Maryland BHIPP
Improving Treatment of OUD in Youth
December 18th, 2020 12:30 – 1:30 PM
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www.mdbhipp.org
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Marc Fishman, MD, is an addiction psychiatrist, Medical Director of Maryland Treatment Centers, and a member of the Psychiatry faculty of the Johns Hopkins University School of Medicine. Dr Fishman leads Maryland Treatment Centers, a regional behavioral health care provider, which includes Mountain Manor Treatment Centers in Baltimore and Emmitsburg as well as several other inpatient and outpatient programs. In that role he has been involved in development and implementation of innovative programming in addiction and co-occurring disorder treatment. His clinical specialties include treatment of drug-involved and dual-diagnosis youth, opioid addiction in adolescents and adults, and addiction with co-occurring psychiatric disorders. His research work has focused on medication treatment for SUDs as well as, models of care and treatment outcomes in youth, in particular opioid addiction. He has been a president of the MD Society of Addiction Medicine and is currently a member of its Board.
Offering support to pediatric primary care providers through free:

- Telephone consultation (855-MD-BHIPP)
- Resource & referral support
- Training & education
- Regionally specific social work co-location (Salisbury University and Morgan State University)
- Project ECHO®

Coming soon!
- Direct Telespsychiatry & Telecounseling Services
- Care coordination
BHIPP is supported by funding from the **Maryland Department of Health, Behavioral Health Administration** and operates as a collaboration between the **University of Maryland School of Medicine**, the **Johns Hopkins University School of Medicine**, **Salisbury University** and **Morgan State University**.

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BHIPP is Available to Provide Support to PCPs During the Pandemic

BHIPP is open.

The BHIPP phone line remains open during this challenging time to support primary care clinicians in assessing and managing the mental health needs of their patients.

1-855-MD-BHIPP
(1-855-632-4477)

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Maryland Addiction Consultation Service (MACS)

Provides support to prescribers and their practices in addressing the needs of their patients with substance use disorders and chronic pain management.

**All Services are FREE**

- Phone consultation for clinical questions
- Education and training opportunities related to substance use disorders and chronic pain management
- Assistance with addiction and behavioral health resources and referrals
- Technical assistance to practices implementing or expanding office-based addiction treatment services
- MACS TeleECHO™ Clinics: collaborative medical education through didactic presentations and case-based learning

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Consultant for Alkermes, US World Meds, Drug Delivery LLC, Verily Life Sciences, Danya, ASAM

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Outline

- Background and scope of the problem
- Barriers to success along the OUD treatment cascade
- Treatment: Survey of current evidence and emerging models of care
- New directions:
  - Engaging families and home delivery
  - Primary care integration
  - Recovery housing
- Conclusions
Background

- Opioid use disorder (OUD) is an advanced, malignant form of substance use disorder (SUD), usually beginning in **youth**
- Young adults are disproportionately affected by the opioid epidemic
- There is evidence and consensus for **medications in OUD** (MOUD) in youth, but dissemination is poor due to problems with capacity, misinformation, and prejudice
- Developmental vulnerability in youth is prominent
- Youth have **worse outcomes** than mature adults
- Improved, developmentally-informed strategies that target engagement, retention and medication adherence could help
- The Youth Opioid Recovery Support (YORS) intervention and others have promise as innovative approaches
Addiction – a developmental disorder of pediatric onset

The vast majority of youth who initiate opioids have problems with other substances first

Earlier onset associated with worse outcomes

Earlier intervention associated with better outcomes

Opioid addiction as an advanced stage in progression of illness

Prevention of OUD by treatment of non-opioid SUD prior to opioid initiation – cannabis, alcohol, nicotine
Young adults have the highest prevalence of use of non-medical prescription opioids.
Young adults have the highest prevalence of use of heroin.
CTN Youth Buprenorphine Study
Opioid Positive Urines: 12 weeks Bup vs Detox

Treatment of opioid dependence in adolescents and young adults with extended release naltrexone: preliminary case-series and feasibility

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- 20 youth received extended release naltrexone
- 16 youth initiated outpatient treatment
- 10 youth retained at 4 months
- 9 youth “good outcome”
Medications promote retention for youth (But poor uptake)

- Medicaid claims datasets, 11 states, ages 13-22
- N = 4837 youths dx OUD (out of 2.4M, 0.2%)
- 76% received *any* treatment within 3 months of dx
- 52% received psychosocial services only
- 26% received any medication (5% for age <18 yrs).

Hadland et al. JAMA Pediatrics 2018
Duration of Treatment
Impact of Treatment Delivery


Participants who received 56-day buprenorphine were retained in treatment **significantly longer** than participants who received 28-day buprenorphine.

