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“The Emergency Room” in the Drug Court System: Evaluating the Opioid Intervention Court

Linda S. Kahn\textsuperscript{a}, Rachel A. Hoopsick\textsuperscript{b}, Caroline Horrigan-Maurer\textsuperscript{a}, and Gregory G. Homish\textsuperscript{b}

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\section*{ABSTRACT}
The Opioid Intervention Court (OIC) began in Buffalo, NY, in May 2017 as an intensive intervention for people at risk of overdose. We evaluated the OIC focusing on four major aims: (1) To describe OIC participant demographic characteristics, completion, and court engagement, from court administrative data; (2) To examine OIC completion by demographics and court engagement characteristics; (3) To describe participants’ OIC experiences from survey data; (4) To explore court team members’ perceptions and experiences based on interviews. Results suggest that participants who initiated MAT within the first week were more likely to complete OIC. Participants and personnel responded favorably to the OIC program.

\section*{KEYWORDS}
Drug treatment court; medication-assisted treatment; opioid-involved; addiction; buprenorphine

\section*{Introduction}
The first drug treatment court (DTC) in the United States was established in Miami-Dade County Florida in 1989. Since then, drug court programs multiplied, with over 3000 programs offering an alternative to incarceration for people charged with drug-related crimes (Fendrich & LeBel, 2019; Marlowe et al., 2016; Office of Justice Programs, 2020). DTCs were created in the context of the US War on Drugs to address the proliferation of crime associated with drugs, especially crack cocaine (Gross, 2010; Tiger, 2013). However, a growing percentage of people with opioid use disorder (OUD) have been enrolling in the drug treatment courts over the last decade (Baughman et al., 2019; Cornwell, 2019). It is estimated that 15\%-30\% of adults enrolled in US drug courts have moderate to severe OUD or self-report opioid-use as a problem (Gallagher, Marlowe et al., 2019; Marlowe et al., 2016; Matusow et al., 2013). A substantial body of research has documented a reduction in recidivism and substance use among people who participate in drug court programs (Kearley et al., 2019; Mitchell et al., 2012), but the current opioid epidemic has presented traditional DTCs with new challenges.

DTCs are guided by a set of common unifying principles or key components that include: integrating substance use treatment with judicial case processing, using a non-adversarial approach, identifying participants early, providing access to a continuum of treatment and rehabilitation services, frequent monitoring of abstinence, a coordinated
strategy, judicial interaction with each participant, program monitoring, and evaluation, providing interdisciplinary continuing education for the court team, and developing partnerships between drug courts, public agencies, and community-based organizations (National Association of Drug Court Professionals, 1997). Most DTCs monitor participants over a 12–18 month period that is often divided into three phases: stabilization, intensive treatment, and transition (Cornwell, 2019; Logan & Link, 2019). Despite these common principles and phases, much procedural variation exists between individual DTCs and across jurisdictions (Andraka-Christou, 2016; Cornwell, 2019; Logan & Link, 2019). While DTCs may be pre- or post-plea, most are post-plea: the defendant pleads guilty to criminal charges and opts to participate in the DTC program in exchange for temporary deferral or suspension of their sentence (Cornwell, 2019). Upon successful completion of the DTC program, the participant’s sentence may be waived, reduced, or expunged (Cornwell, 2019). Alternatively, failure to adhere to DTC requirements may result in a return to the criminal calendar (Cornwell, 2019).

Medication-assisted treatment (MAT) is the gold standard for treating and managing opioid-use disorder and includes the use of behavioral therapy in conjunction with the use of the following FDA-approved medications: buprenorphine, methadone, and/or naltrexone (Andraka-Christou, 2016; Baughman et al., 2019; Substance Abuse and Mental Health Services Administration, 2018; Volkow, 2018; Westreich, 2019). The efficacy and safety of these medications for people with OUD are well-documented and supported by the US Department of Health and Human Services, the World Health Organization, and numerous professional medical organizations (Andraka-Christou, 2016; Westreich, 2019).

Although MAT is the standard of care for OUD, uptake has been slow within drug treatment courts and the criminal justice system in general (Andraka-Christou, 2016, 2017; Matusow et al., 2013). One recent evaluation study found that drug court participants with opiates as their primary drug of choice were less likely to graduate compared to other drug court participants (Gallagher et al., 2018). Nearly half of all DTCs do not offer MAT and many continue to only promote abstinence through twelve-step programs (Andraka-Christou, 2016; Cornwell, 2019; Kearley et al., 2019). Several reasons have been attributed to the reluctance of some judges and drug treatment courts to accept MAT. These include lack of prescribers, stigma against MAT among correctional staff, judges, and participants, abstinence-only culture, fears of buprenorphine diversion, bias from mental health therapists, and lack of education about MAT (Andraka-Christou, 2016, 2017; Kearley et al., 2019; Krawczyk et al., 2017).

