

Alternatives to Arrest for Illicit Opioid Use: A Joint Criminal Justice and Healthcare Treatment Collaboration

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ABSTRACT: Opioid overdoses continue to be a leading cause of death in the US. This public health crisis warrants innovative responses to help prevent fatal overdose. There is continued advocacy for collaborations between public health partners to create joint responses. The high correlation between persons with opioid use disorder who have a history of involvement in the criminal justice system is widely recognized, and allows for treatment intervention opportunities. Law enforcement-led treatment initiatives are still relatively new, with a few sparse early programs emerging almost a decade ago and only gaining popularity in the past few years. A lack of published methodologies creates a gap in the knowledge of applied programs that are effective and can be duplicated. This article seeks to outline an interagency relationship between police and healthcare that illustrates arrest is not the only option that law enforcement may utilize when encountering persons who use illicit substances. Program methods of a joint initiative between law enforcement and healthcare in a large, metropolitan area will be reviewed, supplemented with law enforcement overdose data and statistics on law enforcement treatment referrals.

KEYWORDS: opioid, overdose, diversion, treatment, substance use

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Introduction

Law enforcement-led community initiatives to address substance use have started to emerge within the last decade to address high-risk drug use and overdose. In the United States, the Department of Justice and the National Police Foundation, along with endorsements by the Police Executive Research Forum, have expanded efforts to support these types of public health partnerships and continue to encourage innovative and alternative responses to the traditional arrest tactics employed in the past. Despite some general knowledge of program existence and limited case studies and anecdotal reports,¹ the published body of evidence on these types of initiatives is scant. It is important to better understand the characteristics of effective law enforcement-led programs so that proliferation and implementation of established best practices can occur. The objective of this study is to provide an overview of one such program in the largest metropolitan city in Texas and share data to expand the limited body of literature on these types of law enforcement-led efforts.

Individuals with a history of involvement in the criminal justice system represent a key demographic group that is impacting the opioid epidemic and fatal overdose statistics.² The criminal justice system interacts with a disproportionately high number of individuals who use substances, including opioids. Justice-involved individuals are overrepresented within substance use disorder (SUD) treatment when compared to the general population, and they have greater substance use severity and comorbid mental illness than nonjustice-involved

persons.³ Furthermore, research shows an association between substance use and crime, where persons with SUD are twice as likely to be repeat offenders.⁴ SUDs can contribute to impairments in psychosocial functioning, with symptoms sometimes manifesting in criminal activities (e.g., offenses undertaken in order to acquire money or drugs needed to avoid withdrawal) and, for some, contribute to exacerbation of criminality among those who have additional criminogenic risk factors.^{5,6} While SUD may intensify rates of criminal activity, there is also evidence showing that severity of substance use and recidivism rates decline during and after treatment.⁵

This overview of substance use and crime illustrates that the criminal justice system is already positioned to have increased access to persons struggling with opioid use disorder (OUD). More than half (58%) of all jail populations turn over weekly,⁷ and more than 700 000 individuals are released from state and federal prisons back into the community annually.⁴ It is estimated that 75% of the population released from incarceration with OUD will suffer a relapse.⁸ Additionally, those leaving corrections are at an increased risk of death following release from incarceration with overdose being one of the leading causes,⁹ and they are 10–40 times more likely to have a fatal overdose when compared to the general population.⁸ In the two weeks after release from incarceration, there is a twelvefold higher risk of any death and one hundred fold higher risk of fatal overdose.⁹ This turnover means that a majority of the incarcerated population returns to the community, and those that do are at a higher-risk for overdose. Furthermore, the



unmet treatment needs of people on community supervision (probation/parole) post-incarceration are three times higher than the unmet treatment needs of the general population,⁴ and the offender with SUD is more difficult to integrate back into the community unless treatment needs are met.⁴ There is still demand for improved responses when individuals with SUD and criminal justice involvement overlap.

