



UW PACC

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

TELEHEALTH AND SUD TREATMENT- UNPRECEDENTED ACCESS WITHOUT RISK?

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SPEAKER DISCLOSURES

No conflicts or disclosures to report

PLANNER DISCLOSURES

The following series planners have no relevant conflicts of interest to disclose; other disclosures have been mitigated.

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OBJECTIVES

- Define what telehealth is
- Describe how telehealth is used for SUD treatment
- Highlight what the evidence says about using telehealth for SUD treatment
- Discuss lessons learned from using a phone app to deliver CM for Methamphetamine use
- Develop understanding around special considerations for SUD telehealth treatment

DEFINITIONS PER HRSA

- **Telehealth**

- The use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration

- **Telemedicine**

- Remote clinical services

- Clinical Visits
- Digital Medicine
- Digital Therapeutics
- Prescription Digital Therapeutics
- Remote monitoring
- Consultation



Examples

Synchronous and asynchronous visits
Phone apps
Automated Text messages

<https://www.healthit.gov/fag/what-telehealth-how-telehealth-different-telemedicine>
<https://integrationacademy.ahrq.gov/products/topic-briefs/behavioral-health-apps>

TELEHEALTH: NOT A NEW IDEA

- **This is not a new idea**
 - 1879 Article in Lancet → talked about using the telephone to reduce office visits (telephone patented in 1876)
 - 1928 Saurerbruch-German surgeon who used letters and phone calls for teleconsultation.
 - 1964 Mercury Space Programs. In preparation for longer space flights where a quick return to earth was not possible.
 - Monitor biomedical data and guide basic treatment steps remotely
 - 1973 Space Technology Applied to Rural Papago Advanced Health Care

TELEMEDICINE BACKGROUND

- **1996 Telecommunications Act**
 - Helped remove certain economic and legal barriers to use
- **2020 Pandemic-Public Health Emergency**
 - Modified Ryan Haight Act
 - Waived sanctions around data reports
 - Waived certain Medicaid and Medicare requirements
 - Expanded list of providers that could provide telehealth to Medicare patients
 - States changed their rules and required insurance coverage



ASAM American Society of
Addiction Medicine

Pandemic	Non-Pandemic
Initial in-person visit for Buprenorphine not required	Initial in-person visit for Buprenorphine required
Limited Urine Drug Testing	Baseline urine drug testing
Refills without in-person visits	In-person visits for refills
Consideration for delivery of meds (if quarantined)	N/A
More frequent check-ins by phone	Regular frequency

<https://www.asam.org/Quality-Science/covid-19-coronavirus>

The Rise of Virtual Visits in Health Centers in 2020

1 in 4 visits were virtual in 2020

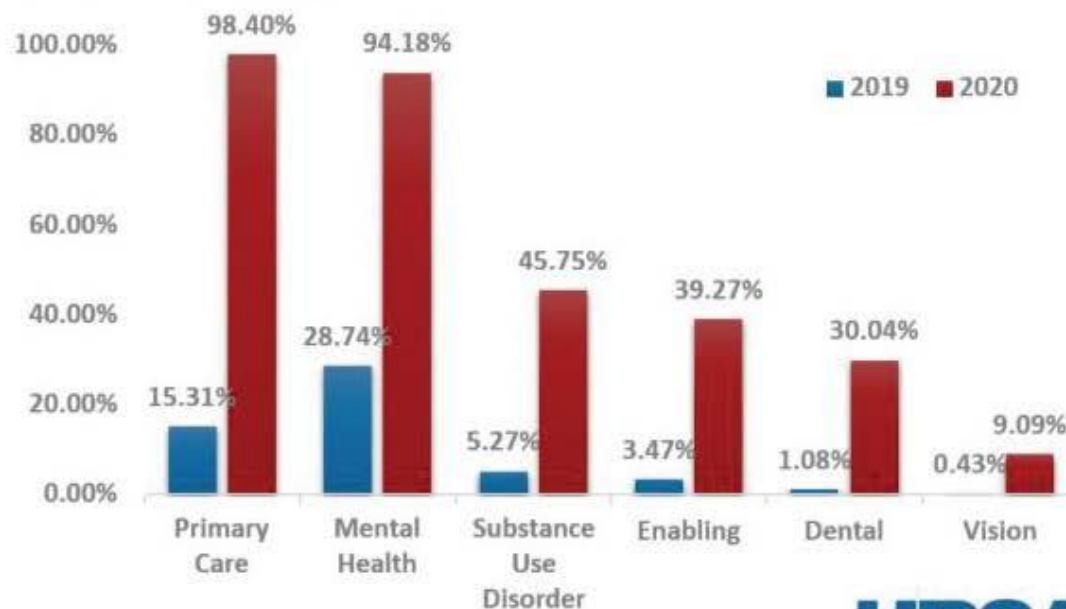
Top five services offered via telehealth