Few studies have specifically investigated the impacts of MAT on drug treatment court participants, and results have been mixed. Fendrich and LeBel (2019) conducted an implementation study of a Milwaukee DTC program to expand access to MAT from 2012 to 2016. Results suggested that receipt of MAT did not influence program completion among the 187 participants in the study. However, the researchers observed differences in completion rate by MAT type. Higher graduation rates were reported for 14 participants on methadone. Among participants receiving injectable naltrexone, an association was observed between the frequency of injections and more successful outcomes. Baughman and colleagues undertook an evaluation of 10 Ohio DTCs, examining the impacts of MAT on program outcomes and participant factors, including mental health and risk behaviors from intake, six months, and discharge (Baughman et al., 2019). Participants not on MAT had higher graduation rates. MAT was not associated with improvements in mental health,
risky behaviors, or illicit drug use. Dugosh and Festinger conducted a comprehensive evaluation of 25 Ohio DTCs piloting MAT programs and compared outcomes among 543 participants receiving MAT to 247 who declined MAT (Dugosh & Festinger, 2017). Those receiving MAT were more likely to be retained at six months (75% versus 73%, \( P < .01 \)). Gallagher and colleagues (Gallagher, Marlowe et al., 2019; Gallagher, Wahler et al., 2019) convened focus groups with 38 Indiana DTC participants with OUD to elicit their perspectives and experiences regarding MAT in DTC. Focus group participants emphasized the importance of destigmatizing MAT, especially among family and self-help group peers. Participants also noted the importance of the judge and court staff supporting the use of MAT.

**Opioid Intervention Court: a new model (Buffalo, New York)**

In 2016, the opioid epidemic spiked in Erie County, New York with over 300 overdose deaths, up from 127 two years earlier (New York State Department of Health, 2016). Although Erie County comprises roughly 8% of the total population of Upstate New York, the area accounted for 16% of all opioid deaths and 10% of heroin overdose deaths throughout Upstate New York in 2016.

After three DTC defendants fatally overdosed in a single week before their second court appearance, it was clear that the traditional DTC model with weekly appearances needed to be modified. In response to this crisis, the 8th Judicial District of New York State established the nation’s first Opioid Intervention Court (OIC) in Buffalo, New York in May 2017 with funding from the Bureau of Justice Assistance (Michel, 2017; Westervelt, 2017; Williams, 2018; “The Country’s First Opioid Court,” 2017). With a primary mission of saving lives, the OIC was designed as an intensive intervention to accelerate linkage to substance use treatment for individuals at risk of fatal opioid overdose who are charged with a nonviolent offense (Cornwell, 2019). Several key features distinguish the OIC from traditional DTCs (The 10 Essential Elements of Opioid Intervention Courts – Working Group, 2019). The primary eligibility criterion is opioid overdose risk, as determined by a brief screening survey administered by the court. Individuals who screen positive receive an additional bio-psycho-social screen after arraignment, administered by on-site treatment professionals or case coordinators (Lucas & Arnold, 2019). In keeping with federal funding guidelines, people charged with violent crimes are excluded.

Once a prospective participant is deemed eligible, they consult with defense counsel and provide informed consent that they are willing to participate in the OIC and adhere to the requirements. The OIC is pre-plea: participants’ criminal charges are suspended while they concentrate on clinical treatment. Every effort is made to link participants to substance use treatment: ideally within 24 hours of their first appearance before the judge. While MAT is strongly encouraged, it is not mandated. The OIC maintains an on-site team of case managers to assess and address participant’s needs including drug use, mental and physical health conditions as well as health insurance, housing and transportation. As with traditional DTCs, the OIC collaborates with multiple behavioral health organizations, including peer recovery advocates. The OIC also utilizes the Court Outreach Unit: Referral and Treatment Services (COURTS) program within the Buffalo City Court. The COURTS program provides access and linkages to community-based providers, social services, behavioral health and medical care, counseling, vocational/educational services, housing,
in addition to other resources. The speed with which OIC participants are linked to treatment and services distinguishes the OIC from traditional DTCs.

A hallmark of the OIC is that participants are required to appear in court every day for 90 days to meet one-on-one with the judge and undergo frequent, random drug testing. The judge avoids imposing punitive sanctions, such as incarceration, for positive urine toxicology results. The participants walk directly to the bench to speak with the judge, rather than stand behind a podium. Participants are also required to “check in” nightly via text or phone message with a court case manager.

The judge discusses each case daily with the court coordinator, who maintains close contact with the participants’ treatment providers. Case managers coordinate participants’ treatment and services. If a participant experiences challenges with a type of treatment, the case manager may link them with a different treatment following provider recommendations.

When a participant begins to attain stability, the judge tapers court appearances to 3 days a week, 2 days, and finally, once a week. Tapering may also occur to accommodate participants’ schedules for recovery-based activities such as group sessions, counseling, medical appointments, or job training. In general, stability is determined based on 30 days of consistent negative urine toxicology, adherence to court requirements, and positive reports from treatment providers. For example, even if a participant appears in court consistently, but their counselor reports that they have not been going to treatment, the OIC will not reduce their court appearances because this behavior is not considered stable, nor does it fulfill the court’s requirements. Tapering court appearances allows the OIC team to assess how the participant functions with reduced structure and outside accountability, and informs their readiness to complete the OIC, while also providing participants with a supportive structure. If participants do not maintain stability through this process, the judge may decide to resume daily court appearances.

After a minimum of 90 days of treatment and supervision, a participant may be eligible for program completion if they have 30 days of consistent negative urine toxicology for opioids, treatment stability, and a plan for income and housing security. When these criteria are met, the judge can determine whether the participant meets criteria for program completion. Upon completion of the OIC, participants return to the criminal calendar where the judge and legal team review their case. Depending upon their charges, the person may be diverted to a traditional drug court, mental health court, or veterans’ court for longer-term treatment. They may have their charges dismissed, or in serious cases, may be prosecuted in the criminal court (Lucas & Arnold, 2019).