Treatment landscape

The number of persons with OUD has been increasing over the past 30 years, however, there has not been an equivalent increase in availability of and access to treatment.¹⁰ Demand for treatment far exceeds available capacity.¹¹⁻¹³ Accessible treatment options may be hard to find, as online directories are not always updated or accurate and rarely provide all options.¹⁰ The treatment referral process in most communities has room for significant improvement.¹⁰ A recent survey of treatment referral providers and treatment recipients uncovered many common obstacles to treatment, including difficulties in determining eligibility, lack of transparency regarding treatment capacity, misunderstanding of local referral options, and communication barriers between referral source and recipient.¹⁰

In addition to community obstacles, there are also well-documented gaps in access to treatment for justice-involved individuals that are already within the criminal justice system.³ Many criminal justice agencies do not screen for OUD or work in a coordinated manner with OUD treatment providers and other healthcare professionals,¹⁴ and even fewer connect with the recommended medication evidence-based standard of care. An analysis of national data uncovered that fewer than one in twenty (4.6%) people referred from the criminal justice system received Medications for Opioid Use Disorders (MOUD).² A lack of resources has also been cited as discouraging criminal justice staff from seeking alternative solutions.¹⁵ All of these barriers and missed connections to treatment can foster a sense of futility and helplessness due to a lack of effective and accessible treatment resources.¹⁶

Criminal justice interventions

It is imperative that the criminal justice system as a whole continues to reevaluate responses to individuals with opioid use disorder. Criminal justice is often reactive, responding to the symptoms of a problem and not the cause.¹⁵ The traditional approach of arrest, incarceration, and prosecution have neither deterred criminal recidivism nor decreased the cycle of continued opioid use.^{17,18} The paradigm of punishment rather than treatment does not facilitate the use of effective and coordinated interventions, and even less provide access to medication treatment for OUD.¹⁴ Evidence suggests that more imprisonment does not reduce state drug problems¹⁹ and incarceration alone is not an effective universal strategy.²⁰ Recent recommendations continue to argue for the pursuit of

alternative strategies that are more impactful as well as cost effective.²¹

Within the criminal justice process there are established intercept points to capture individuals in need of opioid use treatment at arrest, initial detention and hearings, jails and courts, reentry from jails and prisons, and community corrections. Many justice based programs are court driven, and operate at later stages of adjudication.¹⁴ Some of the treatment access variability may be that court and diversionary interventions further into the criminal justice process are more aligned with treatment providers and that there are limited partnerships in other spectrums of the criminal justice system, such as partnerships with first responders.² A lack of early detection tools and limited services translate into missed opportunities to intervene, and a lack of partnerships between criminal justice and healthcare entities makes it harder to link and share resources. Earlier intervention may also ensure correctional and criminal justice systems do not overstep their role in providing behavioral health treatment to individuals better served in the community.⁶ There are opportunities to incorporate pre-arrest interventions by having law enforcement officers intercept upon first contact and make direct referrals to community programs, or partner with teams of social workers, social service clinicians, first responders, or other healthcare workers who can assist in assessment and referral after first contact.²² Formal community partnerships are a pivotal component for this type of intervention.

Law enforcement officers as first responder to opioid use disorders

Law enforcement officers work at the gateway of the criminal justice system.^{14,22} As first responders, law enforcement officers may encounter overdose, active use, and withdrawal, as well as buying, selling, and possession of illicit substances.¹⁴ It is a misconception that it takes a large amount of time and resources to identify and refer to treatment, which may be why assessment often occurs later in the criminal justice process.²³ Individuals can be identified by law enforcement and engaged by treatment providers. It has been documented that the initial screening can be brief, conducted in a variety of settings, and take place before or after arrest.²³ Individuals can be quickly identified with training and referred when there are partnerships between law enforcement and treatment providers.²³ Law enforcement officers are not clinicians, but can play integral role in overdose reversals and treatment recommendations; however, without treatment alternatives, law enforcement is left with few options other than arrest and incarceration.^{6,14} Partnerships between criminal justice and healthcare can empower law enforcement with realistic and immediate access to resources and allow individuals who might have not sought care on their own to be connected with an opportunity for treatment. This paper seeks to illustrate a joint criminal justice and healthcare treatment initiative in a large, metropolitan area and provides preliminary

results from a pilot program as an outline for other cities to build upon.

