Feasibility and Acceptability of Group Community Reinforcement and Family Training (CRAFT)

for Caregivers of Adolescents and Young Adults with Substance Use Disorders

Alison Giovanelli, PhD, LP

PARC Lunchtime Seminar

September 25th, 2024

Study Team

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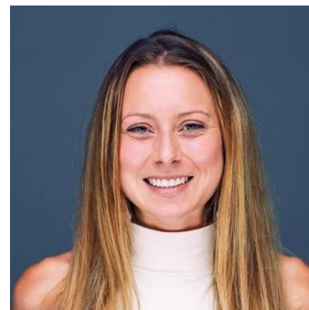

Clinical Research Coordinator

Background

Background

Adolescent and Young Adult Substance Use Disorders

- Most people who use substances initiate use before age 25
  - Substance use (SU) in adolescence and young adulthood (AYA) has developmental and psychiatric consequences
- Strong evidence base for family-based approaches to treating AYA SU
  - It is crucial to engage youth and their families in comprehensive SU treatment and prevention

Background

UCSF Youth Outpatient Substance Use Program (YoSUP)

- Department of Pediatrics – Division of Adolescent and Young Adult Medicine
- Evidence-based, developmentally appropriate, family-centered outpatient (ASAM Level 1) SUD treatment
  - Youth are required to submit Urine Drug Screens and attend follow-up appointments
    - **Challenge:** Youth treatment engagement

Background

Community Reinforcement and Family Training (CRAFT)

- Approach developed for use with Concerned Significant Others (CSOs) of treatment-resistant adults with SUDs
  - CSOs taught to adjust environmental contingencies and communication with their loved one while also setting goals for themselves
- Strong evidence base for:
  1. Increasing treatment engagement
  2. Enhancing CSO well-being
  3. Reducing substance use

Kirby et al., 2015; Roozen et al., 2010

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Background

Validation of CRAFT with caregivers of AYAs

- *Individual delivery* of CRAFT has been validated with caregivers of AYAs
- Group delivery of CRAFT has been validated, but *primarily with CSOs of adults*
- **Exploration of delivery of CRAFT to caregivers of AYAs in a group format has been limited**

(Ameral et al, 2020; Bisetto Pons, 2016; Kirby et al., 2015; Manuel et al., 2012; Waldron et al., 2007)

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Methods

Objective

Advance knowledge regarding the feasibility and acceptability of a newly adapted telehealth group CRAFT for caregivers of AYAs

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Methods

Inclusion Criteria

- Caregivers of AYAs ages 13-24 years old with a current diagnosis of SUD
  - AYA inconsistently or not at all engaged in substance use treatment
- Able to commit to attending a 60*-minute telehealth group at the same time each week for 9 weeks†
- Have access to a tablet/computer & WiFi that can be used for telehealth groups
- Able to speak and read English

*Cohort 1 groups were 60 minutes; for Cohorts 2 and 3, groups were extended to 90 minutes based on participant feedback & clinician judgment
*Cohorts 1 and 2 met for 9 weeks; for Cohort 3, Session 6 was broken into to sessions based on participant feedback & clinician judgment

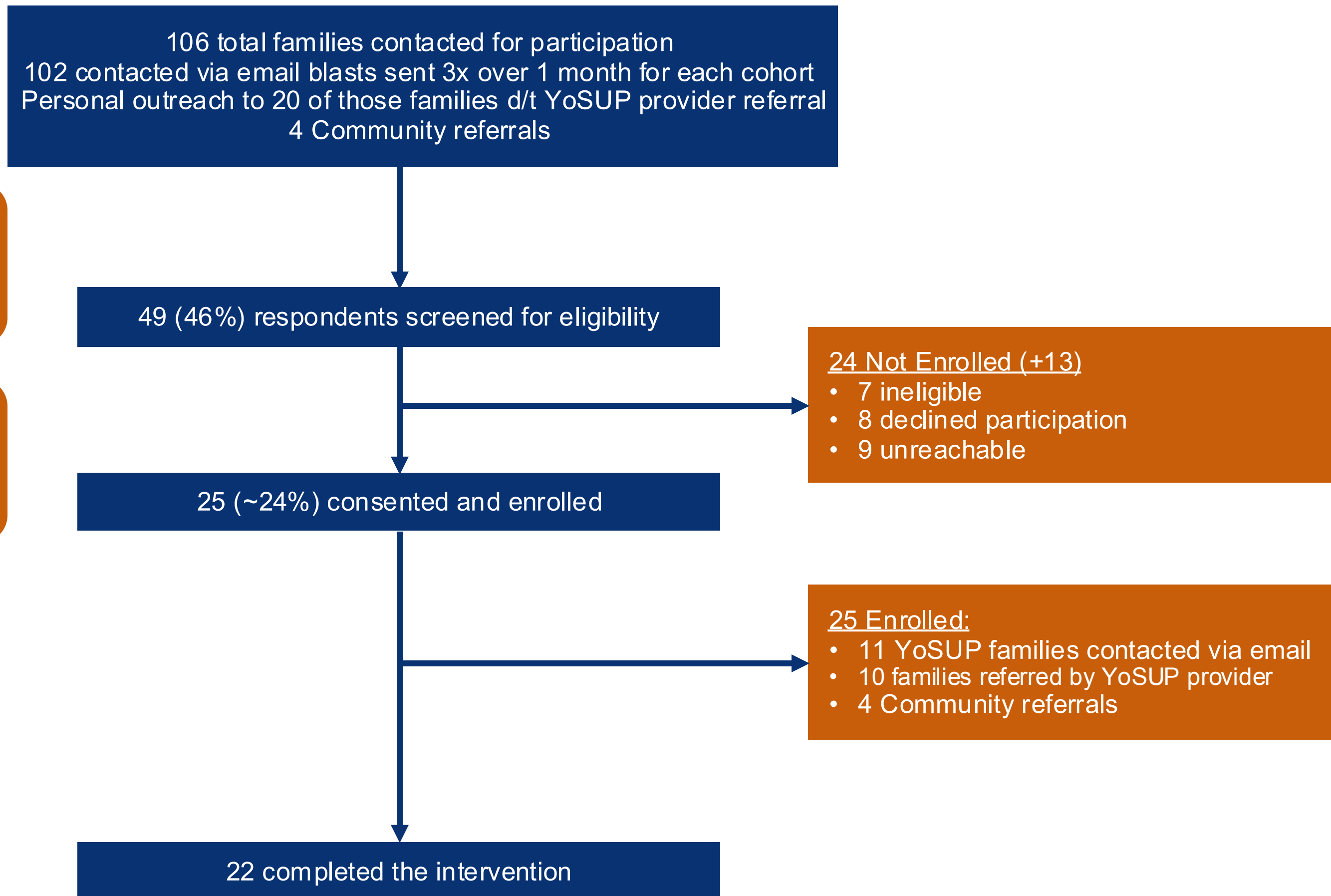
Methods

Recruitment

Cohort 1 of 3
Recruitment: September - October 2022
Intervention Start Date: October 20, 2022
Intervention End Date: December 14, 2022

Cohort 2 of 3
Recruitment: November 2022 - January 2023
Intervention Start Date: January 19, 2023
Intervention End Date: March 23, 2023
3-mo Follow-up Session: June 29, 2023

Cohort 3 of 3
Recruitment: February-April 2023
Intervention Start Date: April 27 2023
Intervention End Date: June 22, 2023
3-mo Follow-up Session: Sept 27, 2023