Following Bureau of Justice Assistance guidelines and National Association of Drug Court Professionals best practice standards, the Eighth Judicial District engaged an external evaluation team to assess the OIC as a novel pilot within the court system. This article presents findings from the program evaluation that assessed the effectiveness and feasibility of the OIC. The evaluation focused on four major aims: (1) To describe the demographic characteristics (i.e., age, gender, race/ethnicity), completion status, and court engagement characteristics (time in OIC, receipt of MAT, and MAT type) of OIC participants, from court administrative data; (2) To examine OIC completion by demographic characteristics and court engagement characteristics using court administrative data; (3) To describe participants’ experiences and satisfaction with the OIC program from self-report survey
data; (4) To explore court team members’ perceptions and experiences with the OIC based on semi-structured interviews.

**Methods: evaluation strategy**

We conducted a mixed-methods evaluation that incorporated quantitative and qualitative data (Creswell, 2013; Trahan & Stewart, 2013), as well as data from both OIC participants and court team members. Following a concurrent, mixed methods approach, the quantitative and qualitative data were collected and analyzed separately, with the results used in combination to impart a deeper understanding of the program evaluation results (Creswell, 2013; Trahan & Stewart, 2013). There were 3 main data sources for the program evaluation: (1) the Unified Court Management System (UCMS) administrative database, (2) a participant self-report satisfaction survey, (3) qualitative semi-structured interviews with court personnel. The evaluation began in May, 2017 and concluded in September, 2019.

The University at Buffalo Institutional Review Board granted human subjects approval. OIC participants completing the anonymous survey gave verbal consent. All court team members who were interviewed provided written informed consent.

**Data collection**

**Administrative court data**

The court system case manager extracted UCMS administrative data for individuals who participated in OIC between May 2017 and September 2019 (n = 522) and then electronically transmitted the extractions as Microsoft Excel spreadsheets to the evaluators. Variables included participant demographics, episode status (open, closed, warrant), appearance dates, completion status, infractions, substance use treatment, and MAT participation.

As part of the evaluation, a time-delimited subset of the UCMS administrative data was analyzed separately. During the first few months of the OIC, many participants were referred to as inpatient treatment. Then, in alignment with current medical best practice standards for treating opioid use disorder (Kampman & Jarvis, 2015) the OIC began prioritizing rapid access to outpatient MAT. To present an accurate assessment of current OIC procedure, the evaluators narrowed the analytic timeframe to January 2018 through September 2019, yielding 206 closed cases.

**OIC participant survey**

A brief anonymous survey was administered during the summer of 2019 to a convenience sample of OIC participants enrolled in the OIC for a minimum of 35 days (n = 18). A convenience sample was chosen due to limited budget and resources to conduct the evaluation. The 35-day criteria was suggested by the Courts Administrator because during the first month of OIC, participants are adjusting to the court structure and initiating treatment.

A research assistant approached participants outside the courtroom to invite them to participate in the survey, after they had appeared before the judge. Participants were asked about their experiences in the OIC, satisfaction with the program, personal
relationships, and quality of life. The Brief Assessment of Recovery Capital (BARC-10) was included in the survey to measure recovery progress (Vilsaint et al., 2017). Recovery capital consists of the personal, social, financial, environmental, and professional resources that a person can draw upon to initiate and sustain recovery (Cloud & Granfield, 2008; Vilsaint et al., 2017). The BARC-10 is a shortened version of the 50-item, 10 subscale full Assessment of Recovery Capital (Groshkova et al., 2013). Despite its shortened format, the BARC-10 has high internal consistency (alpha = 0.90) and concurrent validity with the original measure, and also had high internal consistency in our study sample (alpha = 0.87).

Following the completion of the survey, participants received a 10 USD supermarket gift card for their time. The anonymous paper surveys were entered by hand into Microsoft Excel.

**Court personnel interviews**

Semi-structured interviews with a convenience sample of members of the OIC court team were conducted by the lead evaluator (LK) between 2017 and 2019. Five members out of 6 accepted our invitation for interviews. Open-ended questions focused on the perceptions and experiences of OIC court team members, including areas for improvement. Interviews were digitally recorded and transcribed into Microsoft Word.

**Data analysis**

**Quantitative**

Statistical analyses using UCMS assessment and screening data as well as administrative court data were conducted with Stata version 15.1 (College Station, TX). Descriptive statistics were used to characterize the sample. We examined the odds of OIC completion by each demographic characteristic (i.e., age in years, gender [female/male], race/ethnicity [Non-Hispanic White, Non-Hispanic Black, Hispanic]) and engagement characteristic (i.e., number of days in OIC, receipt of MAT in OIC [no/yes], receipt of MAT within first 7 days of OIC, type of MAT received), separately. Unadjusted odds ratios (ORs), 95% confidence intervals (CIs), and p-values are presented. We used Bonferroni corrections using adjusted alpha levels of 0.006 (0.05/9) to adjust for multiple comparisons.