- ✓ Primary Care
- ✓ Mental Health
- ✓ Substance Use Disorder
- ✓ Chronic Conditions
- ✓ Nutrition and Dietary Counseling



99% of health centers offered virtual visits in 2020, compared to 43% in 2019

Percentage of health centers offering virtual services, by select service categories



Source: Uniform Data System, 2019-2020.

HRSA
Health Resources & Services Administration

FIGURE 1 | The Rise of Virtual Visits in Health Centers in 2020

SOURCE: Presentation by CDR Heather Dimeris, December 17, 2021.

Promise of Telehealth

- Remove barriers
 - Geography
 - Local resource availability
 - Transportation
 - Disabilities
 - Competing employment and family responsibilities
 - Stigma
- Improve Care
 - Remote monitoring
 - Revenue/Cost Savings
 - More patients
 - Efficiency
 - Continuity/follow-up
 - Better, quicker care to more people



LIMITATIONS TO USE OF TELEHEALTH

- Digital divide
 - Co-occurring serious mental illness
 - Unstable housing with substance use disorder
 - Access to broadband
- Security
- Privacy
- Impersonal?

Matthews EB, Lushin V, Rzewinski J. Patterns & Predictors of Telehealth Utilization Among Individuals Who Use Substances: Implications for the Future of Virtual Behavioral Health Services. *Community Ment Health J.* 2023 Jul 6. doi: 10.1007/s10597-023-01166-2. Epub ahead of print. PMID: 37410213.

Gajarawala SN, Pelkowski JN. Telehealth Benefits and Barriers. *J Nurse Pract.* 2021 Feb;17(2):218-221. doi: 10.1016/j.nurpra.2020.09.013. Epub 2020 Oct 21. PMID: 33106751; PMCID: PMC7577680.

HOW IS TELEMEDICINE USED FOR SUD TREATMENT?

Direct patient care

- Medications
- Psychotherapy
- Intensive outpatient programs

Remote monitoring

- Measurement based care
- Drug testing

Technology based stand-alone treatment (apps, computer based)

Augment in-person treatment

Mutual Help Groups



Does Telehealth work for SUDs?

Is it acceptable?

Is it effective?

Does it increase access?

Unintended consequences?

