Helping Assess Rural MOUD: Novel Office-based Treatment (HARM NOT)

Theresa Coles, PhD,[1,*] Hillary Chen, MPH,[1] Andrea Des Marais, MPH,[1] Christopher Bush, MPH,[1] Nidhi Sachdeva, MPH,[1] Lisa Harrison, MPH [2] Shauna L. Guthrie, MD, MPH, FAAFP [2]

[1]Department of Population Health Sciences, Duke University School of Medicine, Durham, North Carolina; [2]Granville Vance Public Health, North Carolina

Department of Population Health Sciences
Duke University School of Medicine

BACKGROUND

- In 2019, opioid-related overdose deaths in North Carolina occurred at a rate of 17.2 deaths per 100,000 (NC DHHS, 2021)
- Granville and Vance are two rural NC counties (total population is approximately 100,000) that have some of the highest opioid-related death rates (Haffajee, Lin et al. 2019) with 19.1 deaths per 100,000 in 2019 (NC DHHS, 2021)
- Medication for opioid use disorder (MOUD) is an evidence-based way to treat opioid use disorder (OUD), especially when combined with psychosocial treatment and support
- To connect patients with needed MOUD services, Granville Vance Public Health established an MOUD program via its primary care clinics in January 2018
- The Granville Vance Public Health office-based opioid treatment (OBOT) program offers:
  - Medication for opioid use disorder
  - Group (started Jan. 2019) or individual medical visits
  - Psychosocial support
  - Infectious disease testing (HIV, Hepatitis C)
  - Hepatitis C treatment
  - Immunizations (flu, hepatitis A, B, C)
- The OBOT program is based on a harm reduction model, working to minimize the harmful effects of drug use by taking a non-judgmental approach to care rather than condemning or criminalizing patient behaviors

OBJECTIVES

- Describe patient characteristics and outcomes from a novel OBOT program in rural North Carolina using a mixed-methods approach
- Describe the evolution of the novel program, including training and operational challenges and facilitators and identify patient-centered goals and definitions of success.

REFERENCES

- Haffajee RL, Lin LA, Bohnert ASB, Goldstick JE. (2019) Characteristics of US Counties With High Opioid Overdose Mortality and Low Capacity to Deliver Medications for Opioid Use Disorder. *JAMA Netw Open* 2(6): e196373.
- Kroenke K, Spitzer RL, Williams JBW. (2001) The PHQ-9: validity of a brief depression severity measure. Journal of General Internal Medicine 16(9): 606-613.
- NC Department of Health and Human Services (NC DHHS). (2021) Opioid Action Plan Data Dashboard. https://www.ncdhhs.gov/about/department-initiatives/opioid-epidemic/opioid-action-plan-data-dashboard. Accessed March 3, 2021.
- Spitzer RL, Kroenke K, Williams JBW, Löwe B. (2006) A Brief Measure for Assessing Generalized Anxiety Disorder: The GAD-7. *Arch Intern Med.* 166(10):1092–1097.

Contact Information
Theresa Coles | Email: Theresa.Coles@Duke.edu

This poster was prepared for the Rx Drug Abuse & Heroin Summit, April 5-8, 2021.

METHODS

Mixed-methods approach (Concurrent Nested (Embedded Design)) with the primary method as qualitative

Quantitative: descriptive analysis of patient characteristics, including demographics, treatment retention, anxiety and depression outcomes

- Data were collected by Granville Vance Public Health for all patients who entered the program January 2018-July 2020
- Depression was evaluated using Patient Health Questionnaire (PHQ-9) (Kroenke, 2001) and anxiety was measured using the General Anxiety Disorder (GAD-7) (Spitzer, 2006). PHQ-9 and GAD-7 questionnaires were administered at each visit

Qualitative: in-depth one-on-one phone interviews with patients (n = 7) and clinicians/staff (n = 4) to describe OBOT program evolution, challenges, and outcomes

- Interviews were conducted June 2020-February 2021
- Participants provided verbal consent
- Trained interviewers followed a semi-structured interview guide
- Patients were offered a $30 gift card for participation
- All interviews were recorded and transcribed

This study was approved through the Duke Health Institutional Review Board

RESULTS

Quantitative Results

From January 2018 to July 2020, clinicians saw 79 patients, including 1478 visits (average of 18 visits per patient; one visit per month).

Table 1. Characteristics of program participants

N participants	79
Age, mean (SD)	39.6 (10.9)
Female, N (%)	43 (54.4)
Black, N (%)	14 (17.7)
White, N (%)	58 (73.4)
Private insurance, N (%)	15 (19.0)
Public insurance, N (%)	44 (55.7)
Uninsured, N (%)	20 (25.3)

RESULTS

Quantitative Results *Cont.*

Table 2. Retention in treatment from January 2018 to July 2020 by program status

N participants	Active 35	Inactive 44	Overall 79
Retention in treatment (months), mean (SD)	18.4 (8.1)	4.7 (5.1)	10.8 (9.5)
Retained in treatment for 3 months, N (%)	35 (100.0)	23 (52.3)	58 (73.4)
Retained in treatment for 6 months, N (%)	34 (97.1)	11 (25.0)	45 (57.0)

Active = patients currently in the program; Inactive = patients who have left the program.