**Qualitative**

Qualitative analysis was undertaken in two phases. During autumn 2019 two qualitative researchers and the principal investigator/lead evaluator (LK) independently reviewed the transcripts to identify preliminary themes or ideas that arose multiple times within and across interview transcripts. They met multiple times to compare patterns and themes, and resolve disagreements. Once consensus was achieved, the team constructed a master outline of themes and subthemes in MS Word. The team met to confer about the master outline and discuss key findings. The second qualitative analysis was undertaken in spring 2020 with the principal investigator and a qualitative researcher focusing only on themes that had been identified which are unique to the OIC, and informed by the 10 Essential Elements of Opioid Intervention Courts (The 10 Essential Elements of Opioid Intervention Courts – Working Group, 2019). Exemplary sections of the transcripts that illuminated each theme were then identified.
Results

Demographic characteristics, completion status, and court engagement

There were 522 individuals who participated in the OIC program between May 2017 and September 2019. Of the 522 participants in OIC, 74% had a closed case (n = 384). The majority of these participants with closed cases (75%, n = 288) were between 20 and 39 years old and the average age was 34. Most participants were male (67%, n = 256), and non-Hispanic White (63%, n = 242). Among these closed cases, the completion rate was 34% (n = 129) (Table 1). Nearly half (47%, n = 120) of the 255 participants who did not complete were out on warrant, with a close reason of “Warranted/Not Final” meaning that a warrant was issued but the person was not terminated from the OIC program. The dropout rate was 20% (n = 50 voluntary dropout, n = 25 noncompliant) and there were 6 overdose deaths during the 28-month evaluation period.

There were no statistically significant differences in the odds of OIC completion based on age (OR = 0.98, 95% CI: 0.96, 1.01; p = .143) or gender (OR = 1.54, 95% CI: 0.97, 2.45; p = .068). Results suggest that Hispanic participants were less likely to complete OIC than non-Hispanic White participants, but this difference was not statistically significant after adjusting for multiple comparisons (OR = 0.49, 95% CI: 0.27, 0.86; p = .014). There was no difference in the odds of OIC completion for non-Hispanic Black participants compared to non-Hispanic White participants (OR = 0.81, 95% CI: 0.38, 1.73; p = .584).

OIC completion by demographic and court engagement characteristics

The odds of OIC completion were examined according to several engagement characteristics using the subset of closed cases from January 2018 through September 2019 (Table 2). During this selected timeframe, 206 cases were closed and these participants had a median


<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Closed Cases (N = 384)</th>
<th>Odds Ratio (95% CI)</th>
<th>Likelihood Ratio χ²</th>
<th>Pseudo R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>34.1 (±9.4)</td>
<td>0.98 (0.96, 1.01)</td>
<td>0.11</td>
<td>0.00</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>34.5% (180)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>65.3% (341)</td>
<td>1.54 (0.97, 2.45)</td>
<td>3.06</td>
<td>0.01</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>65.1% (340)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>7.9% (41)</td>
<td>0.81 (0.38, 1.73)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>21.1% (110)</td>
<td>0.49 (0.27, 0.86)*</td>
<td>1.85</td>
<td>0.01</td>
</tr>
<tr>
<td>Case Close Reason</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed</td>
<td>33.6% (129)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomplete: Sentenced on other case</td>
<td>12.0% (46)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomplete: Medical Problem</td>
<td>0.3% (1)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Failed: Noncompliant</td>
<td>6.5% (25)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failed: Voluntary Dropout</td>
<td>13.0% (50)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warrented/Not Final</td>
<td>31.3% (120)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abated by Death</td>
<td>1.6% (6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss of Contact</td>
<td>0.3% (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refused</td>
<td>0.3% (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Female is reference group.
*Non-Hispanic White is reference group.
*p < 0.05.
Table 2. Engagement characteristics\(^a\) of closed OIC cases and odds of completion, Jan. 2018–Sep. 2019.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Closed Cases (N = 206)</th>
<th>Odds Ratio (95% CI)</th>
<th>Likelihood Ratio (\chi^2)</th>
<th>Pseudo (R^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days in OIC (range: 5–545)</td>
<td>175 days</td>
<td>1.01 (1.01, 1.01)**</td>
<td>7.34**</td>
<td>0.03</td>
</tr>
<tr>
<td>MAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>49.0% (101)</td>
<td>3.33 (2.11, 5.25)***</td>
<td>12.92***</td>
<td>0.06</td>
</tr>
<tr>
<td>Yes</td>
<td>51.0% (105)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Received MAT within 7 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>76.2% (157)</td>
<td>3.82 (1.87, 7.82)***</td>
<td>13.15***</td>
<td>0.06</td>
</tr>
<tr>
<td>Yes</td>
<td>23.8% (49)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT Type(^b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>55.5% (56)</td>
<td>0.60 (0.31, 1.15)</td>
<td>4.05</td>
<td>0.03</td>
</tr>
<tr>
<td>Methadone</td>
<td>36.6% (37)</td>
<td>3.42 (1.34, 8.73)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naltrexone</td>
<td>5.9% (6)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)MAT type data missing for some participants (n = 6).
\(^b\)First MAT type among those who received MAT during episode; Buprenorphine is reference group.

*p < 0.05; **p < 0.01; ***p < 0.001.

The duration of participation in OIC of 175 days (approximately 6 months). However, each day spent in the OIC program was associated with a 1% increase in the odds of completion (OR = 1.01, 95% CI: 1.01, 1.1; \(p = .001\)).