Growing evidence over years

- Opioids, Alcohol, Tobacco

Psychotherapy

- Individual and group
- On-site and off-site

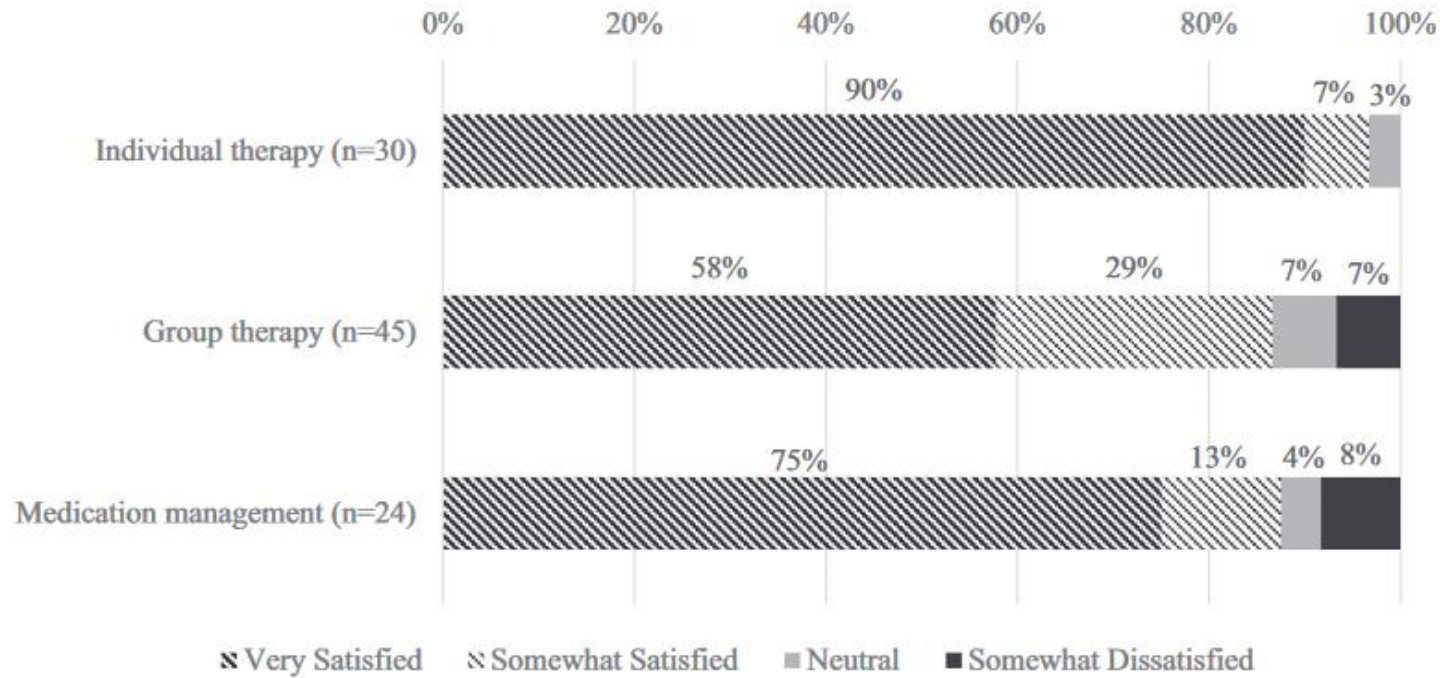
Medication

- Providers beamed into remote clinic
- Regulatory issues have slowed progress

Lin, LA et al, 2019

Is it acceptable?

- Yes



SUD Specialty Clinic-Groups, Med management
 N=58 (mostly white, male, well educated)

