



RESEARCH ARTICLE

Bridging the Gaps in Women's Primary Care for Those Treated at a Residential Drug Treatment Facility in Southwest Ohio

Anna Squibb¹; Bradley Subler²; Tongfan Wu³; Vijay K. Rings³; Khadijah C. Collins³

¹Department of Family Medicine, Division of Addiction Medicine, Wright State University Boonshoft School of Medicine, Dayton, OH

²Department of Psychiatry, Wright State University Boonshoft School of Medicine, Dayton, OH

³Wright State University Boonshoft School of Medicine, Dayton, OH

Corresponding Author: Anna Squibb, 725 University Boulevard, Fairborn, OH 45324, (937) 245-7200, anna.squibb@wright.edu

Submitted January 31, 2023 Accepted May 24, 2023 Published August 7, 2023 <https://doi.org/10.18061/ojph.v6i1.9377>

ABSTRACT

Background: Patients with substance use disorders (SUD) have higher rates of sexually transmitted infections (STI) and limited utility of preventive and outpatient primary care. Women with SUD are a particularly vulnerable population requiring consistent primary and reproductive health care. This study evaluated the need for providing women's primary health care to patients in a residential SUD treatment facility in rural southwest Ohio.

Methods: A retrospective chart review was conducted using intakes at a female-only residential SUD treatment facility from 2021-2022. Variables recorded in this study were: 1) patient-reported substance use; 2) laboratory screenings for hepatitis B, hepatitis C, HIV, and STIs; 3) reproductive history (contraceptive, Papanicolaou (Pap) test, and pregnancy history); 4) patient-reported connection with a primary care provider (PCP); and 5) patient-reported mental health disorders. The analysis provided descriptive statistics to identify comorbidities and trends in women with SUD.

Results: All completed intake charts were reviewed (n=159) without exclusions. No current PCP was reported in 59% of patients. Papanicolaou tests were needed in 50% of patients, and, of those completed, six (21%) had abnormal results. Almost 20% of patients were found with a positive STI, with highest prevalence of trichomoniasis (23%). Viral infection rate was 42%, the most common being hepatitis C (35% with active infection). Patient-reported comorbid psychiatric illness was 90%, the most common being generalized anxiety disorder (GAD) at 67.3%.

Conclusion: This study supports the need for whole person primary care in residential SUD treatment facilities, particularly in respect to viral and sexually transmitted infections, and for overall women's health.

Keywords: Substance use disorders; Sexually transmitted infections; Contraception; Primary care; Women's health

INTRODUCTION

Individuals with substance use disorders (SUD) are an extremely vulnerable population. Regular access to quality care is limited due to multiple barriers including intersecting risk factors of mental health, Medicaid insurance, and geographic limitations (specifically areas with less access to primary care and substance use disorder treatment).¹⁻⁷ Often, individuals seeking care for substance use disorders are at an increased risk for health problems and experience higher rates of mental health comorbidities, sex-

ually transmitted infections, hepatitis, lack of preventive care and psychosocial risk factors including domestic violence and sexual assault.¹⁻⁸ National addiction medicine and specialty specific guidelines address this need and provide recommendations for evidence-based care of this population.^{8,9} Specifically, the American Society of Addiction Medicine (ASAM) provides national practice guidelines for standards of care based on specific substances and for whole person care for patients seeking care for SUDs. These guidelines address comorbidities, medical complications





common to persons with SUDs, and the critical importance of coordination of care.¹⁰

The American Academy of Family Physicians (AAFP) provides guidelines for primary care providers (PCPs) for best practices in treating persons with SUDs, highlighting management of the above noted common comorbidities, medical complications, and coordination of care.⁸

Population-based data pertaining to preventive care access, SUDs, and mental health disorders are available in Greene County (Ohio), Ohio at large, and nationally. In 2018 in the geographic area of this study, 80% of persons in Greene County saw a PCP in the last year, similar to 81.9% nationally.¹⁰ Additionally, in 2020 in Greene County, 69% had a Papanicolaou (Pap) test in the last 3 years, versus 80% nationwide in 2018.¹⁰ With regard to rates of self-disclosed mental health disease, crude prevalence of a depressive disorder was 22% in Ohio and 19.6% in the nation.¹⁰ However, it is difficult to ascertain or assess the rates of primary care access, preventive care services, and mental health care in this region for the subpopulation of those persons seeking care for SUDs. It is presumed, but not easily determined, that this population would have less access and worse data measures for these basic health care necessities.