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Methods

Procedures

- Dosage
  - Cohort 1: 60 minutes over 9 weeks
  - Cohort 2: 90 minutes over 9 weeks
  - Cohort 3: 90 minutes over 10 weeks

All groups received 1-2 optional individual booster sessions

Methods

Procedures

Group focus:

- Train caregivers in behavior change skills
  - Empower caregivers to influence youth substance use and treatment engagement through skills use
- Improve caregiver quality of life
- Support caregivers in preparing AYAs for treatment engagement

Methods

Procedures

Session Content

0. Individual Intake/Goal-Setting
1. Introduction and Building Motivation
2. Communication Skills
3. Functional Analysis of Substance Using Behavior Part I
4. Functional Analysis Part II
5. Positive Reinforcement of Non-Using Behavior
6.* Withdrawing Reinforcement and Allowing Natural Consequences
7. Inviting the AYA to Treatment
8. Caregiver Life Enrichment
9. Review and Feedback

*This session was split into two separate sessions, for a total of 10 sessions, for Cohort 3

Methods

Measures

Construct	Measure	Data Plan
Caregiver and Youth Demographics	Race/ethnicity, sex, gender, and age Highest education completed by any caregiver Youth living situation Youth DSM-5 psychiatric and substance use disorders	Frequencies and descriptive statistics
Caregiver Self-Efficacy	Parent Empowerment Scale (PES): 4-item measure assessing caregiver sense of agency in coping with youth SUD	Pre-post descriptive trends (means/SDs) Wilcoxon signed-rank tests
Caregiver Stress Management	Perceived Stress Scale (PSS): 14-item measure assessing stress and coping in the prior month	Pre-post descriptive trends (means/SDs) Wilcoxon signed-rank tests
Caregiver-AYA Relationship	Cohesion and Conflict subscales of the Family Environment Scale (FES): Two 9-item subscales assessing home climate and caregiver-AYA relationship	Pre-post descriptive trends (means/SDs) Wilcoxon signed-rank tests
Feasibility and Acceptability	Recruitment Attendance & Attrition Satisfaction surveys (Helpfulness, knowledge, skills, & confidence) Qualitative feedback	% recruitment, attendance & attrition Mean ratings on satisfaction surveys Identification of common themes in qualitative feedback
AYA Treatment Engagement	Increased engagement in established mental health or SU treatment (caregiver report) Initiation of new mental health or SU treatment (caregiver report) Reduction or cessation of youth SU (caregiver report, C2&3)	Descriptive statistics on treatment engagement Descriptive statistics on reduction or cessation of youth substance use

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Results

Caregiver Demographics

	Cohort 1	Cohorts 2 & 3	Total
n	7	15	22
	Mean ± SD/ n(%)	Mean ± SD/ n(%)	Mean ± SD/ n(%)
Age	52.4 ± 9.9	53.1 ± 3.0	52.9 (5.9)
Gender			
Woman	6 (86%)	12 (80%)	18 (82%)
Man	1 (14%)	3 (20%)	4 (18%)
Race/ethnicity			
Non-Hispanic White	5 (71%)	11 (74%)	16 (73%)
Asian	1 (14%)	4 (27%)	5 (23%)
AI/AN	1 (14%)	--	1 (4%)
Education			
Bachelor's Degree	1 (14%)	8 (53%)	9 (41%)
Graduate degree	6 (86%)	7 (47%)	13 (59%)

Results

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Results

Youth demographics

	Cohort 1	Cohorts 2 & 3	Total
n	7	13	20
	Mean ± SD or n (%)	Mean ± SD or n (%)	Mean ± SD or n (%)
Age	16.6 ± 2.6	17.1 ± 1.9	17 ± 2.1
Gender			
Boy/Young Man	6 (86%)	6 (46%)	12 (60%)
Girl/Young Woman	1 (14%)	5 (38%)	6 (30%)
Nonbinary	--	2 (15%)	2 (10%)
Race/ethnicity			
Non-Hispanic White	5 (71%)	9 (69%)	14 (70%)
Multiracial	1 (14%)	2 (15%)	3 (15%)
AI/AN	1 (14%)	1 (8%)	2 (10%)
Asian	--	1 (8%)	1 (5%)
Living situation			
Living with participating caregiver(s) full time	6 (86%)	10 (77%)	16 (80%)
Living out of home	1 (14%)	3 (23%)	4 (20%)

Results

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Results

Youth Diagnoses

	Cohort 1	Cohorts 2 & 3	Total
n	7	13	20
	Mean ± SD/n (%)	Mean ± SD /n (%)	Mean ± SD/n (%)
Current SUD Dx			
Cannabis Use Disorder	7 (100%)	11 (85%)	18 (90%)
Opioid Use Disorder	--	3 (23%)	3 (15%)
Stimulant Use Disorder	1 (14%)	1 (8%)	2 (10%)
Hallucinogen Use Disorder	--	1 (8%)	1 (5%)
Benzodiazepine Use Disorder	--	1 (8%)	1 (5%)
Psychiatric Dx			
ADHD	6 (86%)	7 (54%)	13 (65%)
Anxiety Disorder	3 (42%)	8 (62%)	11 (55%)
Depression	2 (29%)	6 (46%)	8 (40%)
Bipolar Disorder	--	3 (23%)	3 (15%)
OCD	2 (29%)	1 (8%)	1 (5%)
Eating Disorder	--	1 (8%)	1 (5%)

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Results

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Results

Caregiver Self-Efficacy: Parent Empowerment Scale

Item	Cohorts 2 & 3 (n = 15) Baseline (Mean ± SD)	Endpoint (Mean ± SD)
Overall PES Mean	3.9 (1.2)	5.8 (.81)**
1. Understanding the nature of addiction	5.7 (1.2)	7.0 (1.3)**
2. Competence to help AYA with their SUD	3.7 (1.7)	6.3 (1.1)**
3. Comfort communicating with AYA about their SUD	4.9 (2.3)	7.1 (1.7)**
4. Ability to cope with AYA's SUD	3.9 (1.7)	6.4 (1.5)**
5. Level of stress about AYA's SUD	8.8 (1.2)	7.7 (1.5)**

All items rated on a scale from 0-10 (0= Not at all, 10 = Extremely) with higher scores indicating greater levels of parent self-efficacy to manage youth SU

For item 5, higher score indicates greater level of stress; item 5 is reverse coded when included in overall score