Approximately half (n = 105) of all participants received MAT during their time in OIC. However, those who received MAT had more than a 3-fold greater odds of completing OIC compared to those who did not receive MAT (OR = 3.33, 95% CI: 2.11, 5.25; \(p < .001\)). Participants who received MAT within the first 7 days of OIC were nearly 4 times as likely to complete OIC than those who did not receive MAT within the first 7 days of OIC (OR = 3.82, 95% CI: 1.87, 7.82; \(p < .001\)). The majority (56%, n = 56) of OIC participants on MAT received buprenorphine. Among individuals who received MAT, results suggest that those who received naltrexone may be more likely to complete OIC compared to those who received buprenorphine, but findings were not statistically significant after adjusting for multiple comparisons (OR = 3.42, 95% CI: 1.34, 8.73; \(p = .010\)). Further, only 6 participants were prescribed naltrexone, resulting in a wide confidence interval that limits our ability to draw meaningful conclusions from this finding. There was no statistically significant difference in the odds of OIC completion between those who received buprenorphine and those who received methadone (OR = 0.60, 95% CI: 0.31, 1.15; \(p = .123\)); however, the magnitude and direction of the estimate suggest that those on methadone may have been less likely to complete OIC, but these individuals represent a small analytic subsample (n = 37).

Participants’ experiences and satisfaction with OIC from self-report survey

A total of 18 participants enrolled in the OIC for at least 35 days completed the self-report anonymous surveys during summer, 2019. OIC survey respondents were predominantly male (83%, n = 15) and 78% (n = 14) were white. The mean age was 33 years. Most survey respondents completed high school or attained a GED (78%, n = 14), and some had postsecondary education or training (33%, n = 6). Roughly half were working either part-time (28%, n = 5) or full-time (22%, n = 4). Most (61%, n = 11) were living rent-free in someone else’s residence, while 22% (n = 4) were renters.
**OIC program experiences**

Nearly all (90%, n = 16) respondents self-reported that they were participating in MAT. When asked whether they plan to continue MAT upon completion with OIC, 44% (n = 7) of those participating in MAT responded “absolutely” and another 19% (n = 3) responded “probably.” All 18 participants responded positively to their overall experience with the OIC. When asked to assess key aspects of the OIC program, the majority of OIC survey respondents responded that the programmatic aspects of the OIC, such as frequency of urine testing, intensity of treatment, and time with the judge should remain the same (Table 3). However, 56% (n = 10) of respondents indicated that educational and vocational opportunities should be increased, and 28% (n = 5) indicated that the number of court appearances should be decreased.

**Recovery capital**

In their responses to the Brief Assessment of Recovery Capital BARC-10 questions (Vilsaint et al., 2017), most participants (83%, n = 15) agreed “there are more important things to me in life than using substances,” and reported they were “making good progress in their recovery journey” (Table 4). Fewer respondents reported receiving “lots of support from friends” and felt part of their community. These responses may reflect the transitions participants were experiencing with social networks and community re-engagement.

**Court team members’ perceptions and experiences based on semi-structured interviews**

Semi-structured interviews were conducted with 5 members of the OIC team: A case coordinator, a case manager, an assistant district attorney, a court officer, and the presiding judge. Four overarching thematic categories that related to The 10 Essential Elements of Opioid Intervention Courts (The 10 Essential Elements – Working Group, 2019) emerged from the transcripts: (1) Support of the disease model of substance use disorder (SUD); (2) Distinctive judicial features of the OIC, (3) Participant barriers and facilitators, and (4) Programmatic challenges. Interviewees also provided recommendations for improving the OIC.

**Disease model of SUD**

Court team members spoke at length about the OIC’s role as an “intervention court” and emphasized that its goal is to save lives. Their comments resonate with the first Essential Element of Opioid Intervention Courts, “Broad legal eligibility,” which prioritizes clients’ clinical needs with regard to preventing overdose deaths and incorporating evidence-based

<table>
<thead>
<tr>
<th>Table 3. Satisfaction with key OIC program components (N = 18).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OIC Component</strong></td>
</tr>
<tr>
<td>Time with Judge</td>
</tr>
<tr>
<td>Number of court appearances</td>
</tr>
<tr>
<td>Intensity of treatment</td>
</tr>
<tr>
<td>Frequency of treatment</td>
</tr>
<tr>
<td>Frequency of urine testing</td>
</tr>
<tr>
<td>Educational/Vocational Opportunities</td>
</tr>
</tbody>
</table>
Table 4. Brief Assessment of Recovery Capital* (N = 18).

<table>
<thead>
<tr>
<th>Recovery capital component</th>
<th>Disagree% (n)</th>
<th>Somewhat Disagree % (n)</th>
<th>Somewhat Agree % (n)</th>
<th>Agree % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are more important things to me in life than using substances</td>
<td>17% (3)</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>83% (15)</td>
</tr>
<tr>
<td>In general I am happy with my life</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>22% (4)</td>
<td>78% (14)</td>
</tr>
<tr>
<td>I have enough energy to complete the tasks I set for myself</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>18% (3)</td>
<td>78% (14)</td>
</tr>
<tr>
<td>I am proud of the community I live in and feel a part of it</td>
<td>17% (3)</td>
<td>0% (0)</td>
<td>33% (6)</td>
<td>50% (9)</td>
</tr>
<tr>
<td>I get lots of support from friends</td>
<td>0% (0)</td>
<td>6% (1)</td>
<td>39% (7)</td>
<td>56% (10)</td>
</tr>
<tr>
<td>I regard my life as challenging and fulfilling without the need for using drugs or alcohol</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>28% (5)</td>
<td>72% (13)</td>
</tr>
<tr>
<td>My living spaces help to drive my recovery journey</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>28% (5)</td>
<td>72% (13)</td>
</tr>
<tr>
<td>I take full responsibility for my actions</td>
<td>0% (0)</td>
<td>6% (1)</td>
<td>17% (3)</td>
<td>78% (14)</td>
</tr>
<tr>
<td>I am happy dealing with a range of professional people</td>
<td>0% (0)</td>
<td>6% (1)</td>
<td>22% (4)</td>
<td>72% (13)</td>
</tr>
<tr>
<td>I am making good progress on my recovery journey</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>17% (3)</td>
<td>83% (15)</td>
</tr>
</tbody>
</table>