Program methods

The Houston Emergency Opioid Engagement System (HEROES) is a community wide initiative between numerous community partners, including hospital emergency departments and emergency medical services, law enforcement and first responders, recovery centers, psychiatric facilities, substance treatment clinics, local physicians and other healthcare providers in addiction medicine. The emergency approach to treatment is based on three core principles of assertive outreach, medical intervention, and behavioral support. Assertive outreach is an innovative strategy that targets efforts to initiate contact with high-risk individuals rather than waiting for individuals to seek and find treatment on their own. The HEROES program incorporates the use of first responders that practice assertive outreach to reach individuals who have recently overdosed or show other signs of high-risk behaviors. Building on cognitive theories of change,²⁴ those afflicted with OUD who experience an overdose may present higher levels of treatment readiness and commitment to change.²⁵ Individuals are connected through various entry points, including through the hospital emergency department as a result of overdose or withdrawal, through Emergency Medical Services (EMS) when someone has been recently revived with naloxone to reverse an overdose, and through other community providers who screen and refer individuals. Additionally, through a partnership with law enforcement, the program is able locate and connect with high-risk individuals, rather than waiting for them to present on their own to treatment. The program is partially funded by a Department of Justice, Bureau of Justice Assistance grant that supports the formal partnership with the Houston Police Department's Narcotics Division.

During the time period the article was written, a group of officers from the police department's Narcotics Division were hand-selected to conduct outreach to those individuals who had experienced a non-fatal overdose that were reported to the police department. The officers were trained on what the program was and were given techniques to conduct consensual conversations with overdose victims. The overdose victims were pre-identified, not by race, gender, or socioeconomic status, but by occurrence in a geographic area. The geographic area was the jurisdiction of the police department, which encompasses all City of Houston areas as well the entire Harris County jurisdiction. Analysts from the Houston HIDTA (High Intensity Drug Trafficking Area) identify offense reports generated by law enforcement that are maintained in RMS (Records Management System). Once individuals have been identified, the analysts prepare a case folder and forward it to the program director. The program director assigns it to the officers to make contact. If an individual speaks Spanish, Vietnamese, Chinese, Dutch, Italian, or a vast array of other

languages, the police department has officers translate for those officers that do not speak the language, avoiding language bias in the initial contact.

The criteria for an initial outreach is simply whether or not an individual has experienced a law enforcement reported overdose, keeping the outreach objective. Officers are not conducting extensive assessments, and basic observation or individual self-report of opioid use is sufficient to trigger an offer for a referral to treatment. If officers are unsure of whether an individual is an appropriate program candidate, to avoid bias or discrimination, the default action is to offer a referral so that trained treatment staff can assess more thoroughly and make that determination. All referrals are the choice of the individual and are completely voluntary (no mandating). When a referral is made, HEROES program staff contact the individual within 24-48 hours to discuss the patient's history and parameters of the treatment available. After an initial consultation and assessment, all individuals who agree to treatment are invited for an intake appointment. Upon enrollment, treatment involves immediate induction into buprenorphine/naloxone treatment as this type of therapy helps suppress withdrawal and cravings and has been shown to decrease the risk of overdose.^{26,27} Referrals are seen by an emergency physician who has undergone special training and is licensed or *waivered*, as termed by the Drug Enforcement Agency, to write a prescription for buprenorphine/naloxone medication. The initiation of medication therapy through a short-term prescription serves as a temporary bridge until the program staff can assist in linking the individual to more permanent outpatient MOUD treatment with community providers. Enrolled individuals are also provided ongoing certified peer recovery coaching, weekly individual clinical behavioral counseling, and weekly educational and support group sessions. Additionally, individuals are connected to other local resources if they are assessed as having other needs such as housing, legal or mental health. Figure 1 illustrates the program design.

Program eligibility

Based on the program criteria outlined in the national clinical trial study description (NCT03396276), eligibility requirements for the program include adults over the age of 18, being able to speak and understand English, have a history of recent overdose or are a current high-risk user of opioids, reside in the Houston metropolitan area, and be able to participate in face to face treatment activities 2-3 days each week. Criteria employed by the police department followed the same guidelines, and the opportunity for treatment was not contingent on the reason for police department involvement. Individuals who did not meet these basic requirements were given local resources to follow up with, such as counseling for non-English speaking individuals, or youth program information for individuals under the age of 18.

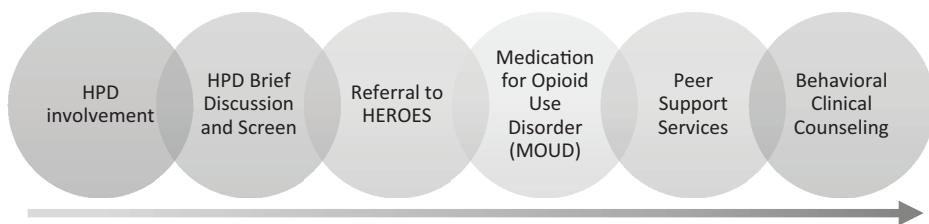


Figure 1. Program design of Houston Police Department and HEROES partnership.