**p <.01

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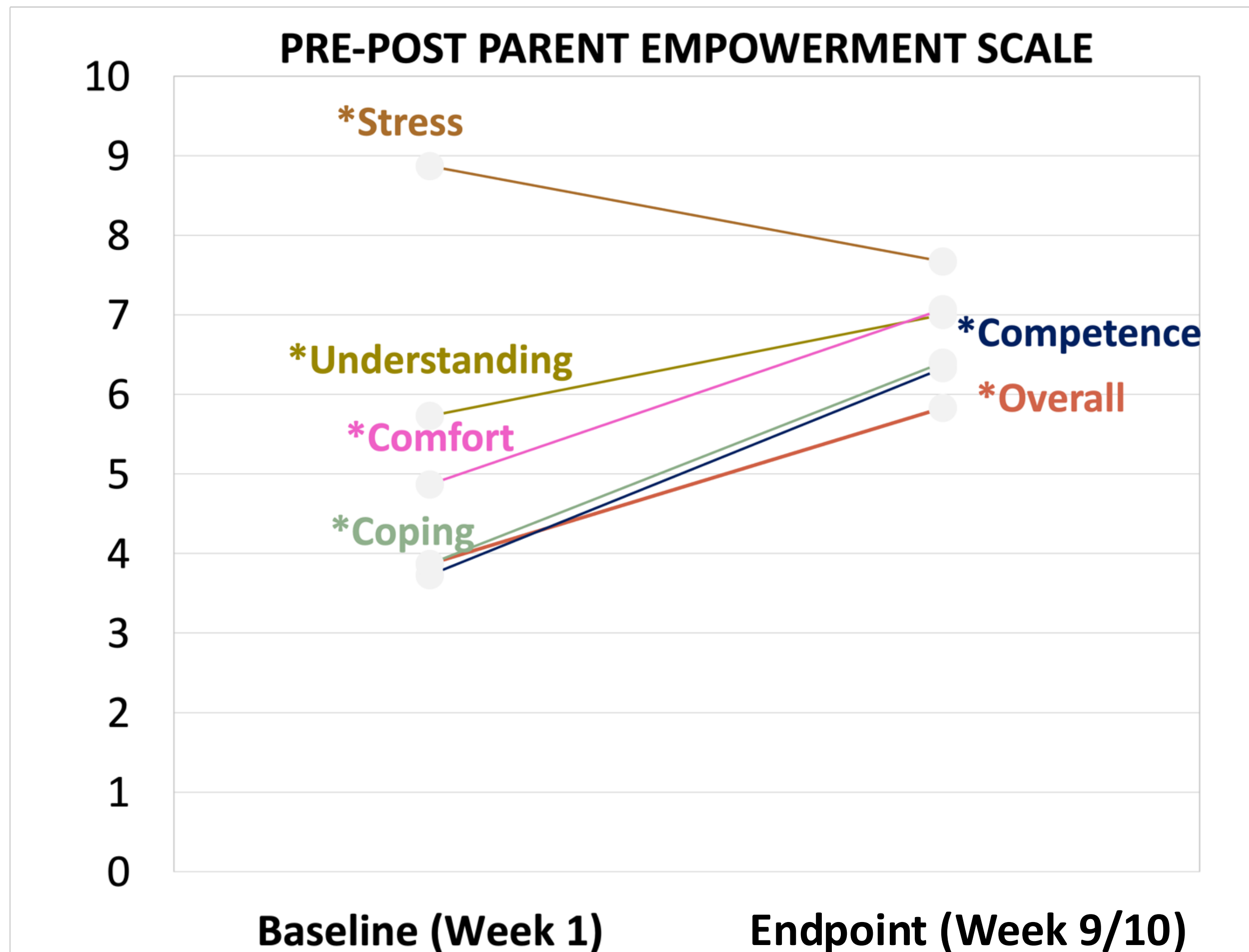
Results

Caregiver Self-Efficacy: Parent Empowerment Scale, Cohorts 2 & 3



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Results

Caregiver Stress Management & Caregiver AYA Relationship

Scale	Cohorts 2 & 3 (n= 15)	
	Baseline (Mean ± SD)	Endpoint (Mean ± SD)
Caregiver Stress Management		
Perceived Stress Scale[a]	31.5 (8.4)	25.5 (7.2)*
Caregiver-AYA Relationship		
Family Environment Scale – Cohesion[b]	5.4 (2.8)	6.4 (2.4)
Family Environment Scale – Conflict[c]	4.1 (1.8)	3.5 (1.9)

[a] 14 items rated on a scale from 0-4 (0= Never, 4 = Very often) with higher scores = higher stress
[b] 9 true-false items with higher scores indicating higher cohesion
[c] 9 true-false items with higher scores indicating higher conflict
*p <.05

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Results

AYA Treatment Engagement

- Defined as **starting new** or **increasing engagement in established** therapy or medical treatment for mental health or substance use (e.g., YoSUP follow up visits, MAT, UDS)
  - By the end of the intervention, 16 of the 20 (**80%**) AYAs had started or increased engagement in therapy or medical treatment

Results

AYA Treatment Engagement

- Reduction or cessation of use (Cohorts 2 and 3 only)
  - By the end of the intervention, **8 of the 13 (62%)** AYAs had reduced or stopped using some substances
    - Reduction:
      - Cannabis (6 teens)
      - Nicotine (3 teens)
      - Alcohol (1 teen)
    - Cessation:
      - Alcohol (2 teens)
      - Cannabis (1 teen)
      - Fentanyl (1 teen)

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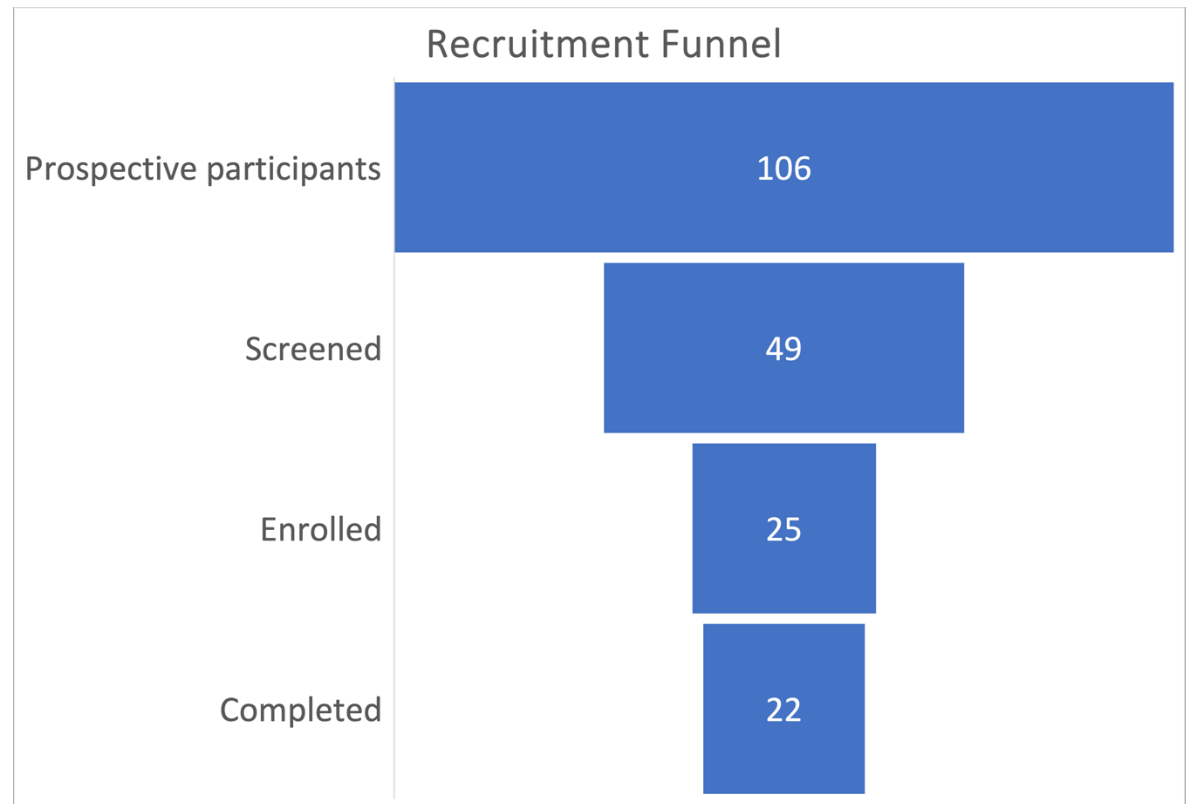
Results: Feasibility &
Acceptability