FIGURE 1 Telehealth satisfaction by treatment type

2021, Sugarman DE, et al, Am J on Addictions

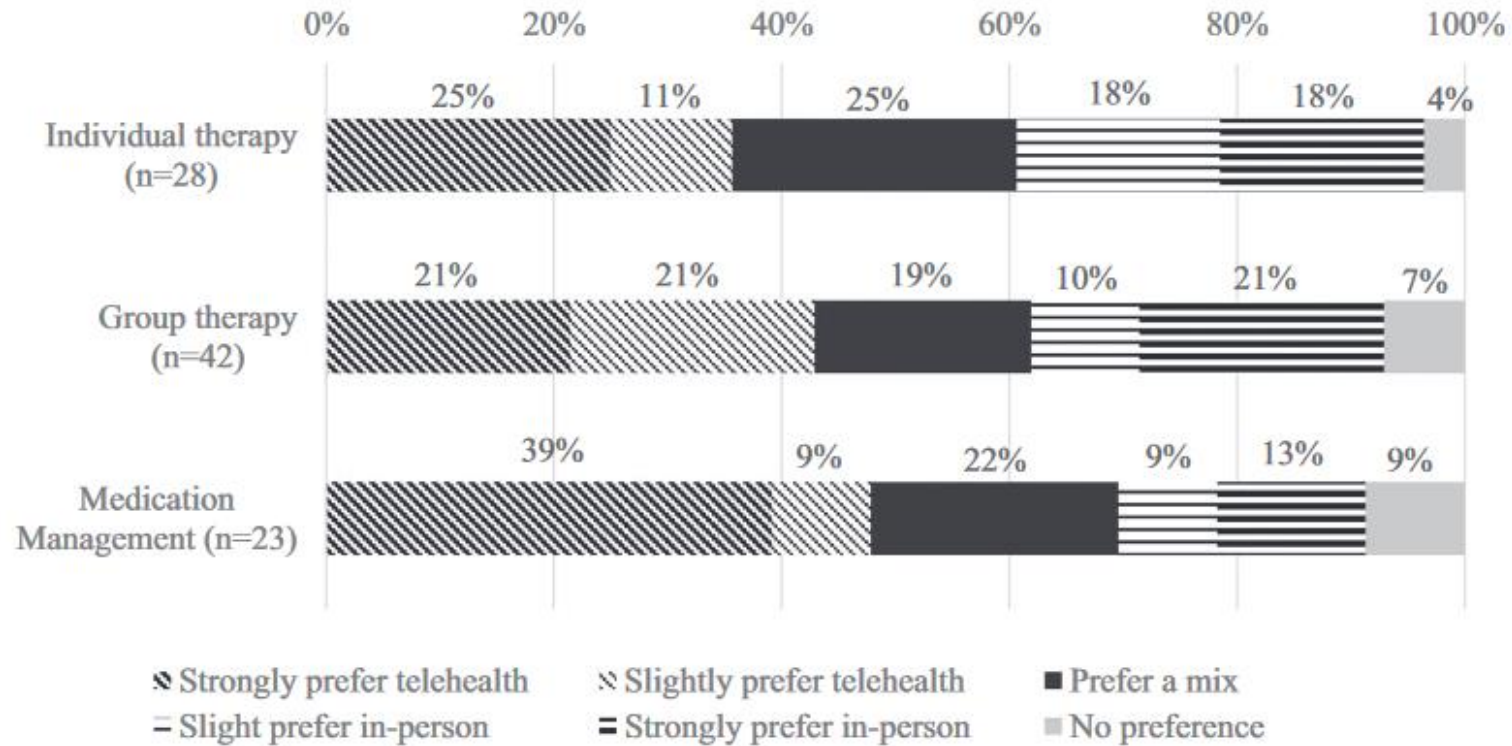


FIGURE 2 Preferred mode of treatment delivery by treatment type

SUD Specialty Clinic-Groups, Med management
 N=58 (mostly white, male, well educated)

2021, Sugarman DE, et al, Am J on Addictions

Did Not Like about Telehealth	Did like about Telehealth
<p>Don't connect well with other group members (28%)</p> <p>Potential for interruptions at home/work (26%)</p> <p>Like going to clinic and getting out of the house (19%)</p> <p>More likely to discuss difficult topics in person (17%)</p> <p>Don't connect as well with therapist (16%)</p> <p>Privacy concerns at home (14%)</p>	<p>I can do it from home (40%)</p> <p>I don't have to commute (83%)</p> <p>I don't have to sit in a waiting room (45%)</p> <p>I don't have to leave work (35%)</p> <p>It is easier to find an appointment time (33%)</p> <p>It makes childcare responsibilities easier (22%)</p> <p>It is easier to talk with therapist (16%)</p> <p>It is more confidential (12%)</p>

2021, Sugarman DE, et al, Am J on Addictions

It is effective?

TELEHEALTH FOR SUD TREATMENT REVIEW

- 6290 studies assessed → 17 RCTs
 - 6 studies used telehealth as replacement, 11 studies were in addition to in-person
- OUD, AUD, Cannabis, Multiple SUDs
- Telehealth Treatment Variations
 - Videoconference
 - Computer-based therapy
 - Add-on treatment
 - Text messages twice daily or weekly
 - Weekly 15min phone sessions
- **Results**
 - Evidence is uncertain to weak
 - Small sample size, attrition problems, randomized?
 - May improve adherence (web-based CBT)
 - Low strength evidence for text messaging → improve abstinence/decrease drinking amounts
 - Moderate strength evidence for phone calls → reduces readmissions for detox

IS TELEHEALTH A REPLACEMENT FOR IN-PERSON THERAPY?

