establish good rapport with her and she seemed motivated in starting buprenorphine, she has missed her last three appointments. Every time you try to reach her by phone, it appears that someone is picking up the phone and then hanging up.

Questions to consider

- What are your concerns regarding Tiffany's situation and her barriers to care?
- How would you approach a conversation with her about your concerns?

Case 2

You are a new Addiction Medicine attending at a children's hospital starting a clinic for young people with substance use disorders. There is concern by many of the staff and clinicians about "the type of patients" who will be using the clinic and "standing in the elevators, eating in the cafeteria with little kids." One of your colleagues, with whom you have maintained a good relationship confides that she is nervous about bringing her own child for outpatient care now because "of the addicts that will come in because of the clinic."

- How do you address the concerns of your colleague? What might be sources of bias and/or uneasiness from other practitioners?
- How do you address the concerns by clinicians/staff regarding patient experiences?
- What types of training have you seen as effective for addressing bias around SUD? What might be some ways to implement this training?

Case 3

You are seeing a patient referred from a colleague's gender clinic for an initial visit at your institution's new adolescent and young adult clinic. The patient identifies as non-binary, using they/them pronouns. When you enter the room, you note that the patient appears markedly upset and looks away when you introduce yourself. When you ask what happened, they report that the staff called them by the wrong name and pronouns. When you apologize on their behalf, they then tell you, "I did not want this stupid appointment. But I have to quit smoking marijuana to get top surgery."

- What are some ways you or your colleagues have been able to build rapport with a patient who is not enthusiastic about coming to your clinic? (i.e. what might be some ways of turning "I have to.." into "I want to...")

- How would you make your own clinical space more inclusive of gender non-conforming patients?

Case 4

You are a med-peds resident on your first day in the adolescent and young adult substance use clinic. You are apprehensive about meeting your first patient--a 16 year old named Akshay (he/his pronouns).

You review Akshay's chart to learn that he and his family entered as refugees 2 years ago, and he started drinking alcohol and trying Percocets as a means to make friends when he did not know the language. He was referred to the clinic after an inpatient hospitalization for alcoholic intoxication, where he was reporting auditory and visual hallucinations. You see him in the waiting room by himself and introduce yourself. He barely makes eye contact before he shrugs and follows you into the patient room.

- What might be some ways to engage this patient?
- What does an AYA patient with their parents indicate to you as a provider? What about patients who come alone? Does it impact the way you may make a plan for this particular patient? Why or why not?
- What would you want to know about Akshay's relationship with his family? Why might that dictate clinical care?
- What wrap-around services may be particularly helpful for this patient and his family to ensure success?

Final Takeaways/Summary

- Adolescents and young adults are a special population with unique treatment needs
- Providers should incorporate evidence-based pharmacotherapy at time of diagnosis if applicable
- Use evidence-based behavioral health approaches targeting the unique developmental needs of adolescents and young adults
- Recognize the important role of consent and confidentiality for this age group and the nuanced roles that families can play in supporting treatment
- Integrate a trauma-informed and harm reduction lens into clinical care and treatment decision-making

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