Participants who had intermediate program requirements were retained in treatment **significantly longer** than participants who had very intensive program requirements.
Retention bup treatment
young adults vs older adults

Young adults have worse outcomes vs older adults: XBOT secondary analysis

MOUD for adolescents and young adults
Summary of the evidence

- Buprenorphine effective (though outcomes not as good as for older adults)
- Longer is better; no evidence for time limitation
- XR-NTX promising, but little youth-specific research
- MOUD promotes retention in all treatment for youth
- No signal for safety problems based on age
- MOUD first line; No evidence for fail-first
“We found this in your brain.”
How should we help this young person?

- 22 M
- Onset cannabis age 14
- Onset prescription opioids 17, progressing to daily use with withdrawal within 8 months
- Onset nasal heroin 18, injection heroin 6 months later
- 3 episodes residential tx, 2 AMA, 1 completed, but no continuing care
- Buprenorphine treatment (monthly supply Rx x 4), took erratically, sold half
- Presents in crisis seeking detox ("Can I be out of here by Friday?")
Features of youth opioid treatment

- Developmental barriers to treatment engagement
  - Invincibility
  - Immaturity
  - Motivation and treatment appeal
  - Less salience of consequences
  - Strong salience of burdens of treatment
- Variable effectiveness of family leverage
- Pushback against sense of parental dependence and restriction
- Prominence of co-morbidity
Young Adults Enrolled in Specialty Intensive Outpatient (IOP)

Vo et al. Relapse Prevention Medications in Community Treatment for Young Adults with Opioid Addiction. Substance Abuse. 2016

![Graph showing the percentage of opioid-negative urine drug screens (UDS) over treatment weeks for Young Adults enrolled in Specialty Intensive Outpatient (IOP) treatment. The graph includes data for Bupe and XRNTX with a decreasing trend over time. The overall p-value is noted as 0.06 with individual time points marked as *p<0.05. The sample size is N=65, with an average age of 23 years (range 19-26) and SBX 77%, NTX 23%.](image)
MOUD feasible for youth in real world
But poor adherence in community treatment

- Treatment received in acute residential followed by multiple community providers, youth 15-21, N=288
  - XRNTX 28%, Bup 33%, No meds 39%
- Over 6 months following residential discharge **low rates of MOUD** use:
  - XRNTX: mean doses 1.3
    - 41% 1st OP dose
    - 12% 3rd OP dose
    - 2% 6th OP dose
  - Bup: mean days 57

- Currently receiving MOUD **higher for the bup group** than XR-NTX or no medication at 6 months
- Self-reported opioid use **lower for XR-NTX group** than bup and no meds at 3 and 6 months
- Meeting OUD criteria **lower for XR-NTX than** no meds at 3 and 6 months, and than bup at 3 months

Example of Innovative Intervention
Youth Opioid Recovery Support (YORS)

Assertive Outreach + Family Involvement + Medication Home Delivery + Incentives for Medication

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Assertive Treatment

Well established for treatment of chronic illness in hard-to-reach populations in which medication adherence is a major barrier

- TB, HIV, schizophrenia (ACT)
Family Engagement: Historical Barriers

- Normative pushback against sense of parental dependence and restriction
- Clinicians: lack of training, competence, comfort
- Focus on internal transformation
- Preoccupying focus on “enabling”
- Over-rigid concern with confidentiality
Rationale

Both families and youth need a recipe for treatment, with role definitions, expectations, and responsibilities.

Families have core competence and natural leverage.

Encouragement of emerging youth autonomy and self-efficacy is compatible with empowerment of families.

Family mobilization – “Medicine may help with the receptors, but you still have to parent this difficult young person”
Family Framework Elements

- Family education
- 3-way treatment plan, collaboration, and contract: youth, family, program
- How will family know about attendance and treatment progress?
- How will family help support attendance and treatment progress?
- How will family help support medications?
- What is the back-up or rescue plan if there is trouble?
Principles of Family Negotiation

The Art of the Deal

- Pick your battles
- Know your **leverage**
- You gotta give to get
- You have more juice than you realize
- Keep your **eyes on the prize**
Home delivery

- Meet them where they are, literally
- Prioritization of MOUD

Contingency management

- Well established in research but little uptake in real-world care
- Best studied target negative UDS
- Medication adherence as target less well established but perhaps more generalizable?
• 21-year-old male injecting heroin

• 5 inpatient detox admissions over 1.5 years, each time got first dose of extended-release naltrexone but never came back for 2\textsuperscript{nd} dose

• Lives with GM, team shows up with dose, he says no thank you, she says no not an option, done deal, gets 6 doses
Engagement – monitoring

Hey Ms. [redacted], just wanna let you know that Brittany got her shot no problem.

Great thank you so much.

That is great news! Thank you! I think he really needs some mental health support but apparently he hasn’t seen anyone yet to start treating his PTSD. But I’m glad he is back on vivitrol.

Ya he told us that was the case. We’ll see if we can help with that.

Thank you so much.

I can’t tell you how much I appreciate it.
Maintaining therapeutic optimism

Hey I'm getting kicked out because you told my mom I didn't leave a urin so yeah I'm a have to stop the study.