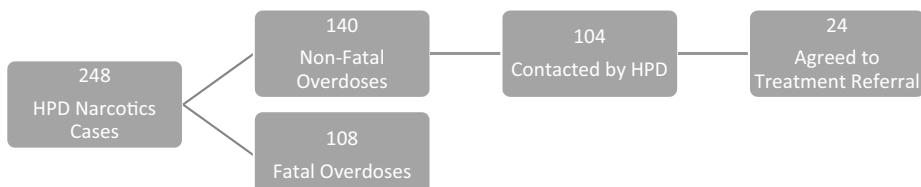


Figure 2. Houston Police Department Referrals to HEROES between Oct. 2018 - Nov. 2019.

Table 1. Fatal and nonfatal overdoses from Police Department, October 2018-November 2019.

CHARACTERISTIC	TOTAL 248 (100)	TYPE OF OVERDOSE		P-VALUE
		FATAL 108 (43.5)	NON FATAL 140 (56.4)	
Gender				.57*
Male	174 (70.2)	78 (72.2)	96 (68.6)	
Female	74 (29.8)	30 (27.8)	44 (31.4)	
Race/ethnicity				.50*
White non-Hispanic /Hispanic	160 (64.5)	67 (62.0)	93 (66.4)	
Other race/ethnicity	88 (35.5)	41 (38.0)	47 (33.6)	
Age, years**				.40*
17-30	107 (43.7)	43 (39.8)	64 (45.7)	
31-50	128 (52.4)	59 (54.6)	69 (50.4)	
>=51	10 (4.1)	6 (5.6)	4 (2.9)	

*Fisher's exact test.

**Three cases were missing data on age.

Results

Data from the first fourteen months of this funded partnership were compiled from October 1, 2018 through November 30, 2019. Figure 2 displays the results. Of the total 248 cases that the police department investigated related to overdose, 140 cases were non-fatal, allowing for follow up from law enforcement. Of these, the police contacted 104 (74%) of the individuals or their families. Twenty-four individuals who used opioids and who also met the other remaining program eligibility criteria stated they were motivated to make some changes in their opioid use behaviors and agreed to a treatment referral.

Houston overdoses

Table 1 presents the descriptive statistics for the fatal and nonfatal overdose cases investigated by the police department during the first fourteen months of the criminal justice

and healthcare partnership. A review of the 248 overdoses cases investigated show that over half of all the overdose cases were nonfatal (n = 140). Both fatal and nonfatal cases are primarily male (72% and 69%, respectively). Individuals who reported as White non-Hispanic/Hispanic were the majority in both fatal and nonfatal overdoses. Regarding age of individuals who overdose, overdoses occurred across all ages, although there were fewer reported overdoses in the over 50 age group.

Houston referrals to treatment

Table 2 presents the age and race/ethnicity of the referrals to HEROES from October 2018 to November 2019. Referrals to treatment were primarily male (75%), with an overall average age of approximately 31 years old. Age varied only slightly between males and females, with females averaging one year

Table 2. Age and Race of Police Department referrals to HEROES, October 2018-November 2019.

CHARACTERISTIC	TOTAL N=24 (100%)	MALE N=18 (75%)	FEMALE N=6 (25%)	P-VALUE
Age, mean (sd)	31.6 (11.08)	31.8 (10.6)	30.8 (13.4)	.97*
Race/ethnicity				.55**
White non- Hispanic/Hispanic	21 (87.5)	15 (83.3)	6 (100)	
Other race/ethnicity	3 (12.5)	3 (16.7)	0	

*Student *T* test, **Fisher's exact test.

Table 3. Comparison of HEROES referrals to Houston Overdose cases.