Despite specific population data, the risk of SUDs on overall health is a topic that has not been researched extensively. Preventive health screening decreases the morbidity associated with substance-use related medical complications.^{2,4,5} Additionally, drug use plays a role in the spread of sexually transmitted infections and viral illnesses, including HIV, by increasing the likelihood of high-risk sex with infected partners.^{1,2,11,12} As this study's population of focus was women seeking care for SUDs, it is important to note that women with SUD have associated poorer overall sexual and reproductive health, including increased sexually transmitted infections, less utilization of contraception, increased rates of unplanned pregnancy, adverse pregnancy outcomes, and high rates of children in out-of-home care than the general population.^{3,5,13-17} Yet, too often this population does not receive proper care due to lack of access to affordable and accessible health care as well as

limited trust in the health care system.⁶ Physicians often are uncomfortable and uncertain in their approach to treating SUD patients for multiple reasons including biases and limited training, while SUD patients are often concerned that they will be mistreated and judged by physicians.⁷

Given the health risks associated with SUDs, SUD treatment facilities are optimally poised to administer primary health care screenings, including screenings at admission for HIV, cervical cancer, hepatitis B, hepatitis C, and various sexually transmitted infections (STIs). In the present study, we examined the rate of positive screening results for these health conditions through a retrospective chart review from intakes of women admitted to a female-only, residential SUD treatment facility in southwest rural Ohio. Our goal was to evaluate the need for screening as well as primary health care for women with SUD.

METHODS

This study applied a single-center retrospective chart review of 159 women with SUD admitted to a female-specific ASAM 3.5 residential treatment facility in southwest Ohio from May 2021 to May 2022. Data derived from patient medical records included demographic information, patient-reported substance use, mental health disorders, results from STI screenings, results from viral disease screening, Papanicolaou test history, contraceptive use, pregnancy rates, and whether or not patients previously had a PCP. Descriptive analysis of the chart review was conducted to produce frequency data and rates related to comorbidities and patient outcomes.

Inclusion criteria were all patients admitted May 2021 to May 2022 who completed intake history. Excluded patients included those admitted but left against medical advice prior to completion of the intake history.

RESULTS

The general patient demographic information is summarized in Table 1. The mean age of patients was 37.2 ± 9.6 years ($n = 159$). Most patients were White (91.2%), while Black patients represent-

Table 1. Patient Demographic Data (n = 159)

Demographics	Mean \pm STD
Age, y	37.2 \pm 9.6
Race	N (%)
White	145 (91.2)
Black	9 (5.7)
Other	5 (3.1)
Insurance	N (%)
Medicaid	135 (84.9)
Medicare	5 (3.1)
Private	1 (0.6)
None	18 (11.3)
Has a PCP	66 (41.5)



ed 5.7% of the study population and the remaining percentage identified as neither/other (3.1%). Most of the residents were insured with Medicaid (84.9%), and 11.3% do not have any insurance. Sixty percent of the patient population reported not having a PCP.

The results of self-reported substance use are summarized in Figure 1. The most common substance used was methamphetamine (101), followed by opioids (54), alcohol (13), cocaine (11), and marijuana (1).

Sexually transmitted infection and viral diseases testing results are summarized in Figure 2. The STI screening revealed a 20% overall positivity rate with trichomoniasis (22.7%) being the most common STI, followed by syphilis (5.1%), chlamydia (3.4%), gonorrhea (0.1%), and HIV (0.1%). Viral disease screening revealed a 41.5% positivity rate for any current viral illness, with hepatitis C accounting for 35% of the positive rates, followed by hepatitis B (5.1%) and one case of HIV (0.1%).

The results of self-reported mental health are summarized in Figure 3. Of this patient population, 143 (89.9%) reported some men-

tal health disorder. The most common mental illness by patient's self-report was general anxiety disorder (GAD) (67.3%), followed by major depressive disorder (MDD) (46.5%), posttraumatic stress disorder (PTSD) (36.5%), bipolar disorder (BPD) (28.9%), and schizophrenia (1.9%).

Patient reproductive health history is summarized in Figure 4. Of all patients at the residential treatment facility, 50% needed a Papanicolaou test. However, only 40% of those needing a Papanicolaou test gave permission to receive one. Of those who received a Papanicolaou test, 30% were abnormal and needed a colposcopy. The use of contraceptives was also evaluated, and 60% of patients utilized a method of contraception. However, surgical methods such as hysterectomies and tubal ligations comprised the majority of the contraceptive method, instead of reversible options such as short-term and long-acting reversible contraceptives (LARC).

