Integrated care models for the treatment of co-occurring substance use and psychiatric disorders in youth: Building and testing the ASSIST model at the Co-occurring Disorder in Adolescents & Young Adults (CODA) clinic at Johns Hopkins

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Introduction

Historically, substance use disorders (SUDs) and psychiatric disorders in youth have been treated separately and multiple barriers existed to integrating care. Now, a growing body of research suggests that integrated treatment of substance use and psychiatric disorders can lead to better treatment outcomes[1].

The concept of systems of care has evolved in an attempt to better understand the factors that facilitate system development and how these factors interact with each other to make a well-functioning systems of care.

Objectives

To describe the Adolescent Substance use and Substance-related Integrative Systems Treatment (ASSIST) model used in the (CODA) clinic at Johns Hopkins.

The CODA clinic at Johns Hopkins

CODA Clinic at Johns Hopkins is a subspecialty outpatient clinic embedded in a community psychiatry setting. We use an integrated approach, performing diagnostic evaluations and providing concurrent treatment of substance use and psychiatric disorders in a single location by a multidisciplinary treatment team and clinical workforce trained to provide evidence-based interventions for both substance use and psychiatric conditions. We utilize an ecological systems-based framework predicated on the belief that co-occurring disorders emerge, shift during treatment, and remit in the context of multiple internal and environmental factors.

- Age range: 13-25 years old
- Patients have a primary psychiatric disorder and meet DSM-5 criteria for at least one substance use disorder.
- Multidisciplinary treatment team includes an addiction trained board-certified child and adolescent psychiatrist, CAP fellow, and licensed and trained Master's-level clinicians.
- Standard treatment course: 16- to 20-week treatment episodes.

The ASSIST model: combining integrated care, a systems-focused framework, and evidence-based interventions

The Adolescent Substance use and Substance-related Integrative Systems Treatment (ASSIST) model combines (1) an integrated care model; (2) a system-focused framework; and (3) evidence-based behavioral and pharmacologic interventions towards the treatment of adolescent and young adult co-occurring substance use and psychiatric disorders.

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Integrated care models

Integrated care models for co-occurring disorders – models that address substance use and psychiatric disorders concurrently by the same treatment team (i.e., "one-stop shopping" care) may be associated with better treatment outcomes.

In the CODA clinic we use an integrated care model (see Fig. 1) based, in part, on Vermont's hub-and-spoke model[2].

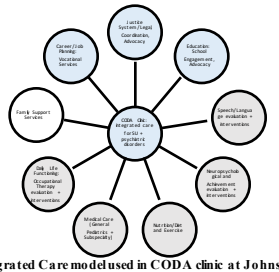


Figure 1. Integrated Care model used in CODA clinic at Johns Hopkins. CODA clinic represents hub with spokes connecting to medical/pediatric and ancillary services. Blue circles represent services provided in whole or part by CODA treaters that are not part of SU or mental health treatment. Gray circles represent services provided within Johns Hopkins system. White circle(s) represent services provided by government or other agencies outside of Johns Hopkins medical system.

Evidenced-based Interventions for Substance Use and Psychiatric Disorders

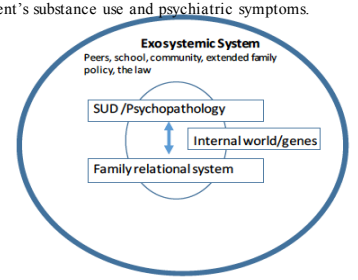
Figure 2. Evidence-based behavioral[3] and pharmacological[4] interventions for SUDS, and co-occurring disorders[5]

	Evidence-based interventions for Substance Use Disorders	Evidence-based interventions for common co-occurring psychiatric disorders
Behavioral or psychosocial interventions	Motivational Interviewing /Motivational Enhancement Treatment (MET) Cognitive Behavioral Therapies (CBT) Family-Based Therapies (FBT) Adolescent-Community Reinforcement (A-CRA) Multi-Systemic Therapy (MST) Contingency Management (CM)	CBT for Major Depression, Anxiety Disorders, Attention Deficit/Hyperactivity Disorder. FBT for Conduct Disorder Trauma-focused CBT for PTSD Dialectical Behavioral Therapy (DBT) for Borderline Personality Disorder
Pharmacotherapies[b]	**Withdrawal Syndromes** Opioid withdrawal syndrome: Buprenophine, Clonidine Alcohol withdrawal syndrome: Benzodiazepines **Maintenance/Relapse Prevention** Opioid use disorders: Buprenophine-naloxone, Naltrexone (IM), Methadone Alcohol use disorders: Naltrexone, Acamprosate, Disulfiram Tobacco use disorders: Nicotine replacement therapy, Bupropion SR, Varenicline Cannabis use disorders: N-acetylcystine **Overdose Prevention** Opioids: Intranasal Naloxone	**Major Depression, Anxiety Disorders, and PTSD** SSRIs (Fluoxetine, Sertraline) and Bupropion XL **ADHD** Long-acting stimulants (OROS-Methylphenidate) and non-stimulants (Atomoxetine, Bupropion XL) **Bipolar Affective Disorder** Mood Stabilizers (Lithium) **Psychotic disorders** Antipsychotics

a= The psychiatric disorders that most commonly co-occur with substance use disorders are Attention Deficit/Hyperativity Disorder (ADHD) (30-50%), Conduct Disorder (60-80%), Major Depression, and Anxiety and Stress Related Disorders (e.g. Post-traumatic Stress Disorder) (30-40%).
b= All medications listed in this table with exception to intranasal naloxone, have been studied in one or more randomized clinical trials (RCT) for the pharmacotherapy treatment of adolescent SUDs or adolescent co-occurring substance use and psychiatric disorders (Major Depression, ADHD, and Bipolar Disorder) (Hammond and Gray, 2016).

Ecological systems-focused intervention framework

An ecological systems-focused framework[5] can provide an internal and environmental context for how substance use and psychiatric symptoms and disorders emerge, interrelate, and change over time. Furthermore, it can aid in risk stratification and provide a treatment planning "roadmap" giving focus to what interventions and ancillary services should be administered and where, when, and how to best administer those interventions. In the CODA clinic we characterize and track how family/extended family-, peer group-, school/vocation-, justice system- and community-level risk and protective factors relate to the client/patient's substance use and psychiatric symptoms.



Conclusions

A growing body of research indicates that integrated care models for co-occurring substance use and psychiatric disorders may be associated with better treatment outcomes. Furthermore, interventions that examine and strategically target risk and protective factors in the different ecosystems may shift the risk-resilience balance and improve outcomes. The ASSIST model used in the Johns Hopkins CODA clinic combines these approaches into a single integrated systems-based care model and, with that as a treatment backdrop, provides evidence-based interventions for SU and psychiatric disorders. Future research is needed to determine which combination of interventions/treatments and implementation approaches are most effective and cost-effective in treatment of co-occurring disorders in youth.

References

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