CHARACTERISTIC	TOTAL PARTICIPANTS 248 (100%)	HPD REFERRALS 24 (9.68%)	NON HPD REFERRALS 224 (90.32%)	P-VALUE
Age				
17-30	107 (43.67)	13 (54.17)	94 (42.53)	.03*
31-50	128 (52.24)	8 (33.33)	120 (54.30)	
>=51	10 (4.08)	3 (12.50)	7 (3.17)	
Gender				
Male	174 (70.16)	18 (75.0)	156 (69.64)	.64*
Female	74(29.84)	6 (25.0)	68 (30.36)	
Race/ethnicity				
White non-Hispanic /Hispanic	160 (64.52)	20 (83.33)	140 (62.50)	.05*
Other race/ethnicity	88 (35.48)	4 (16.67)	84 (37.50)	

*Fisher's Exact test.

younger than males. All referrals showed an encompassing range of ages across the spectrum. A majority of the referred individuals reported being white/non-Hispanic or white/Hispanic, with all of the females reporting this category, and most of the males (83%).

The demographics of the referred sample size were compared to the larger overdose sample to determine how representative the referrals were when compared to Houston as a whole. Referral cases were subtracted from the overall Houston overdose cases for comparison to determine, if any significant differences existed demographically between those who agreed to a treatment and those who did not. Compared statistics between referrals and nonreferrals are presented in Table 3. Due to the small sub-sample size, Fisher's Exact test was used to compare the referral group to the rest of the Houston sample. The variables for age and race/ethnicity are significant (*P*-value <.05), suggesting that the referral group differed at a statistically significant rate when compared to the Houston population. Regarding age, when compared to non-Police Department referrals, we observed significantly higher proportions of Police Department referrals for cases 17-30 years of age and >=51 years of age (54.17% versus 42.53% and 12.50% versus 3.17%, respectively). Referrals from the police department were more likely

to be white non-Hispanic/Hispanic than expected from the Houston data. There was no statistically significant difference regarding gender between the groups. Demographically speaking, individuals who agreed to treatment referral are not an exact representation of the Houston landscape. Variables beyond demographics were not available for this analysis, however, future research could examine reasons for these differences as well as other differences that may exist that determines whether someone agrees to treatment.

Discussion

Researchers have advocated use of uniquely available data to improve need estimates within criminal justice populations.²⁸ The overdose numbers in Houston over a fourteen-month period demonstrate the need for accessible treatment options for users with substance use. The individuals referred for outpatient opioid treatment with MOUD represent a high-risk segment of the population that may have not entered treatment without the interaction with law enforcement. Those individuals successfully referred to treatment were shown to be statistically different from what we would expect a proportional sample of the Houston environment to look like, with younger and older adults more likely to agree to a treatment

referral, and white non-Hispanic/Hispanic agreeing to treatment more often.

As discussed earlier, other research has shown that only 4.6% of justice-involved individuals are being referred to the evidence-based practice of MOUD treatment.² In this sample, 23% of contacted individuals were successfully referred to treatment that offered a MOUD component, showing a higher referral rate than average. The current partnership between a law enforcement agency and a healthcare entity outlined in this study is providing an opportunity to bridge this gap with the hopes of increasing referral statistics.

Poor outcomes are expected when untreated or undertreated persons with substance use disorders enter the criminal justice system.⁶ Substance use treatment produces measurable and significant changes when compared to no treatment, and persons who use substance are better off being in treatment than not being in treatment.²⁹ Treatment, rather than incarceration, provides both short and long-term improvements in criminal offending, drug use, and social functioning.²⁹

There are opportunities to implement programs across the criminal justice continuum¹⁴ and many recommend utilizing the earliest point of entry.⁶ There is a brief window of opportunity to act when someone presents at an emergency department or police station asking for help before withdrawal symptoms occur and drive a person back to street substances for relief.³⁰ To stop the revolving door, innovative programs that engage and rehabilitate more effectively are needed.³¹ Researchers advocate for aggressive efforts to identify new and creative methods for eliminating barriers to treatment,¹¹ including medication-based approaches and technology assisted approaches. The standard of care should be to implement care coordination strategies that stabilize, initiate treatment, and provide hands on transfer to providers that offer evidence-based treatment.³⁰ Developing interagency relationships, sharing data, creating a system of care for persons with opioid use disorder who have contact with law enforcement, and collaborating to connect these high-risk users to treatment is feasible.