DISCUSSION

This study highlights the role of substance use treatment settings in providing whole person primary care as recommended in the

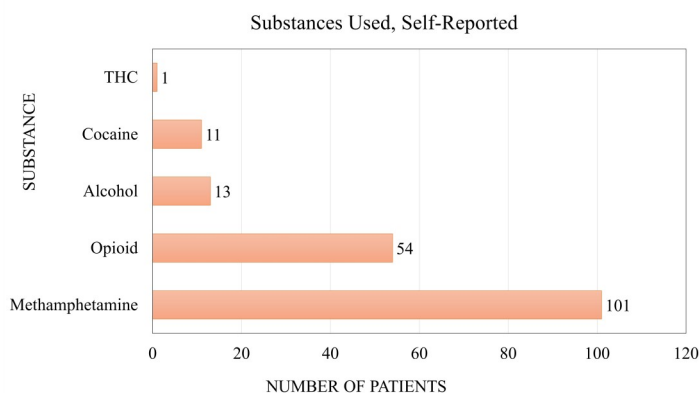


Figure 1. Patient Reported Substance Use (n = 159)

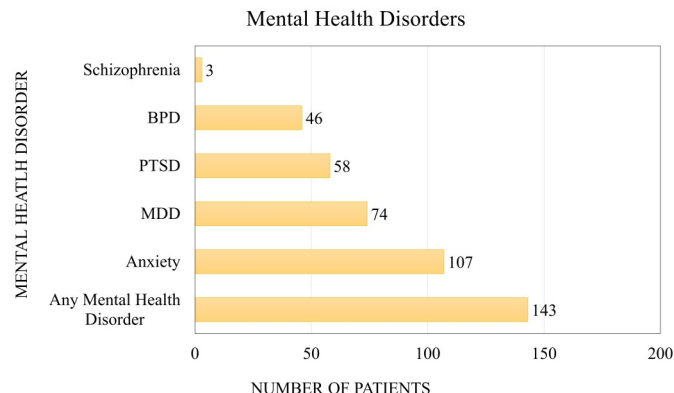


Figure 3. Patient Reported Mental Health Disorders (n = 159)

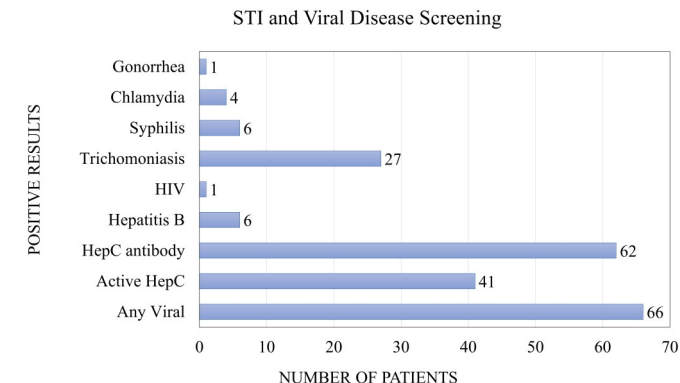


Figure 2. Positive Screenings for STIs and Viral Diseases

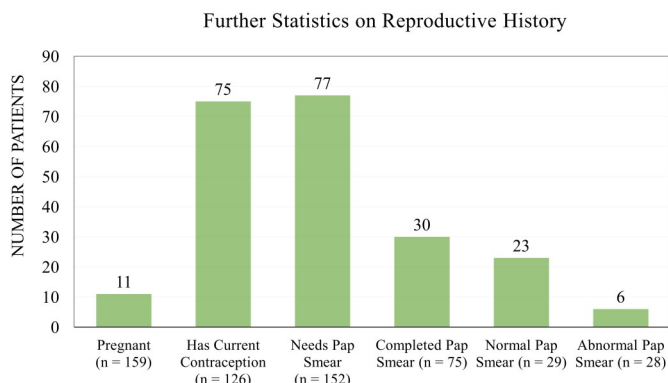


Figure 4. Reproductive Health History (n = variable)



ASAM and AAFP⁸⁻⁹ guidelines for persons with substance use disorders. The data and metrics recorded in this study began as a quality improvement process. Of note, this particular care location, prior to May 2021, did not screen for any viral infections, sexually transmitted infections, or current access to primary care or contraception. However, with significant noted findings and limited data on the rates of evidence-based and recommended evaluation and preventive care in the residential setting, our study highlights the importance of this care, particularly in the rural Ohio region. The data from 1 year of screening for these variables demonstrates the substantial gaps that can be seen for persons accessing residential treatment.