- 1 Randomized Controlled, n=32, AUD
- In-person therapy + meds prn **VS** online therapy + meds prn
- 12 month follow-up

- **Results**

- No difference in days of any or excessive alcohol use

	In-person	Online
– Days of any or excessive alcohol use	44%	17%

Tarp K, Bojesen AB, Mejdal A, et al. Effectiveness of optional videoconferencing-based treatment of alcohol use disorders: randomized controlled trial. **JMIR Ment Health**. 2017;4:e38

CAN YOU USE COMPUTER-ONLY CBT WITH NO THERAPIST?

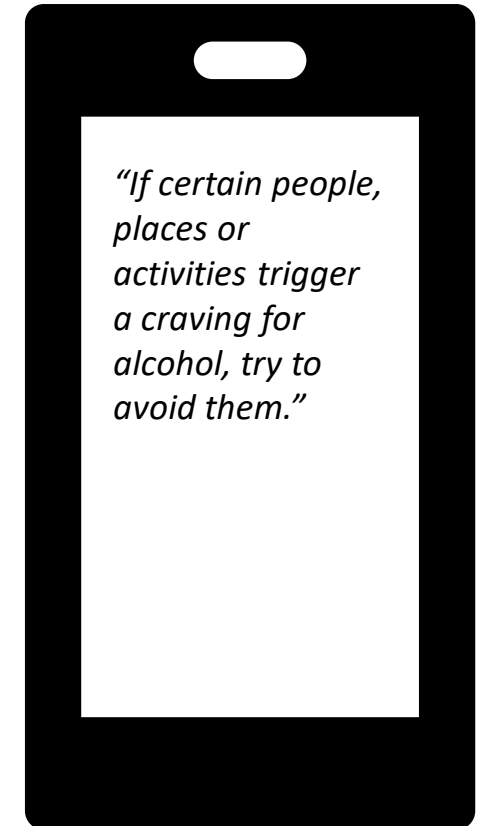
- 2 Randomized controlled trials for **Alcohol Use Disorder**
 - Trial 1: **Computer-based online CBT vs In-person CBT**
 - Trial 2: **Computer-based online CBT vs Online CBT therapist**
- **Results**
 - No difference between groups in overall abstinence from alcohol
 - No difference in days of any alcohol use
 - **No difference in quality of life at 8+ weeks**

Kiluk BD, Devore KA, Buck WB, et al. Randomized trial of computerized cognitive behavioral therapy for alcohol use disorders: efficacy as a virtual stand-alone and treatment add-on compared with standard outpatient treatment. **Alcohol Clin Exp Res.** 2016;40:1991-2000.

Sundström C, Eék N, Kraepelien M, et al. High- versus low-intensity internet interventions for alcohol use disorders: results of a three-armed randomized controlled superiority trial. **Addiction.** 2020;115:863-874.

TEXT MESSAGING SUPPORT

- 5 RCTs
- Intervention
 - Automated messages sent twice daily or weekly to encourage participants to self-monitor and reduce substance use behaviors.
- Results
 - 25 more days abstinent at 12 months vs standard care
 - Reduction in daily drinking, up to 4.4 units a day
 - No change in ED visits
 - No change in frequency of consumption if still drinking



HOW DOES TELEHEALTH IMPACT OUTCOMES?

- VA Retrospective Study from 2008-2017
 - N=28,791 across all VA sites, 93% male, 81% white, 50% between 25-44yo
 - 73% also had diagnosis of depression, 40% PTSD
- Diagnosed with OUD and treated with Buprenorphine
- Telehealth visits included med management and counseling

- Results
 - Engagement in telehealth was associated with a **lower risk of treatment discontinuation** (aHR 0.69)

HOW DOES TELEHEALTH IMPACT OUTCOMES?

- Medicare Cohort study

	Before COVID 9/2018-2/2020	During COVID 9/2019-2/2021
Number	105,240	70,538
Receipt of OUD Telehealth	593 (0.56%)	13,829 (19.61%)
Received Buprenorphine	4566 (4.3%)	3184 (4.6%)
80% Bup adherence	31.07%	33.26%
Treated overdose	19,491 (18.5%)	13,004 (18.4%)

In Pandemic group

- If received OUD telehealth services → increased odds of better retention (aOR 1.27)

Implications: As good as in-person, but not necessarily better.