May 3, 6:54 PM

Or you can come leave a urin?

May 3, 6:54 PM

I couldn't pee what was I suppose to do wait for 2 hours hours in till I could? I fucking homeless now I have to go to the city to live in a bando

May 3, 6:57 PM

I'm still here come leave a urin.

May 3, 6:58 PM

Don't use this as an excuse to relapse.

May 3, 6:58 PM

Thanks for everything, goodbye.

May 3, 6:59 PM

Great. Would love to talk to you if you'd like otherwise Jared can get it.

May 4, 1:08 PM

I'm sorry this is how things turned out, it was not my intention. I do think I can help next steps and getting everyone on board. Please think about it

May 4, 1:10 PM

Hi B. Just confirming that I will see you tomorrow at 3?

May 4, 1:29 PM

Yes.

May 16, 12:44 PM

Am I getting shot friday

May 16, 12:46 PM

Yes. That ok?
Balancing parental and young adult empowerment

• Patient: “Mom, you can’t be in here when I’m getting the shot...”

• Therapist: “Ma’am I think it’s best if we provide her privacy for the injection.”

• Mother: “Are you kidding me? Of course I am. I’m not leaving this room till I see that medicine go in you...”
Keep your eyes on the prize
Don’t take no for an answer

Tue, Apr 3, 6:30 PM

Can u stop calling my mother am done I don't want no more shots

Can you give us a call?

Thanks for sticking with us Eddie, we'll see you tomorrow around 7:30 for the shot. And if you having any problems with vivitrol, we can get you in to see the doctor about it
ORYS Pilot RCT

- Ages 18-26, OUD, seeking XR-NTX
- Recruitment through index episode of acute residential treatment, with detox
- Randomization to YORS vs TAU
- 6 months duration
- N = 38
- Outcomes: doses received, opioid relapse (>10d use per 28d, missing imputed pos)

Receipt of Cumulative XR-MOUD Doses

Inpatient dose ≥ 1 outpatient dose ≥ 2 ≥ 3 ≥ 4 ≥ 5 ≥ 6

YORS (n = 18) TAU (n = 20)

Received all prescribed doses: 44% vs 0%

YORS Outcomes: Opioid Relapse-Free Survival

- N=18 (HR 2.72, CI 1.26–5.88)
- N=20

YORS pilot Study #2

• Ages 18-26, OUD, seeking XR-MOUD, choice of XR-NTX or XR-Bup
• Recruitment through index episode of acute residential treatment, with detox
• Historical comparison TAU group from study #1
• Variable duration 12-24 wks
• N = 22
• Outcomes: doses received, opioid relapse (>10d use per 28d, missing imputed pos)

Mean outpatient MOUD doses received

**Study 1**
(XR-NTX only)

![Bar chart for Study 1 showing YORS (n = 18) and TAU (n = 20) at 6 Months.]

**Study 2**
(patient choice XR-NTX or XR-BUP)

![Bar chart for Study 2 showing YORS (n = 22) and Historical TAU (n = 20) at 6 Months.]

YORS (Yield Observation Research Study) and TAU (Treatment As Usual).
YORS Outcomes: Opioid Relapse-Free Survival

Study 1
(XR-NTX only)

Study 2
(Patient choice XR-NTX or XR-Bup)
• Yrs 1-2: intervention enhancement, 3 test cycles
• Yrs 2-5: larger RCT of enhanced YORS
Enhancement test cycles

- Test cycle #1: Covid adaptations
  - Use of telehealth
  - Mobile van delivery

- Test cycle #2: reSet m-health app

- Future
  - Parent peers?
  - Parent CM?
  - Home (or van) delivered counseling
  - Others?

Example of Innovative Intervention
Primary Care Delivery, Hub and Spoke

• MOUD in youth serving primary care (*spokes*)

• Consultation and support from regional special center (*hub*)

Example of innovative intervention
Youth OUD recovery housing

- Youth-specific
- OUD-specific
- Emphasis on MOUD, co-occurring disorder treatment, and accommodation to youth shenanigans
- Embedded in full continuum of care
Recommendations
Low hanging fruit

• Youth SUD providers should prioritize OUD treatment including use of MOUD
• Youth serving medical providers should identify OUD cases and treat with MOUD
• Typical upstream touchpoints should trigger assertive treatment outreach – OD, ED, medical hospitalization, psychiatric hosp

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Recommendations
Not-so-low hanging fruit

• Development of innovative approaches needed to improve engagement and retention, esp for high-severity, high-chronicity patients
A Call to Action

- We are at a crossroads
- We have an existing and emerging toolbox but an **alarmingly low level** of adoption and utilization
- Emerging research and clinical consensus support **aggressive treatment of youth** with OUD including MOUD
- Therapeutic optimism remains one of our best tools!
- We are saving lives, but we need to do better
- **Developmentally-informed assertive interventions** might help
- If not now, then when?

Hypothetical miracle cures?
Selected References


Thank you!

Questions?