In regard to viral infections, the rates in this population of active hepatitis C in rural southwest Ohio was on par with and slightly higher than national data which presumes 8% to 25% infection rates.¹² Interestingly, this particular cohort had rates of exposure to hepatitis C at 53%. This highlights the need for testing and treatment of active hepatitis C consistent with ASAM guidelines. The guideline recommendation of treatment of active hepatitis C without requirement for abstinence from substance use is critically important to make an impact on community spread and overall rates.^{8,9,12} At this site, we have partnerships with county public health, primary care, and community gastroenterology specialists for options for treatment for hepatitis C and make those connections at time of diagnosis in the residential site. A future endeavor includes analyzing rates of follow-through with treatment and identification of any barriers and outcomes including long-term remission.

With respect to contraceptive care, based on a meta-analysis regarding rates of unintended pregnancy in opioid-using women, unintentional pregnancy is up to 94% in this population.¹³ In our study, this statistic was not directly assessed. However, the percentage of individuals in this study with neither a PCP nor current contraception, together with this staggering statistic, highlight the critical need to assess contraception needs at any point a woman with SUD accesses medical care. Additionally, with the changing landscape of elective abortion in the United States and in Ohio, this population is at highest risk for unintended pregnancy, with potential for lack of prenatal care and poor outcomes. Of note, the data from this patient cohort revealed elective sterilization after completion of desired fertility or no contraception. There was very little LARC or short-term contraception utilized by the women in our study. An area of opportunity for many SUD treatment centers is contraception, particularly emergency contraception education and LARC, for women who use substances to allow for patient autonomy in reproductive health.

In review of the data for STI including trichomoniasis, gonorrhea, chlamydia, and syphilis, the rates of trichomoniasis were the most intriguing. Currently, there is a lack of clear national CDC guidance for the screening of trichomoniasis, but there is a recommendation to consider screening in high risk populations.¹⁴ Trichomoniasis

is often an asymptomatic condition known to increase rates of HIV transmission as well as association with substantial pregnancy-related complications including premature rupture of membranes, preterm birth and low birth weight.¹⁴ However, it is an easily treated condition at a very low cost. In this study population, routine screening of all persons identified a 22.7% positivity rate. With this high rate, low cost of treatment, and population health risks, we recommend to improve education in SUD treatment centers and primary care on screening and consider stronger language in national guidelines surrounding screening in the SUD population.

As a retrospective cohort study, the study did have a variety of limitations and opportunities for future research. Most glaring is the lack of data available to determine follow up with primary care and completion of treatment for hepatitis C based on our referrals. Additionally, although there was a substantial gap in up-to-date Papanicolaou tests in the study population, many did not complete the screening during their stay at the treatment site. This is presumed due to a variety of factors including patient fears about the exam, no follow up for the testing other than patient-initiated scheduling during their stay, and some schedule-based limitations. Lastly, with no comparison groups and a limited size to this study, it is difficult to extrapolate this data to other treatment centers beyond rural Ohio. Of note, this population has a high rate of methamphetamine use as the primary substance, which may have different health outcomes than treatment centers that have a higher proportion of opioids as the primary substance.

PUBLIC HEALTH IMPLICATIONS

As discussed above, specifically for public health in Ohio, the high rate of hepatitis C exposure and active rates demonstrates a need for enhanced screening, treatment options, and monitoring of rates and barriers to treatment to impact individual health and community spread. Secondly, as highlighted above, the elevated rate of trichomoniasis was unanticipated. With the low cost and effective treatment, screening and treatment of trichomoniasis has the potential to impact HIV spread, associated pregnancy complications, and community spread in persons with SUDs in Ohio.

Next, although noted in many guidelines for SUDs, intentional discussion and evaluation of the need for contraception in this population, especially in the post-Roe era, is essential health care. Specifically, public-health-guided education and access to emergency contraception and highly effective LARC is of critical need in this population. Lastly, access to supportive primary care with an understanding of SUDs and the co-occurring risk factors and illnesses is necessary in all areas of Ohio, but it is particularly necessary in rural areas. In rural areas, access is already limited and the health burden for the individuals with co-occurring SUD in the community is high. Public-health-based education and training are necessary to enhance care for this population.