PHONE APP WITH CM SHOWS PROMISE FOR AUD

- Results

- D. *Urine drug testing results at monthly research assessments.[†]*

	<u>DynamiCare (N=29)</u>				<u>TAU (N=32)</u>			
	Research Assessment				Research Assessment			
	1	2	3	4	1	2	3	4
Abstinent n (%)	10 (35)	9 (31)	11 (38)	8 (28)	7 (22)	7 (22)	4 (13)	3 (9)
Non-abstinent n (%)	2 (7)	4 (14)	2 (7)	2 (7)	2 (6)	2 (6)	2 (6)	2 (6)
Missing n (%)	17 (59)	16 (55)	16 (55)	19 (66)	23 (72)	23 (72)	26 (81)	27 (84)

Monthly Timepoints

[†] Abstinent results include those that were negative, as well as those results that were consistent with the participant's prescriptions or cannabis card.

PHONE APP WITH CM SHOWS PROMISE FOR AUD

- Results
 - 45% rated it as a positive intervention

Endorsement of helpful app features.[†]

What features of the app program where helpful?	% Endorsing (n = 13)
Surprise testing kept me on my toes	92
Earning money for staying abstinent	77
Monitoring my own behavior	69
Making recovery enjoyable	69
Being in charge of my own test	54

[†] Responses obtained at 1 month postrandomization. The response rate for the satisfaction survey was 45%.



How has telehealth impacted access to SUD treatment?

TELEHEALTH ACCESS HIGHLIGHTS

- On-Demand, Audio Only Buprenorphine Telehealth
 - Grant funded
 - Rhode Island
- 24/7
 - Staffed by 6 providers
 - Care navigators
- Bridge clinic
- Buprenorphine Initiation
- Does not bill for visit

ON DEMAND PHONE BUP CLINIC

- 60% male, mean age 40
 - Majority of callers in opioid withdrawal (66%): SOWS-26.8 (4-57)
 - 17% reported overdose in preceding 12 months
- Majority of callers have prior addiction treatment experience
 - 7.6% in treatment at time of call
- 2/3 of callers had taken buprenorphine previously – prescribed and/or non-prescribed

ON DEMAND PHONE BUP CLINIC

- 134 calls
- 103 Buprenorphine prescriptions
 - Not prescribed: no OUD (4), declined Rx (1), already in care (2), triaged to higher level of care (1), unable to participate in interview (4), not listed (11)
- 94 new prescriptions
 - 65 filled **subsequent** buprenorphine prescription in 30 days
- Other notes
 - Advertised on social media and late-night TV

DOES TELEHEALTH INCREASE ACCESS?

- Cohort study, Commercial insurance or Medicare Advantage
- Compared
 - **Before COVID 3/2019-3/2020 vs During COVID 3/2020-3/2021**
 - **Low Telemedicine providers vs High Telemedicine providers**
- **Results**
 - No change in total visit volume
 - No change in MOUD initiation

***Implications:* Increased telehealth options DID NOT lead to providers providing more OUD treatment.**



Unintended Consequences?

Increased treatment instability?

Increase in overdose risk?

Diversion?

WOULD RELAXATION OF REGULATIONS CAUSE PROBLEMS?

Observed Changes during Public Health Emergency

- Increase in prescribing flexibility
 - Buprenorphine
 - Methadone
- No need for initial in-person visits
- Reduced urine drug screens

WOULD RELAXATION OF REGULATIONS CAUSE PROBLEMS?