Limitations and policy implications

This study offers a description of a law enforcement-led treatment program that focuses primarily on the capacity of police officers to successfully refer and link to treatment, with long term outcomes of the treatment intervention still being reviewed. Despite moderate success outlined in the early results of this pilot program and partnership, critics may be quick to point out small referral sample size. It is important to note that not only is the partnership with law enforcement new and innovative to the Houston landscape, the HEROES program itself was only established several months prior. Familiarity and understanding of a new program requires time in order to become a recognized and well-known staple in the community, and more time to adopt and accept as a new standard of care. Low referral rates could also be due to a history of individuals' past attempts at accessing treatment, where a lack of access to

treatment or failed attempts in the past has led to low expectations and confidence in getting the necessary medical and specialty help required to address active substance use.³⁰ Similarly, while some may argue that a referral rate of 23% is low, this model does not mandate treatment and allows for individuals to refuse care. A systematic review of compulsory substance treatment uncovered mixed results, although provided at least some evidence that mandated treatment is ineffective in some circumstances.³² Future research could explore reasons why individuals decline a referral to treatment in order to address concerns and engage eligible participants at a higher rate.

Logistical barriers, such as limited resources of a new pilot program, provide inherent challenges. A lack of available treatment options in languages other than English may have limited access to care. However, anecdotally during the reported time period this scenario was rare. There is a chance that those overdose cases where police contact was attempted and not successful may have included speakers of languages other than English. In a community as diverse as Houston, expanding treatment options for non-English speakers may allow greater access.

Stigma and stereotypes may also influence those engaging with law enforcement. Accepting a police referral to treatment may be juxtaposed to a long-standing public perception that law enforcement is uninterested in overdose prevention, which is likely a result of the previous forty years of drug market enforcement practices, related criminal sentencing, and policies of being tough on drugs.³³ Researchers examining perspectives on diversion programs found that a majority of police officers reported police culture as a barrier to adopting treatment options in lieu of arrest, and that clients of law enforcement diversion programs had positive attitudes about the program yet still held negative attitudes about the justice system and police overall.³⁴ In the current study, the officers are trying to balance a public health initiative that requires intimate conversations with law enforcement while simultaneously trying to avoid being invasive in these brief interactions. All referrals in this partnership are the choice of the individual and are completely voluntary (no mandating), which could result in a self-referral bias between those who agree and those who decline, despite the best objective efforts by officers to connect everyone to treatment. Officers did not collect additional data from individuals who refused to be referred. There may be some inherent bias between the groups where officers were successful in making contact when compared to those who were lost to follow up and no contact was made. Furthermore, it may be that populations who have a strained relationship with police may view law enforcement-led treatment referrals as an extension of an organization that they do not trust. Gender, race, ethnicity, and cultural variables may be influencing the interactions and referral process. While it was observed that descriptive variables of age and race/ethnicity of the referral group were not representative of the larger Houston population, additional research is needed to determine qualitatively why that is the case.

There has been some recent momentum to change the public perception of law enforcement as not being interested in overdose prevention,¹⁶ with a trend of police moving away from a pure enforcement model towards a health model by aligning public safety and public health strategies.^{34,35} What also emerges from the limited insights into police officer attitudes is the importance of law enforcement leaders advocating for treatment alternative programs and the practical need of collaborations with community health agencies in order to have diversion be successful.³⁴ Over time, enrollment numbers will continue to rise as the number of law enforcement partnerships with healthcare programs increase, officers are trained and communities are educated, stigma decreases, reliable access to treatment improves, and success stories emerge.³⁰

Future research

The body of literature on law enforcement-led treatment initiatives is scarce, and results that have been published are not uniform in reported outcomes.³⁶ There is a need for standardization of outcomes between Law Enforcement Assisted Diversion (LEAD), Comprehensive Opioid Abuse Programs (COAP), and similar initiatives. The industry must prioritize standardized measured outcomes in order to collectively compare and define success. Cost effectiveness of these alternative programs should also be considered. Analyzing incremental cost-effectiveness ratios will be hard to compute in the aggregate without comparable variables to analyze, which further highlights the importance of standardizing data outcomes.

Conclusion

Capitalizing on interactions with the criminal justice system as an opportunity to help individuals with any SUD is still underutilized. In many cases, the criminal justice system can positively impact the cycle of recidivism and death by providing appropriate treatment and diverting individuals away from the system entirely.

Author Contribution

AY and RG developed the concept for this study and collected all data from participants. AY and JL wrote the first draft. TCL and JL analyzed the data and edited the final draft of the manuscript. AY and TCL were involved in the revision process for publication.

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