*Not every participant answered each question.

treatment along with judicial monitoring (The 10 Essential Elements – Working Group, 2019, p. 3). In the interviews, court personnel used a medical analogy, describing the OIC as “the emergency room” within the DTC system where candidates are screened for risk of opioid overdose and, if eligible, quickly triaged into an intensive intervention. The judge explained, “... we are an intervention court as opposed to a drug treatment court. We’re getting involved at the first intercept in the criminal justice system.” Interviewees stated that the OIC treats opioid use as a disease rather than a moral choice. The judge made a comparison to diabetes:

Relapse is a part of recovery, and I know people don’t like saying that, but imagine … someone just saying you can never have chocolate cake for the rest of your life because of your diabetes … I’m pretty sure for about, if you just saw your doctor last month, you may be good for a few weeks, or three weeks, or maybe even a year, but something’s gonna come up to trigger you to want some cake. Now that’s just sugar. Now imagine something that they say is 5,000 times the most pleasurable experience you have in your life, you think one day in the future you may not try it again? It’s a possibility. [Judge]

Court personnel interviewees discussed the importance of rapid access to medication-assisted treatment (MAT) and endorsement of MAT for opioid use disorder. The 5th Essential Element of Opioid Courts emphasizes that “Medication-Assisted Treatment should be a core component of the program and should be offered to all participants as medically appropriate … and ideally within 24 hours of arrest” (The 10 Essential Elements – Working Group, 2019, p. 4). A caseworker emphasized, “Being able to link to treatment right away … is the greatest benefit that the program has.” The judge referred to medication-assisted treatment as “the gold standard of getting [participants] back on their path to recovery.”

**Distinctive judicial features**

Interview participants spoke about judicial processes that distinguish the OIC from traditional DTCs. The OIC uses a pre-plea model, suspending prosecution while the individual focuses on recovery. The 4th Essential Element of Opioid Courts recommends “suspension
of prosecution or expedited plea” (The 10 Essential Elements – Working Group, 2019, p. 4). The assistant district attorney (ADA) explained:

They’re not criminal defendants, they’re participants, whereas, it’s my understanding that every other specialty court here, that they still are, have that tag line as a defendant. [ADA]

Court personnel found the pre-plea model helpful. While not unique to the OIC, court personnel noted that pre-plea allowed participants to focus on recovery rather than their criminal charges. In addition, severe sanctions, such as sending someone to jail when they relapse, are used sparingly. This is in keeping with the 7th Essential Element of Opioid Intervention Courts that recommends avoiding “imposing punitive sanctions for positive drug tests (The 10 Essential Elements – Working Group, 2019, p. 5). The judge commented:

I really believe our job is to help people, it’s not to hurt them, and locking people up when they’re sick is hurting them tremendously. [Judge]

Interviewees gave examples of sanctions used in OIC in lieu of sending participants to jail, such as essay assignments or community service. The judge emphasized that “we really don’t sanction use, we sanction negative behavior because we want them to get on a right path.” In addition, interviewees noted that the limited use of jail sanctions minimizes the potential for relapse and overdose resulting from interruption in MAT during incarceration.

All team members interviewed mentioned daily participant monitoring and evening check-ins with the caseworker distinguished the OIC from traditional DTCs. Moreover, the twice-daily reporting promoted participant accountability. The 7th and 8th Essential Elements of Opioid Intervention Courts address the importance of frequent judicial supervision, compliance monitoring, and intensive case management (The 10 Essential Elements – Working Group, 2019, p. 5). A caseworker commented:

I feel like I have a stronger relationship with the clients, because I see them every day. Whereas in the other courts, it was once a week or less . . . Because you see someone every day . . . you can tell when something seems a bit off, which especially when you’re dealing with drug use can be really helpful . . . [Caseworker]

The judge explained that the day-to-day contact with participants provides social supports:

A lot of our participants have probably burnt a lot of bridges, and they lost a lot of family and community support, and I think the day to day contact where we’re constantly encouraging them and building um up and uplifting them, letting them know that, you can do this, you can get back on track, you know, you’re the most important person in this equation. [Judge]

Team members reported that having participants approach the bench and closely confer with the judge, rather than communicate at a distance, was another distinctive feature of the OIC. The court officer admitted that it took him a while to become accustomed to this practice.

Every judge is different, and Judge [Name] certainly runs his court in a way where, you would see the participants come up to the front of the bench. That happens in no other court room, no one gets to approach the judge like that. [Court Officer]
In addition to daily participant court appearances, the judge met at least once a day with the court coordinator to review the status of each case and reports received from treatment services.

**Barriers and facilitators to OIC participation**

Team members identified challenges faced by participants and how they were addressed. The 6th Essential Element of Opioid Intervention Court recommends that the court offer a range of support services, which include not only self-help and peer recovery groups, but also support for housing, transportation, and other resources (The 10 Essential Elements – Working Group, 2019, p. 5).