- Methadone clinics in Connecticut (N=29)
- Patients: 24,261
- Practice Changes
 - Take-home doses
 - Drug testing frequency
 - In-person vs telehealth visits

Changes in clinic practices	Before COVID-19	After COVID-19	Change
Take-home Doses			
28-day take-home doses	0.1% (25)	16.8% (4076)	16,700%
14-day take-home doses	14.2% (3445)	26.8% (6499)	89%
4 to 6-day take-home doses	13.3% (3236)	15.3% (3710)	15%
3-day take-home doses	16.8% (4069)	20% (4853)	19%
2-day take-home doses	18.1% (4383)	11.5% (2789)	-36%
≤1-day take-home doses	37.5% (9103)	9.6% (2333)	-74%

Changes in clinic practices

Before COVID-19 **After COVID-19** **Change**

Drug testing frequencies

8 times per year

84.9% (20,608)

92.2% (22,375)

9%

Once or twice a month

12.5% (3042)

2.9% (692)

-77%

Weekly

2.5% (612)

1.7% (418)

-32%

Random

0%

1.2% (287)

-

No testing requirement

0%

2% (488)

-

Changes in clinic practices

Before COVID-19 **After COVID-19** **Change**

In-person individual counseling	57.5% (13,962)	9.3% (2263)	-84%
In-person group counseling	42.5% (10,299)	8.2% (1996)	-81%
Telehealth individual counseling	0%	75.2% (18,244)	-
Telehealth group counseling	0%	7.2% (1758)	-
In-person case management	46.3% (11,231)	13.9% (3384)	-70%
Telehealth case management	0%	32.3% (7846)	-
No case management	12.5% (3030)	12.5% (3030)	0%
In-person patient evaluations	77.8% (18,883)	55.6% (13,480)	-28%

WOULD RELAXATION OF REGULATIONS CAUSE PROBLEMS?

- There was **NO increase** in methadone-related fatal overdoses

Period	All opioid fatalities		Methadone-only fatalities		All methadone-involved fatalities		Opioid fatalities not involving methadone	
	Number		Number	%	Number	%	Number	%
April–August 2015 through 2019	1972		74	3.8%	181	9.4%	1791	90.6%
April–August 2020	539		22	4.1%	59	10.9%	480	89.1%
X ² value vs. other opioids			1.803		1.539			
p-value			0.406		0.215			

WHAT ABOUT DIVERSION?

- Cross sectional study of Medicare Advantage Claims
- Buprenorphine Inductions from 1/2020-4/2021
 - Telemedicine vs In-person
- N=2703 Buprenorphine Inductions
 - 13.9% were via telemedicine
 - No difference in patients (severity or complexity) between the telemedicine group and the in-person group
 - If 70+ year's old → in-person visit/induction
 - Lower income county → in-person/induction

**Implications: There was no overuse of telemedicine.
No change in diversion risk from baseline.**



UW Pilot Study: Phone App for Contingency Management

CONTINGENCY MANAGEMENT APP FOR METH DYNAMICARE [HTTPS://WWW.DYNAMICAREHEALTH.COM/](https://www.dynamicarehealth.com/)

- UW Psychiatry Department Garvey Grant Pilot
- Goal N=30
- Study lasts 3 months (after patient enrolls)
- Patient eligibility:
 - Patient within UW Medicine system
 - Age > 18
 - Self-report methamphetamine use (5-9 days out of last 30) and desire to reduce use

No phone or data plan?

- One-time phone/data plan can be provided by study
- Limited number

STUDY FLOW

Clinician will provide flyer and brief study summary to patient*

Pt. will call study phone, if interested

Research coordinator (RC) to complete screening and informed consent with patient (via phone)

RC to connect pt. to DynamiCare enrollment specialist

*alternative: EPIC dot phrase sent to research team

DYNAMICARE APP

- Enrollment specialist to assist with:
 - Downloading app
 - Receiving testing materials
 - Facilitating connecting with “recovery coach”
- ~Weekly meetings with “recovery coach”:
 - Peer/therapeutic, but non-clinical support
- Financial rewards for:
 - Negative methamphetamine tests (saliva-based test)
 - Meetings with recovery coach
 - CBT modules
 - DynamiCare Surveys

STUDY RESULTS

- Enrollment
 - 34 participants screened
 - 28 enrolled
 - 15 received intervention (graduated from “welcome period”)
- Easily adopted by both primary care and specialty clinics
 - Cardiology
 - HIV
 - SUD
- Free smart phone availability was challenging

Table 2. Engagement with intervention, among the N = 15 patients who received the intervention.