Results

Feasibility: Recruitment

- **46%** of the 106 prospective participants were screened for eligibility
- **24%** of prospective participants (n = 25) were consented and enrolled



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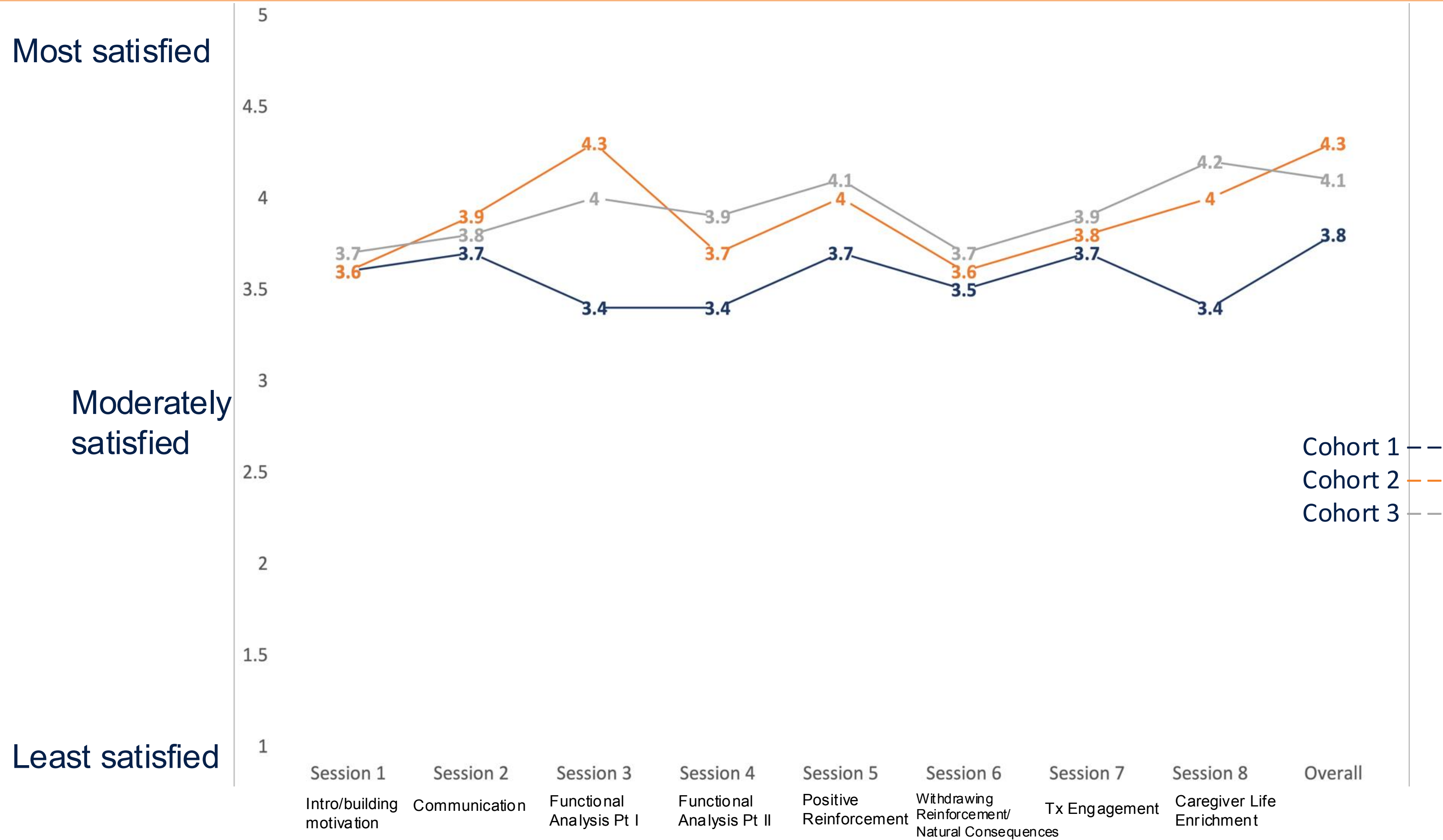
Results

Feasibility: Attendance and Attrition

- **88%** of consented caregivers completed the intervention, and those caregivers attended **85%** of sessions
  - Cohort 1: Completers (n=7; 88%) **attended an average of 7.4 (82%) of 9 sessions**
  - Cohort 2: Completers (n=9; 90%) **attended an average of 7.6 (84%) of 9 sessions**
  - Cohort 3: Completers (n=6; 86%) **attended an average of 8.8 (88%) of 10 sessions**

Results

Acceptability: Satisfaction Surveys



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Results

Acceptability: Participant Feedback

Would you recommend CRAFT to a friend?

"Yes, I have recommended it to friends already. CRAFT diminished some intense fear-based responses and has also ***decreased the amount of pressure I feel*** *while communicating with my son"*

"Yes, we often wonder how our parenting affects our son, and the CRAFT training really helped us ***gain insight into approaches that are more effective****. And we also wonder if his struggles are unique, so it was* ***incredibly beneficial to hear from other families struggling with similar experiences****"*

"Yes, I really appreciated ***feeling connected*** *to a group and like I was not alone"*

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Results

Acceptability: Participant Feedback

Would you recommend CRAFT to a friend?

"Maybe. I started the group while in crisis mode and was maybe not in the right space to start this kind of intervention. But now that things are in a better place, I have been able to go back and use the skills that I couldn't absorb or practice in the beginning"

"Yes. I think [that] CRAFT is a revolutionary idea. ***It is so much better than [approaches like] AlAnon because you don't have to wait until your loved one hits 'rock bottom'****"*

"Yes. There were both large and small skills so I could implement whatever I felt ready for. ***It also felt reassuring to ditch the 'tough love' mentality*** *that hasn't traditionally worked for my family"*

"Yes. It helped to take a step back and see the overarching picture of why our son is using and then ***helped us develop compassion*** *for him"*

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Results

Acceptability: Participant Feedback

Have you seen changes in your relationship with your AYA since starting CRAFT?

- *"Yes, our relationship has improved. I noticed myself feeling more at ease with possibly disappointing my son.* ***I don't feel like I have to tiptoe around him as much*** *anymore, and I'm more able to communicate clearly."*
- *"[CRAFT]* ***turned around the dynamics in our family****, which I didn't think was possible. I feel empowered and hopeful."*
- *"Yes. The biggest thing is that* ***this group got us on the same page*** *[with regards to our son's substance use], which we weren't before"*

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Results

Acceptability: Participant Feedback

Are you approaching substance use differently compared to when you began the program?

- *"Yes, I am using fewer negative consequences like grounding and* ***more incentivizing and positive reinforcement****. I am also saying behavior I want to see instead of what I don't want to see"*
- *I am briefer, I share my feelings more often, and I have been creative and* ***worked together with my daughter to find more positive reinforcers****"*
- *"Positive communication strategies were really profound and also helped me realize that* ***underneath the substance use, my kid is still a really good kid*** *and that* ***positive reinforcement can go a long way****. It is very accessible and [easily] implemented"*

Results

Acceptability: Participant Feedback

What were the most useful parts of the program?

- Motivational hooks and windows of opportunity
  - *“I had never thought of windows of opportunity before, but now I recognize small and large windows all the time. [It] has been revolutionary”*
  - *Using windows of opportunity, “I got a ‘yes’ from my son about going to individual therapy, and I was very surprised.”*
- Functional analysis (identifying internal and external triggers and positive/negative consequences of teen use)

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Results

Acceptability: Participant Feedback

What were the most useful parts of the program?