Interviewees frequently mentioned reliable transportation as a major barrier, affecting participants’ ability to report to court daily or arrive on time. To address this barrier, case managers helped participants obtain bus passes or Medicaid transportation, if eligible:

> Getting to court is the hardest part. We expect many of them to come every day, that’s expensive. Bus pass is 75 USD a month, or if you go daily, it’s 5 USD a day. If they have Medicaid, they’re eligible for a bus pass, and I put that, I call that in for people. [Case manager]

> Additionally, participants had limited financial and social supports, often a result of substance use disorder. A team member explained:

> They burned a lot of bridges. A lot of times, their family members don’t want to give them money because they’re like, “Oh, I need it for the bus,” and their family members don’t really believe that because of their history. [Case Manager]

Team members noted that participants struggled with the requirements of opioid court. Daily court appearances, frequent treatment or counseling appointments, and self-help groups, can affect their ability to look for work or maintain employment. While the time burden associated with drug treatment court has been reported in other studies (Gallagher et al., 2017; Wolfer, 2006), the OIC exerts an even greater time demand on participants due to the daily requirements. OIC team members explained that once the judge and team deem a participant stable, they can reduce the number of required court appearances or schedule the court appearances to accommodate work or school schedules.

Team members also mentioned that many participants experience isolation, especially when they begin the OIC program and need to remove themselves from social networks that do not promote recovery. Interviewees also noted that OIC participants have limited access to resources and social services. To address lack of resources, court team members refer participants to the COURTS program on the fourth floor of the Buffalo City Court Building that provides services such as insurance navigation, access to social services, and linkages to treatment programs. The judge and court team members also refer participants to the Healthy Outcomes Partnership and Education (HOPE) critical time intervention program that partners with the OIC.

**Programmatic challenges**

Interviewees commented on difficulties they observed with the OIC program. OIC participants’ readiness to change and commitment to treatment plans can be problematic.

> I would just say getting them to commit and see the importance of going to treatment. A lot of them try to make the excuse that they’re not going or don’t want to go, or the bus, but it’s literally a seven-minute walk, so they can’t really use that excuse. [Caseworker]
This observation also came to light when court staff described feeling discouraged or frustrated when participants were offered multiple opportunities to access recovery resources and chose not to pursue. “It’s hard for me sometimes to see someone get so many chances, but I certainly understand that is part of the treatment process,” stated an Assistant District Attorney. Interviewees also acknowledged that despite a broad array of linkages and opportunities provided by the OIC program, participants encountered barriers beyond the scope of the court, such as insurance and program regulations preventing them from accessing resources.

Finally, court staff expressed concerns about the termination of OIC monitoring when participants completed the OIC program, and whether participants would sustain adherence to MAT and other recovery practices. The 9th Essential Element of Opioid Intervention Courts recommends that participants complete a minimum of 90 days of treatment and supervision, with the expectation that they will have achieved stabilization and a foundation for longer-term treatment (The 10 Essential Elements – Working Group, 2019, p. 5). However, interviewees articulated uncertainty as to whether participants completing the OIC had a solid foundation and the resources to sustain their recovery. One staff member reflected, “I feel once we complete them, they don’t know what to do with themselves anymore … because we’re their new normal.”

In light of their experiences with the OIC, team members offered recommendations for improving the program. These included: (1) Having a “face-to-face” check in during the weekends for OIC participants, especially those who are newly enrolled and beginning their recovery, (2) Activities or supports to engage OIC participants, if they were not working or enrolled in school, to address the problem of “empty time” and help develop new interests, (3) A separate court calendar specific to the OIC without other cases (criminal, diversion), to shorten wait times to see the judge, and (4) An “alumni” peer support group to help OIC completers sustain their recovery.

**Discussion**

This evaluation examined the perceived effectiveness and feasibility of the nation’s first opioid intervention court. This court is different from other drug treatment courts because it provides a shorter, ideally 90 day, intensive intervention through accelerating access to MAT and requiring daily judicial supervision. We used a mixed methods approach to conduct the evaluation, incorporating court administrative data, a participant satisfaction survey, and court personnel interviews that allowed us to examine participant outcomes and court processes from different angles.

Quantitative UCMS administrative data revealed a 34% completion rate. During the 28-month evaluation period, there were 6 fatal overdoses. The 34% completion rate may reflect the short duration of the court. Although the optimal time frame for completion is 90 days, we found that the median time to completion was 175 days. Due to the chronic remitting and relapsing course of opioid use disorder, stable recovery may take several years and require not only pharmacological treatment but also enhanced recovery support services (Hoffman et al., 2020). Time spent in inpatient or residential treatment settings or time on warrant can significantly extend the duration of OIC participation.

Key findings derived from both the quantitative and qualitative data suggest that MAT and specific court processes, such as daily appearances and check-ins, may be important
replicable tools in addressing opioid use disorder among DTC participants at high risk for overdose. The evaluation also uncovered participant and programmatic barriers, as noted by participants and court team members.

Role of MAT

Analysis of UCMS data revealed several notable differences in the odds of OIC completion based on MAT status. Those who received MAT were more likely to complete OIC. Moreover, those who received MAT within the first week of OIC enrollment had a greater odds of completing OIC, suggesting an association between time to receipt of MAT and successful completion. In contrast to other drug treatment court MAT studies where most participants were receiving injectable naltrexone (Baughman et al., 2019; Dugosh & Festinger, 2017; Fendrich & LeBel, 2019), the majority (56%) of OIC participants receiving MAT were prescribed buprenorphine, with only 6% receiving extended release naltrexone, limiting our ability to make meaningful comparisons in outcomes on the basis on MAT type. Naltrexone is an opioid antagonist that blocks the opioid receptor. Extended release naltrexone is taken as once a month injection and requires complete detoxification (Andraka-Christou, 2016; Volkow, 2018; Westreich, 2019). Injectable naltrexone and methadone are administered to patients in a clinical setting; buprenorphine is prescribed in the outpatient setting (Westreich, 2019). For this reason, some judges have expressed hesitation about buprenorphine due to concerns that it may be diverted (Andraka-Christou, 2016). While diversion has been documented, buprenorphine is considered a clinically effective and safe medication with a lower risk of overdose and adverse effects compared to other opioids (Yokell et al., 2011). Moreover, alleviating opioid withdrawal symptoms is a common reason for illicit buprenorphine use, which underscores the importance of expanding access to medication-assisted treatment (Yokell et al., 2011).