		N (%)
Substance tests completed ^a	10-33%	9 (60%)
	34-66%	3 (20%)
	67-94%	3 (20%)
Substance tests showing recent (meth)-amphetamine abstinence ^a	0-33%	14 (93%)
	34-66%	0 (0%)
	67-100%	1 (7%)
Coaching calls completed ^b	0-4	8 (53%)
	5-8	4 (27%)
	9-24	3 (20%)
CBT modules completed ^c	0-11	9 (60%)
	12-23	4 (27%)
	24-35	2 (13%)
Rewards earned ^d	\$37-\$107	8 (53%)
	\$108-\$177	5 (33%)
	\$178-\$246	2 (13%)

Note. ^a Percentages are calculated based on the number of substance tests prompted by the app: M=24.9, SD=4.0 tests prompted per patient. ^b Participants were encouraged to complete 1 coaching call per week for the 12-week program but could complete additional coaching calls as desired. ^c 35 CBT modules were available. ^d In total, participants could earn ~\$465 if they completed all intervention components and had complete (meth)amphetamine abstinence. CBT = cognitive behavioral therapy. Response categories reflect the ranges observed across participants who received the intervention (e.g., no participants completed <10% or >94% of substance tests).

Table 3. Intervention usability ratings, as reported on the Modified mHealth App Usability Questionnaire (MAUQ) at intervention week 6 (n = 12).

Modified mHealth App Usability Questionnaire item	Neither					Strongly disagree
	Strongly agree	Agree	Some-what agree	agree nor disagree	Some-what disagree	
Ease of use questions						
The program was easy to use.	5	6	1			
It was easy for me to learn to use the program.	4	7	1			
I like the program.	6	6				
The program was well organized, so I could easily find the information I needed.*	3	7	1			
I feel capable of using this program.	7	4	1			
Satisfaction questions						
I would use this program again.	7	4	1			
Overall, I am satisfied with the program.	6	5	1			
The program is an acceptable way to receive help with substance use.	5	5	2			
The program does what I expected it to.	3	8		1		
Usefulness questions						
The program would be useful for my health and well-being.	5	7				
The program improved my access to healthcare services.	3	2	3	4		
The program helped me manage my substance use effectively.	2	4	3	3		
I felt confident that any information I sent to my recovery coach using the app would be received.	7	3	1	1		
I felt comfortable communicating with my recovery coach using the app.	5	4	2	1		
		Much too short	A little too short	Just right	A little too long	Much too long
Additional items						
On a day-by-day basis, the amount of time it takes to participate in the program is:		1	10			
The three-month duration of this program seems:	1	4	5	1		

STUDY SUMMARY

- Participants had variable rates of engagement with the intervention, potentially due in part to co-occurring SUDs, mental health conditions, and socioeconomic factors.
- More hands-on, human-to-human connection may be needed to increase engagement, especially during early phases of the intervention.
- Participants who received the intervention found it easy to use and satisfactory.
- Impressions were slightly more mixed regarding the intervention's usefulness.
- Modifications to the intervention may be warranted to increase the perceived usefulness of the intervention.
- Future studies could utilize a longer intervention period with greater financial incentives to potentially improve engagement and clinical outcomes.

SHOULD YOU OFFER TELEMEDICINE FOR SUDS?



SUMMARY

- Telehealth is acceptable and as effective as in-person care
- Telehealth can take many forms and has the ability to increase access across clinical settings
- Flexibility related to telehealth is valued
- Telehealth is not a replacement for in-person care
- Telehealth is likely not going to solve the treatment need for SUDs

Thank You

UW Psychiatry and Addiction Case Conference

Online webinar

Monthly OUD related topic

Reviews spectrum of substance use and mental health issues

Free, Thursdays, online, all providers

<https://ictp.uw.edu/programs/uw-pacc>

UW Provider Consultation Line

Free 24/7 hotline for prescribers and non-prescribers for psychiatry and addiction questions.

877-WA-PSYCH

<https://psychiatry.uw.edu/clinical-care-consultation/provider-consultation/psychiatry-consultation-line-pcl-faqs/>

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