- Drug screenings conducted as part of the program show a reduction in opioid and other drug use over time (Table 3).

Table 3. Urine Drug Screen Results (n = 79)

Urine Drug Screen Results	N (%)
Positive opioid first 3 months, N (%)	25 (31.6)
Positive opioid months 6-12, N (%)	14 (17.7)
Cocaine, Benzodiazepine, or Marijuana use in first 3 months, N (%)	39 (49.4)
Cocaine, Benzodiazepine, or Marijuana use in months 6-12, N (%)	27 (34.2)

- Among active participants, improvements in median patient-reported depression and anxiety scores were observed as patients progressed through the program (Table 4)
- The proportion of individuals in the program with moderate-to-severe depression (PHQ-9 scores >=10) at program initiation was 66%, and at the most-recent assessment, reduced to 34%.

Table 4. Change in Patient-Reported Depression and Anxiety Scores

Measure Name	Outcome Measured	Initial assessment (N=35), Median (IQR)	Most recent assessment (N=32), Median (IQR)	Change (most recent – initial) (N=32), Median (IQR)
Patient Health Questionnaire (PHQ-9)	Depression	10.0 (6.0, 19.0)	4.0 (2.0, 10.0)	-5.0 (-10.5, -1.0)
General Anxiety Disorder (GAD-7)	Anxiety	13.0 (7, 16)	4.5 (0.5, 10)	-5.0 (-11.0, -1.0)

PHQ-9: higher scores indicate worse depression; GAD-7: higher scores indicate worse anxiety; IQR = interquartile range

Qualitative Results

Patient expectations about the program

- Patients first heard about the program from other friends, family members, community members, or directly via the health department
- Patients noted a number of worries or concerns they had before entering the program including:
  - Efficacy of the program and having a relapse
  - Fear of withdrawal symptoms
  - Uncertainty about what the group sessions would be like
  - Being accepted into the group or fear of judgement from the group
  - Uncertainty about what it would feel like to be among individuals who also use drugs again

Qualitative Results *Cont.*

Facilitators of success in the program

- Social support from other patients in the group sessions, including helping out with transportation and providing emotional support
- Shared sense of compassion, culture of honesty and respect
- Very positive interactions with clinic staff, with some expressing honesty is highly valued in their interactions with the clinicians
- Availability of providers to address questions or needs
- Connecting patients with affordable or donated clothes, furniture, appliances, and job opportunities
- Trusting relationships among patients and clinicians providing MOUD were cited as one of the most important facilitators of success

> *"I found a doctor that I can confide anything into. I didn't expect that, because some doctors, I don't feel comfortable around. And the open friendship that we all have in the group program, it's not what I expected."*

Barriers to success of the program

- Inconsistent funding, leading to lapse in service access
- Lack of a dedicated behavioral health counselor
- Lack of reliable transportation to clinic for patients, which causes some missed visits

Perceived Impact of the Program

- Patients said the program has helped them become more "stable," some reporting that they've been able to improve relationships, secure a job or housing, and work toward future goals like attending school
- While some participants still used other drugs, many described a sense of success in that the program allowed them to shift their time and energies from avoiding opioid withdrawal symptoms to being in the moment and pursuing activities that bring them joy

> *"…the quality of life has improved drastically because of the time and the issue of having to look for the opioids every day. It took time away from family, time away from things you want to do, time away from things you need to do. I got money in my pocket now where I didn't before."*

- Clinicians indicated that the program influenced patients' confidence because of the focus on harm reduction and longer-term success with OUD rather than an "all-or-nothing" approach

> *"We measure success differently than abstinence-based programs […] I know a lot of our patients who have been in NA programs before and have, quote, "failed" in those programs, that's harmful to your confidence in yourself and your ability to succeed at things. So, I think from the harm reduction standpoint, we just measure success differently, and I think that intrinsically benefits patients better ultimately."*

COVID Impacts

- During the COVID-19 pandemic, many patient visits have been conducted via telemedicine or phone – while this can help address transportation issues, patients report missing the social connections from the group sessions

Suggestions for rural health departments interested in starting their own OBOT program

- Start small and ramp up slowly to seeing more patients
- Seek mentorships/guidance from other health departments with OBOT programs
- Integrate mentorship around harm reduction principles for new clinicians or staff into your health departments program

STRENGTHS & LIMITATIONS

- A strength of this study is that multiple methods were used to describe experiences with the OBOT program.
- Weaknesses include:
  - Interview participants were limited to individuals who were currently in the program or serving the program, which by nature includes only individuals who want to be in the program
  - Lack of control group for comparison

CONCLUSIONS

- Granville Vance Public Health's OBOT program successfully reduced opioid use, depression, and anxiety among enrolled patients
- Harm reduction approach was consistently mentioned by patients as important drivers to their success in the program:
  - Trust among patients and clinicians
  - Non-judgmental and non-punitive approach
  - Patient-identified indicators of success
- Rural health departments interested in getting started would benefit from being connected with other rural health departments who already have a program