OIC participant survey results and court personnel qualitative interviews suggest that both groups found MAT beneficial. An overwhelming majority (90%) of OIC participant survey respondents reported they were receiving MAT and most indicated they would probably continue MAT. Court personnel supported the use of MAT in promoting recovery from OUD, and emphasized that rapid access to treatment is key.

OIC court processes

OIC participant survey responses and court team member qualitative interviews were in concordance in their appraisal of specific court processes. Both groups responded positively to the OIC’s requirements for daily monitoring and accountability. The majority of OIC participants indicated that the number of court appearances, time with judge, and frequency of urine testing should remain the same. Court personnel interviewees mentioned that participant daily court appearances and check-ins fostered a stronger relationship with participants, and the ability to detect when a participant was having problems. Other drug treatment court studies have cited frequent contact with the judge, frequent and random drug testing, and a non-adversarial supportive approach as contributing to successful outcomes – also reflecting the 10 key components of Drug Courts (Gallagher, Nordberg et al., 2019).
Challenges

OIC participant survey results and court team member interviews identified similar participant and programmatic challenges. Both OIC participants and court personnel identified transportation as major a barrier. Transportation has been documented as a barrier in other drug treatment court studies (Gross, 2010; Morse et al., 2015).

OIC survey responses and court team interviews highlighted the challenges of limited social supports. OIC participants gave mixed responses to survey questions about support from friends and feeling connected to their community. Court team members mentioned that participants struggled with isolation and limited access to social networks supporting recovery, lamenting that many participants burned all their bridges. The dearth of social supports and recovery capital among justice-involved populations have been documented in other studies (Boeri et al., 2011; Kahn et al., 2019).

Limitations

This evaluation study focused on a single pilot OIC in Buffalo, New York. The evaluation sample, scope, and resources were limited. Data extracted from the court administrative database may not have included all participants receiving MAT, and limited variability in MAT type reduced our ability to make meaningful comparisons between naltrexone and other types of MAT on completion of OIC. Court administrative databases were not designed to capture MAT, which is usually administered by an outside healthcare provider who also makes treatment decisions (Fendrich & LeBel, 2019). This limitation with MAT data has been identified in other drug treatment court studies (Fendrich & LeBel, 2019). We also did not have access to employment data for people who completed the program.

The OIC participant survey sample size was small, and represented a convenience sample of volunteers that do not match the administrative sample of the court. We were not able to collect information on why some OIC clients chose not to participate in the survey. These survey respondents may have been more adherent to the court requirements and more stable in their recovery compared to OIC participants who did not volunteer to complete the survey. In addition, 90% of the survey participants were on MAT, which might have resulted in a positive bias toward the benefits of medication-assisted treatment. For all of these reasons, responses from the 18 participants cannot be generalized to the program as a whole.

A small number of court team members volunteered to be interviewed, which may have resulted in self-selection bias. The qualitative results are descriptive and exploratory and did not incorporate a theoretical model. The analysis did not entail triangulation of data or other methods to enhance validity. This was a pilot evaluation study to lay the groundwork for future research.

Implications

Despite the limitations, this evaluation has implications for criminal justice policy and practice. Our findings suggest that the OIC is a promising program that promotes rapid access to MAT, participant accountability, and support from the judge and court team. The OIC model integrates criminal justice and health care to address the opioid overdose
epidemic, and is being emulated in problem-solving courts across the United States (Cornwell, 2019).

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Appendix

Opioid Intervention Court Staff Semi-Structured Interview

Introduce self-

Today I am conducting an interview to learn about your experiences and your work with the Opioid Intervention Court. Your participation in this interview is voluntary at all times. You may choose not to participate or to withdraw your participation at any time. You may also choose not to answer any questions you do not wish to answer.

Do I have your permission to record our conversation today? [if No, proceed with documenting interview on paper]

- Could you tell me about your professional background?
  - Where did you go to school?
  - What type of specific training (e.g., legal, criminal justice, counseling) do you have?
  - How long have you been working in the justice system? With the courts?
- Do you have a personal motivation for working in the Buffalo Treatment Court (BTC) Opioid Intervention Program? If so, could you tell me about it?
- Please describe the scope of your work with the Opioid Intervention Court project.
- Please tell me about how you work with other Opioid Intervention Court staff as a team.
- What are some of the challenges that you face in your work?
- What are your thoughts about the different ways that opioid use disorder is treated?
  - Medication Assisted Treatment (MAT)
  - Counseling
  - Self-help groups
  - In-patient treatment (long-term vs. short-term)
- Do you have ideas regarding which treatment approach works best for specific types of individuals? What are they?
- [Depending upon individual’s role in the court]: What informs your treatment recommendations for the participants/defendants?
- In your opinion, which aspects of the Opioid Intervention Court are most beneficial for participants?
- What are your suggestions for improving the Opioid Intervention Court?