- Breakout rooms/role plays
  - *"Despite not 'wanting' to do them, they were the most helpful thing"*
  - *"Having opportunities to practice the skills, especially positive communication in a step-by-step way that laid out the format […] made me more confident in taking the steps"*
  - *"The breakout rooms and being able to talk through our own specific examples and situations in them… I think that was the most helpful aspect [of the group]"*

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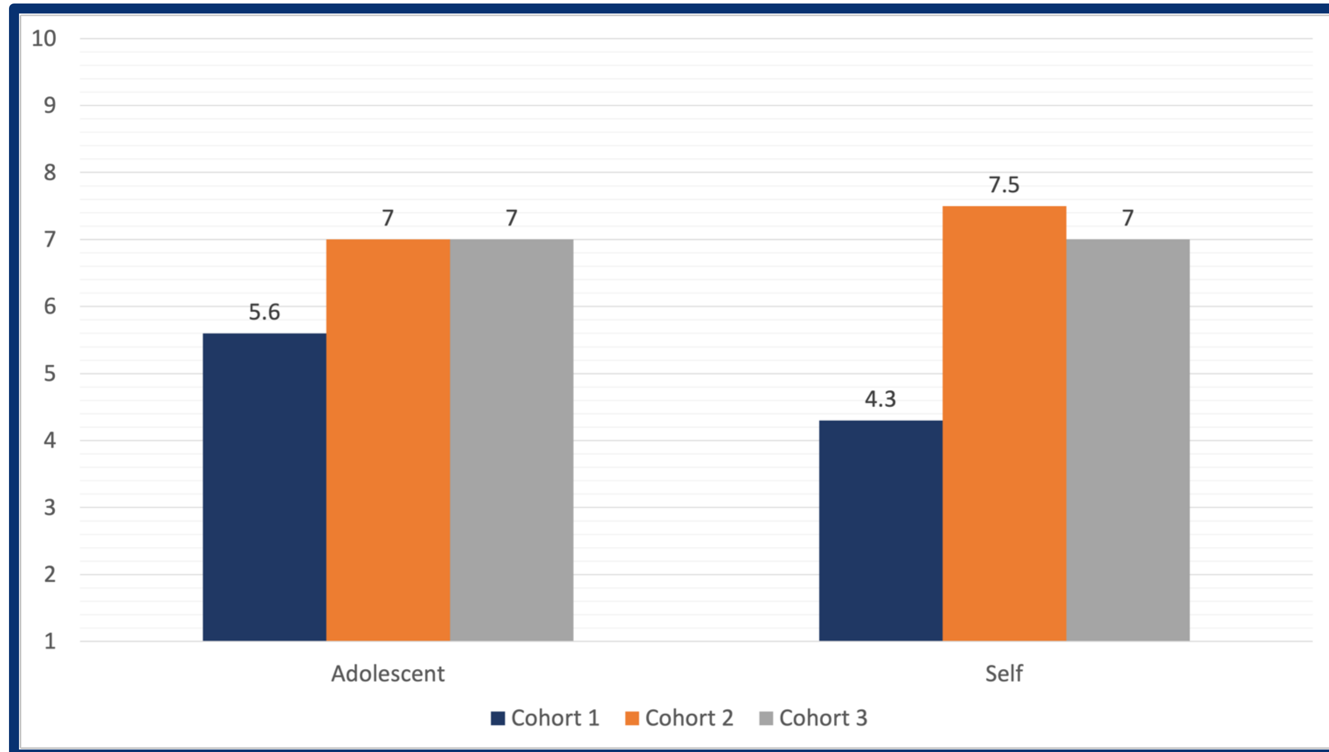
Results

Caregiver reflections on progress

On a scale of 1-10, how much progress would you estimate you've made on helping your adolescent?

On a scale of 1-10, how much progress would you estimate you've made on your own life areas?



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Results: 3-month Follow-up

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Results: 3-month follow-up

Caregiver Self-Efficacy: Parent Empowerment Scale

	Cohorts 2 & 3	
Item	Endpoint (Mean ± SD) n = 15	3-mo FU (Mean ± SD) n = 11
Overall PES Mean	5.8 (.81)	5.8 (.94)
1. Understanding the nature of addiction	7.0 (1.3)	7.1 (.83)
2. Competence to help AYA with their SUD	6.3 (1.1)	6.1 (1.8)
3. Comfort communicating with AYA about their SUD	7.1 (1.7)	6.5 (1.1)
4. Ability to cope with AYA's SUD	6.4 (1.5)	6.2 (1.3)
5. Level of stress about AYA's SUD	7.7 (1.5)	7 (1.9)

All items rated on a scale from 0-10 (0= Not at all, 10 = Extremely) with higher scores indicating greater levels of parent self-efficacy to manage youth SU
For item 5, higher score indicates greater level of stress; item 5 is reverse coded when included in overall score
**p <.01

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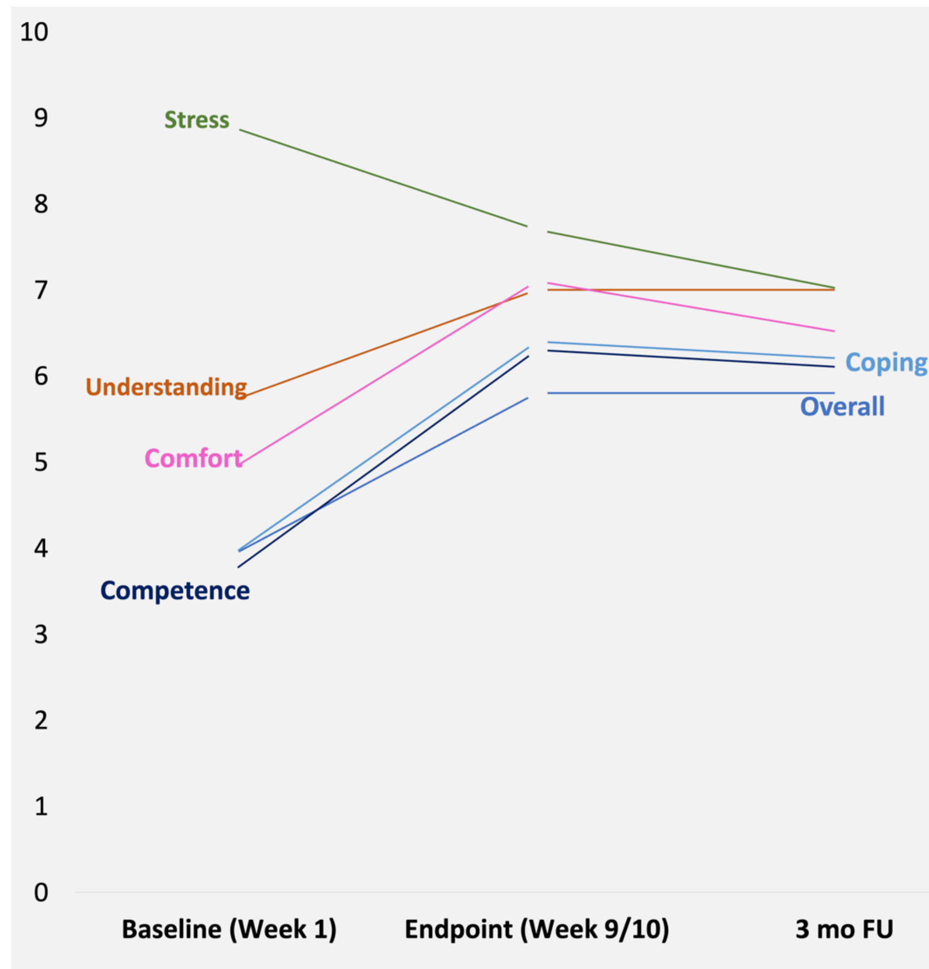
Results