REFERENCES

1. Volkow ND, Baler RD, Normand JL. The unrealized potential of addiction science in curbing the HIV epidemic. *Curr HIV Res.* 2011;9(6):393-395.
<https://doi.org/10.2174/157016211798038605>
2. Zhou B, Bliss H, Jarvis T, Geary M. Facilitation of coordinated medical care for women in residential treatment for substance use disorder. *R I Med J* (2013). 2021;104:39-42.
<http://rimed.org/rimedicaljournal/2021/10/2021-10-39-contribution-zhou.pdf>
3. Black KI, Day CA. Improving access to long-acting contraceptive methods and reducing unplanned pregnancy among women with substance use disorders. *Subst Abuse.* 2016;10s1.
<https://doi.org/10.4137/SART.S34555>
4. Soccio J, Brown M, Comino E, Friesen E. Pap smear screening, pap smear abnormalities and psychosocial risk factors among women in a residential alcohol and drug rehabilitation facility. *J Adv Nurs.* 2015;71(12):2858-2866.
<https://doi.org/10.1111/jan.12745>
5. Lally MA, Alvarez S, Macnevin R, et al. Acceptability of sexually transmitted infection screening among women in short-term substance abuse treatment. *Sex Transm Dis.* 2002;29(12).
<https://doi.org/10.1097/00007435-200212000-00003>
6. Weissman G, Melchior L, Huba G, et al. Women living with drug abuse and HIV disease: drug abuse treatment access and secondary prevention issues. *J Psychoactive Drugs.* 1995;27(4):401-411.
<https://doi.org/10.1080/02791072.1995.10471704>
7. Merrill JO, Rhodes LA, Deyo RA, Marlatt GA, Bradley KA. Mutual mistrust in the medical care of drug users: the keys to the "narc" cabinet. *J Gen Intern Med.* 2002;17(5):327-333.
<https://doi.org/10.1046/j.1525-1497.2002.10625.x>
8. Visconti AJ, Sell J, Greenblatt AD. Primary care for persons who inject drugs. *Am Fam Physician.* 2019;99(2):109-116.
<https://www.aafp.org/pubs/afp/issues/2019/0115/p109.html>
9. Cunningham C, Edlund M, Fishman M, et al. The ASAM national practice guideline for the treatment of opioid use disorder: 2020 focused update [published correction appears in *J Addict Med.* 2020 May/June;14(3):267]. *J Addict Med.* 2020;14(2S Suppl 1):1-91.
<https://doi.org/10.1097/ADM.0000000000000633>
10. Ohio Department of Health. Ohio State Health Assessment. Accessed January 12, 2023.
<https://odh.ohio.gov/about-us/State-Health-Assessment>
11. Page K, Morris MD, Hahn JA, Maher L, Prins M. Injection drug use and hepatitis C virus infection in young adult injectors: using evidence to inform comprehensive prevention. *Clin Infect Dis.* 2013;57 Suppl 2 (Suppl 2):S32-S38.
<https://doi.org/10.1093/cid/cit300>
12. Burton MJ, Voluse AC, Anthony V. Integrating comprehensive hepatitis C virus care within a residential substance use disorder treatment program. *J Subst Abuse Treat.* 2019;98:9-14.
<https://doi.org/10.1016/j.jsat.2018.11.008>
13. Auerbach SL, Agbemenu K, Ely GE, Lorenz R. A review of unintended pregnancy in opioid-using women: implications for nursing. *J Addict Nurs.* 2021;32(2):107-114.
<https://doi.org/10.1097/JAN.0000000000000396>
14. Muzny CA. Why does trichomonas vaginalis continue to be a "neglected" sexually transmitted infection? *Clin Infect Dis.* 2018;67(2):218-220.
<https://doi.org/10.1093/cid/ciy085>
15. Lundsberg LS, Peglow S, Qasba N, Yonkers KA, Garipey AM. Is pre-conception substance use associated with unplanned or poorly timed pregnancy? *J Addict Med.* 2018;12(4):321-328.
<https://doi.org/10.1097/ADM.0000000000000409>
16. National Center on Substance Abuse and Child Welfare. Child Welfare and Alcohol and Drug Use Statistics. Accessed December 14, 2022.
<https://ncsacw.acf.hhs.gov/research/child-welfare-and-treatment-statistics.aspx>
17. Forray A, Foster D. Substance use in the perinatal period. *Curr Psychiatry Rep.* 2015;17(11):91.
<https://doi.org/10.1007/s11920-015-0626-5>