Caregiver Self-Efficacy: Parent Empowerment Scale, Cohorts 2 & 3



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Results: 3-month follow-up

Caregiver Stress Management & Caregiver AYA Relationship

	Cohorts 2 & 3	
Scale	Endpoint (Mean ± SD) n = 15	3-mo FU (Mean ± SD) n = 11
Caregiver Stress Management		
Perceived Stress Scale[a]	25.5 (7.2)	26 (12.3)
Caregiver-AYA Relationship		
Family Environment Scale – Cohesion[b]	6.4 (2.4)	7 (2.2)
Family Environment Scale – Conflict[c]	3.5 (1.9)	2.7 (2.3)

[a] 14 items rated on a scale from 0-4 (0= Never, 4 = Very often) with higher scores = higher stress
[b] 9 true-false items with higher scores indicating higher cohesion
[c] 9 true-false items with higher scores indicating higher conflict
*p <.05

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Conclusions

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Conclusions

Caregiver outcomes

- **Caregiver well-being and AYA relationship**
  - Measures of caregiver self-efficacy, caregiver stress, and the caregiver-AYA relationship appeared to improve in Cohorts 2 and 3 and remained stable at 3 month follow-up

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Conclusions

Feasibility

- There was high interest in the CRAFT intervention
  - Nearly half of potential participants were screened for eligibility, and 1/5 of the total outreach pool completed the intervention
  - Attendance was high and attrition was low
- The average participant was a highly educated, White, middle-aged woman
  - Youth were primarily boys/young men in their late teens with CUD and often comorbid ADHD

Conclusions

Acceptability

- CRAFT content and skills were relevant and useful
  - Caregivers overwhelmingly said they would recommend CRAFT to a friend, specifically appreciating the:
    - Broad range of skills and novel, non-punitive approach
    - Feeling that they were "not alone"
    - Time to practice skills
- Caregivers indicated moderately high satisfaction with services on satisfaction surveys

Conclusions

Treatment Engagement

- The majority of AYAs increased engagement or started new therapy or medical treatment for mental health or substance use over the course of the intervention
  - In Cohorts 2 and 3, 2/3 of AYAs reduced or ceased use of at least one substance

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Conclusions

Limitations

- Gender, racial/ethnic, and educational diversity of caregivers and AYAs
- Sample size

Strengths

- One of the first investigations of CRAFT for Caregivers delivered in a group format
  - First via telehealth
- Team trained by developer of CRAFT, Dr. Robert J. Meyers
- 3-month follow-up data indicating sustained improvement

Future Directions

- Publish results of Group CRAFT for Caregivers
- Conduct a larger pilot study with Dr. Pugatch at Northwestern University
  - Continue iterative development of intervention in response to feasibility and acceptability indicators

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Acknowledgments

Collaborators

- Marianne Pugatch, PhD
- Steven Marsiglia, PhD
- Siena Vendlinski, BS
- Veronika Mesheriakova, MD
- Elizabeth Ozer, PhD

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- Adolescent and Young Adult Health Research Network (AYAH-RN)

Additional thanks to:

- Robert J. Meyers, PhD
- Kimberly C. Kirby, PhD
- Jennifer Manuel, PhD

Pain and Addiction Research Center

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Methods

Study Timeline

Month	Activity
July 2022	Training by CRAFT Developer, Robert J. Meyers
July-Aug 2022	Development of Group CRAFT for Caregivers
	Adaptation of manual for individual CRAFT with caregivers (Kirby, 2015) supplemented by procedures from group CRAFT (Manuel et al., 2012) and *Motivating Substance Abusers to Enter Treatment* manual (Smith & Meyers)
July-Sept 2022	IRB approval process
Sept 2022	Recruitment begins
Oct-Dec 2022	Cohort 1
Jan-Mar 2023	Cohort 2
Apr-June 2023	Cohort 3

Session Format

Group norms & mindfulness

Weekly check-in

- Caregiver personal goal
- Homework

Focal topic for the week

- Didactic teaching
- Modeling
- Practice- Breakout rooms

Whole group troubleshooting/discussion and homework

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Meeting people where they are: Motivational interviewing

A patient-centered treatment approach

Respects & integrates a patient's values, goals, and preferences into treatment

Sustained change comes when an individual is ready and motivated to make the change

The clinician helps a patient move toward change by:

Having respect for their opinions and beliefs

Helping them identify when their SU may be holding them back from meeting goals or living the life they want

The approach will differ depending on how ready a patient is to change

Patients can receive effective treatment even before they realize there is a problem, as long as they are willing to come to appointments to talk about their substance use

Methods

Example: Session 2, Communication

Learning Objectives:

Reflect on your communication with your teen

Discuss elements of positive communication skills

Practice positive communication skills

Methods

Example: Session 2, Communication

Elements of Positive Communication

1. Be brief
2. Be positive
3. Refer to specific behaviors
4. Label your feelings
5. Offer an understanding statement
6. Accept partial responsibility
7. Offer to help

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Methods

Example: Session 4, Functional Analysis

Learning Objectives:

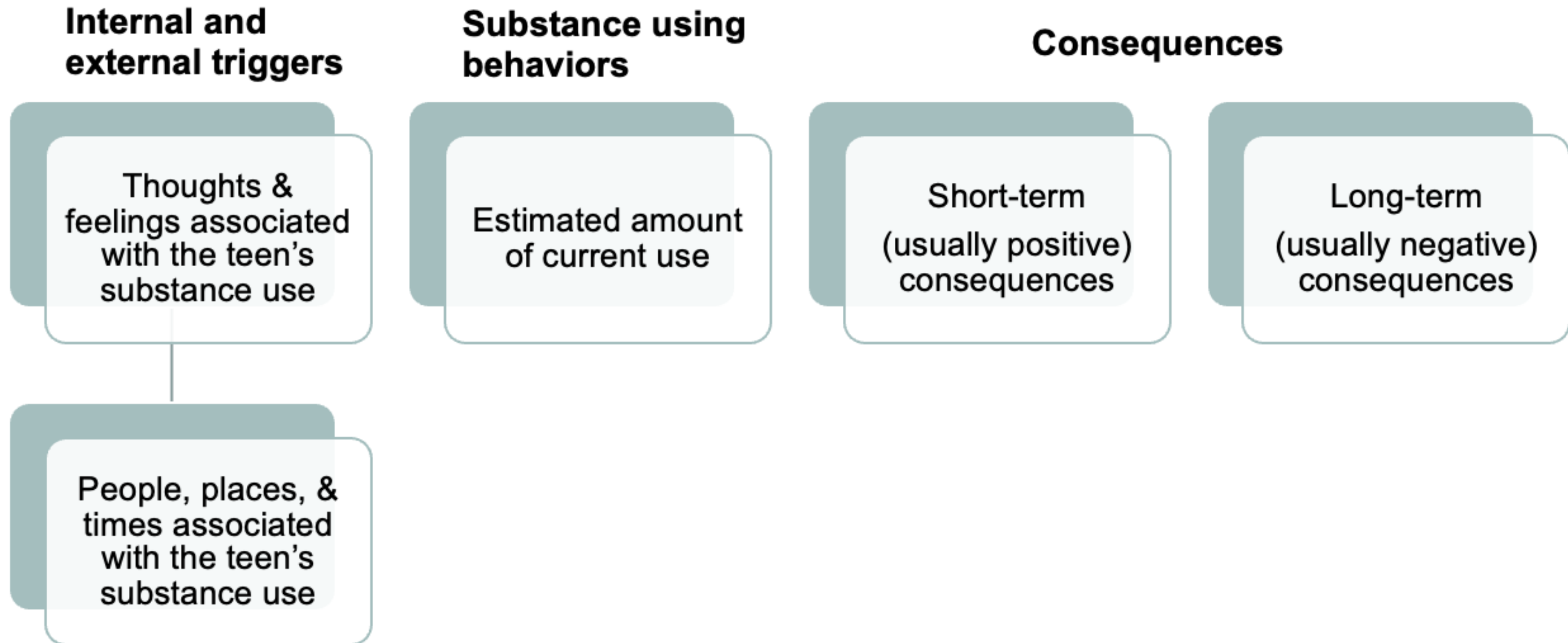
Rationale for Functional Analysis

How to use Functional Analysis

Methods

Example: Session 4, Functional Analysis

Elements of Functional Analysis



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Methods

Example: Session 5: Positive Reinforcement of Non-Using Behaviors

Learning Objectives:

To understand and apply the concept of positive reinforcement

To understand and apply identification of healthy behaviors for your AYA

To model and practice delivering positive reinforcement of healthy behaviors

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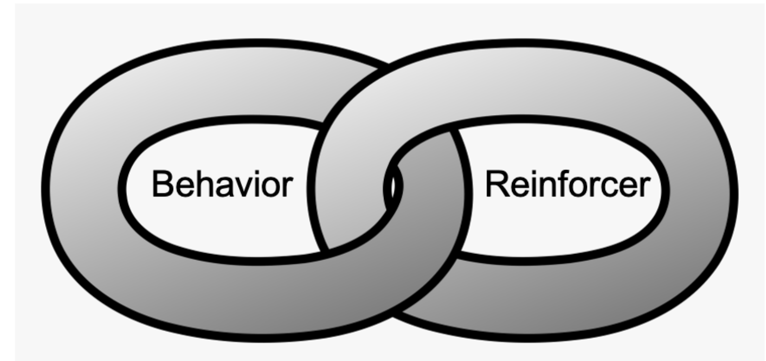
Methods

Example: Session 5: Positive Reinforcement of Non-Using Behaviors

Identifying healthy behaviors & activities to reward/reinforce

- Healthy, non-substance using behavior, ***ideally***:
  - Behavior that the teen enjoys
    - Occurs fairly often
    - Competes with substance use in some way
    - To *some extent* meets a need currently being met by substances
- "Catching them being good"
- In some cases, primary behaviors to target and reinforce may be:
  - Not being under the influence
  - Engaging with treatment



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Results

Caregiver Demographics

	Cohort 1	Cohort 2	Cohort 3	Total
n	7	9	6	22
	Mean ± SD/ n(%)	Mean ± SD/ n(%)	Mean ± SD/ n(%)	Mean ± SD/ n(%)
Age	52.4 ± 9.9	54.4 ± 3.0	51.2 ± 2.3	52.9 (5.9)
Gender				
Woman	6 (86%)	7 (70%)	5 (83%)	18 (82%)
Man	1 (14%)	2 (22%)	1 (17%)	4 (18%)
Race/ethnicity				
Non-Hispanic White	5 (71%)	6 (67%)	5 (83%)	16 (73%)
Asian	1 (14%)	3 (33%)	1 (17%)	5 (23%)
AI/AN	1 (14%)	--	--	1 (4%)
Education				
Bachelor’s Degree	1 (14%)	3 (33%)	5 (83%)	9 (41%)
Graduate degree	6 (86%)	6 (67%)	1 (13%)	13 (59%)

Results

Caregiver Demographics

	Cohort 1	Cohort 2	Cohort 3	Total
n	7	9	6	22
	Mean ± SD/ n(%)	Mean ± SD/ n(%)	Mean ± SD/ n(%)	Mean ± SD/ n(%)
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Education				
Bachelor's Degree	1 (14%)	3 (33%)	5 (83%)	9 (41%)
Graduate degree	6 (86%)	6 (67%)	1 (13%)	13 (59%)

Results

Youth demographics

	Cohort 1	Cohort 2	Cohort 3	Total
n	7	7	6	20
	Mean ± SD or n (%)	Mean ± SD or n (%)	Mean ± SD or n (%)	Mean ± SD or n (%)
Age	16.6 ± 2.6	17.6 ± 2.5	16.7 ± 1.0	17 ± 2.1
Gender				
Boy/Young Man	6 (86%)	4 (57%)	2 (33%)	12 (60%)
Girl/Young Woman	1 (14%)	3 (43%)	2 (33%)	6 (30%)
Nonbinary	--	--	2 (33%)	2 (10%)
Race/ethnicity				
Non-Hispanic White	5 (71%)	5 (71%)	4 (67%)	14 (70%)
Multiracial	1 (14%)	1 (14%)	1 (17%)	3 (15%)
AI/AN	1 (14%)	--	1 (17%)	2 (10%)
Asian	--	1 (14%)	--	1 (5%)
Living situation				
Living with participating caregiver(s) full time	6 (86%)	5 (71%)	5 (83%)	16 (80%)
Living out of home	1 (14%)	2 (29%)	1 (17%)	4 (20%)

Results

Youth demographics

	Cohort 1	Cohort 2	Cohort 3	Total
n	7	7	6	20
	Mean ± SD or n (%)	Mean ± SD or n (%)	Mean ± SD or n (%)	Mean ± SD or n (%)
Age	16.6 ± 2.6	17.6 ± 2.5	16.7 ± 1.0	17 ± 2.1
Gender				
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Nonbinary	--	--	2 (33%)	2 (10%)
Race/ethnicity				
Non-Hispanic White	5 (71%)	5 (71%)	4 (67%)	14 (70%)
Multiracial	1 (14%)	1 (14%)	1 (17%)	3 (15%)
AI/AN	1 (14%)	--	1 (17%)	2 (10%)
Asian	--	1 (14%)	--	1 (5%)
Living situation				
Living with participating caregiver(s) full time	6 (86%)	5 (71%)	5 (83%)	16 (80%)
Living out of home	1 (14%)	2 (29%)	1 (17%)	4 (20%)

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Results

Youth Diagnoses

	Cohort 1	Cohort 2	Cohort 3	Total
n	7	7	6	20
	Mean ± SD/n (%)	Mean ± SD /n (%)	Mean ± SD /n (%)	Mean ± SD/n (%)
Current SUD Dx				
Cannabis Use Disorder	7 (100%)	6 (86%)	5 (83%)	18 (90%)
Stimulant Use Disorder	1 (14.3%)	--	1 (17%)	2 (10%)
Opioid Use Disorder	--	1 (14%)	2 (33%)	3 (15%)
Hallucinogen Use Disorder	--	--	1 (17%)	1 (5%)
Benzodiazepine Use Disorder	--	--	1 (17%)	1 (5%)
Psychiatric Dx				
ADHD	6 (86%)	3 (42%)	4 (67%)	13 (65%)
Depression	2 (29%)	3 (42%)	3 (50%)	8 (40%)
Anxiety	3 (42%)	4 (57%)	4 (67%)	11 (55%)
OCD	2 (29%)	--	1 (17%)	1 (5%)
Bipolar Disorder	--	1 (14%)	2 (33%)	3 (15%)
Eating Disorder	--	--	1 (17%)	1 (5%)

Results

Youth Diagnoses

	Cohort 1	Cohort 2	Cohort 3	Total
n	7	7	6	20
	Mean ± SD/n (%)	Mean ± SD /n (%)	Mean ± SD /n (%)	Mean ± SD/n (%)
Current SUD Dx				
Cannabis Use Disorder	7 (100%)	6 (86%)	5 (83%)	18 (90%)
Opioid Use Disorder	--	1 (14%)	2 (33%)	3 (15%)
Stimulant Use Disorder	1 (14.3%)	--	1 (17%)	2 (10%)
Hallucinogen Use Disorder	--	--	1 (17%)	1 (5%)
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Psychiatric Dx				
ADHD	6 (86%)	3 (42%)	4 (67%)	13 (65%)
Anxiety Disorder	3 (42%)	4 (57%)	4 (67%)	11 (55%)
Depression	2 (29%)	3 (42%)	3 (50%)	8 (40%)
Bipolar Disorder	--	1 (14%)	2 (33%)	3 (15%)
OCD	2 (29%)	--	1 (17%)	1 (5%)
Eating Disorder	--	--	1 (17%)	1 (5%)

Results

Caregiver Self-Efficacy: Parent Empowerment Scale

	Cohort 1 (n = 7)		Cohorts 2 & 3 (n = 15)	
Item	Baseline (Mean ± SD)	Endpoint (Mean ± SD)	Baseline (Mean ± SD)	Endpoint (Mean ± SD)
Overall PES Mean	3.7 (1.4)	4.8 (1.5)	3.9 (1.2)	5.8 (.81)**
1. Understanding the nature of addiction	5.8 (2.5)	7.4 (1.9)	5.7 (1.2)	7.0 (1.3)**
2. Competence to help AYA with their SUD	3.4 (1.4)	4.9 (2.6)	3.7 (1.7)	6.3 (1.1)**
3. Comfort communicating with AYA about their SUD	4.4 (1.8)	6.7 (2.1)	4.9 (2.3)	7.1 (1.7)**
4. Ability to cope with AYA's SUD	3.1 (1.4)	4.1 (2.2)	3.9 (1.7)	6.4 (1.5)**
5. Level of stress about AYA's SUD	8.6 (1.0)	9 (1.4)	8.8 (1.2)	7.7 (1.5)**

All items rated on a scale from 0-10 (0= Not at all, 10 = Extremely) with higher scores indicating greater levels of parent self-efficacy to manage youth SU

For item 5, higher score indicates greater level of stress; item 5 is reverse coded when included in overall score

**p <.01

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Results

Caregiver Self-Efficacy: Parent Empowerment Scale

Item	Cohort 1 (n = 7)		Cohorts 2 & 3 (n = 15)	
	Baseline (Mean ± SD)	Endpoint (Mean ± SD)	Baseline (Mean ± SD)	Endpoint (Mean ± SD)
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1. Understanding the nature of addiction	5.8 (2.5)	7.4 (1.9)	5.7 (1.2)	7.0 (1.3)**
2. Competence to help AYA with their SUD	3.4 (1.4)	4.9 (2.6)	3.7 (1.7)	6.3 (1.1)**
3. Comfort communicating with AYA about their SUD	4.4 (1.8)	6.7 (2.1)	4.9 (2.3)	7.1 (1.7)**
4. Ability to cope with AYA's SUD	3.1 (1.4)	4.1 (2.2)	3.9 (1.7)	6.4 (1.5)**
5. Level of stress about AYA's SUD	8.6 (1.0)	9 (1.4)	8.8 (1.2)	7.7 (1.5)**

All items rated on a scale from 0-10 (0= Not at all, 10 = Extremely) with higher scores indicating greater levels of parent self-efficacy to manage youth SU
For item 5, higher score indicates greater level of stress; Item 5 is reverse coded when included in overall score
**p <.01

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Methods: Iterative Development

Changes in response to feedback

- In response to participant feedback and clinician judgment, the following changes were made
  - The group length was extended from 60- to 90-minutes for Cohorts 2 and 3. The additional 30 minutes went towards:
    - Check-in
    - Breakout rooms
  - The duration of the group was extended from 9 to 10 sessions for Cohort 3
    - The additional session was used to divide Session 6, *Withdrawing Reinforcement and Allowing Natural Consequences* into two separate sessions

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Results

Acceptability: Participant Feedback

What did you think of the timing and pace of the sessions? (Cohort 1, 60 mins over 9 weeks)

Length/frequency of sessions

- All wanted sessions to be longer or more frequent

“I fantasized about having the sessions be twice as long or twice a week so that one session is dedicated to content and one session dedicated to practicing and implementing”

- Wanted more breakout room time to practice

“The material was right on and super applicable and resonant but there wasn’t enough time in group to practice applying it to my own specific family situation”

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Results

Acceptability: Participant Feedback

What did you think of the timing and pace of the sessions? (Cohort 2, 90 mins over 9 weeks)

Length/frequency of sessions

- Many reported liking the 1.5 hour session time and weekly pace/frequency
- One participant suggested having CRAFT span over a longer duration of time (over the course of more weeks)
- Several participants reported wanting follow-up sessions
  - *"It would be nice to have […] once per quarter or once a month follow-ups to continue checking in with the group"*
- Many wanted still more time in breakout rooms to practice more & get clinician feedback

Results

Acceptability: Participant Feedback

What did you think of the timing and pace of the sessions? (Cohort 3, 90 mins over 10 weeks)

Length/frequency of sessions

- 1x/week for 90 minutes worked well
  - 2x/week would be too difficult to fit in schedule
  - Shorter sessions would be hard because "I need a moment to settle in and find a private space," and because the practice time was so important

Cadence of sessions

- Wanted more time in breakout rooms (e.g., half the time spent in breakout, half on didactic content)

Results

Acceptability: Participant Feedback

What got in the way of getting the most of out of the group? (Logistics)

- **First session content (Overview of CRAFT/Building Motivation) seemed like it could have been covered in individual intakes**
  - Several participants mentioned wanting to jump right into the content and skills
- **Wanted auxiliary resources**
  - More printable resources (e.g., tipsheets) for each session
  - Refer caregivers to relevant chapters of CRAFT books

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Results

Acceptability: Participant Feedback

Have you seen changes in your relationship with your AYA since starting CRAFT?

- *"Positive communication strategies were really profound and also helped me realize that underneath the substance use, my kid is still a really good kid and that positive reinforcement can go a long way. It is very accessible and [easily] implemented"*
- *"Participating in CRAFT helped me show my daughter that I'm trying to help her because I care about her, and that I also have goals of working towards a better life and relationship"*

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Results

Acceptability: Participant Feedback

What got in the way of getting the most of out of the group?

Wanted more throughline for caregiver life/well-being

- *"It was [discussed] at the beginning and end but there wasn't enough content throughout the program about how our lives can't be put on hold every time there's a crisis and how it's important to continue caring for ourselves"*

- **Relevance**
  - Caregiver of a teen with OUD felt that some content was less applicable/relevant to OUD
  - Two caregivers of youth with longstanding SUDs felt the skills and strategies were along the lines of "basic parenting skills" that they had already tried

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